

4.0 RETAINING CHARACTER AND MANAGING LANDSCAPE CHANGE

4.1 Introduction

- 4.1.1 Our distinctive landscape heritage is an irreplaceable asset that has been bequeathed to us by earlier generations. All of the landscapes of the Study Area should, in line with the recommendations of the European Landscape Convention, be managed, planned and protected to retain their distinctive qualities and values.
- 4.1.2 North Yorkshire has been blessed with such comparatively extensive areas of nationally designated landscapes and, over many years, the County Council, the National Park Authorities and the AONB's have made significant commitments to successfully retain the special qualities of these internationally valued areas. However, by comparison, those distinctive, attractive and varied landscapes of the rest of the County have tended to be somewhat overshadowed and their significances less widely appreciated until more recently.
- 4.1.3 A better understanding of landscapes provided by Landscape Character Assessment – their diversity, character and distinctiveness, their evolution, sensitivity to change and their management needs – is essential to help in working towards the goal of achieving distinctive and sustainable landscapes and is essential to effective spatial planning.
- 4.1.4 The landscapes of the Study Area also encompass many distinctive aesthetic and perceptual (experiential) characteristics which contribute to local distinctiveness and sense of place. These include non-visible elements, such as sense of tranquillity and wildness, exposure to the elements and visible elements such as dark night skies and changing light patterns. Large parts of the Study Area, particularly in the uplands of the North York Moors and Yorkshire Moors and Dales display a distinctively strong sense of tranquillity and associated dark night skies, whilst changing skies and light patterns are particularly dramatic within the coastal edge landscapes in the east. These distinctive perceptual qualities contribute to recognisable sense of place and are often irreplaceable if lost.
- 4.1.5 The pace and scale of landscape changes will continue in the future. A key challenge is to understand, manage and direct future positive change in the landscape in ways that conserve and enhance its essential characteristics and valued attributes, whilst enabling sensitively designed development to be accommodated and to meet social and economic needs.
- 4.1.6 The conservation and maintenance of landscape distinctiveness, supports the emergence of the concept of green infrastructure, which puts an increasing emphasis on the multi-functionality of landscapes. There is a need for the re-balancing of decision making in managing landscape

change to ensure appropriate emphasis is placed on supporting natural processes and the well-being of land and landscapes, including ecosystem services and benefits which are integral to the health and quality of life for communities and land and landscapes. This supports the need to work towards a long term goal of creating more harmoniously planned landscapes that support more locally sustainable communities in the future.

- 4.1.7 Whilst broad vistas of upland landscapes and the expansive panoramas gained from such upland vantage points are often regarded as the most iconic aspect of the landscapes of the Study Area, it is the distinctive and varied character of the settlements that reflect the harmonious inter-relationship of man and landscape in earlier generations and centuries that are equally valued by residents and visitors to the area. Whilst individual buildings and specific areas of settlements have often been defined for special protection and conservation, development pressures have tended to adversely impact on the overall character and distinctiveness of settlements and their inter-relationships with their landscape setting. It is important to reassess and redefine the distinctive qualities and characteristics of settlements and their sense of place; and their relationship to landscape setting in order to develop a sound basis upon which to make decisions on managing change and thus to retain, protect and restore the distinctiveness of settlements in the future.
- 4.1.8 An increasingly recognised and fundamental aspect of the process of managing landscape change and retaining distinctiveness in settlements is the attention now being given to the protection and expansion of the open space network and of the green infrastructure pattern both within settlements and linking settlements out into the wider countryside. This will support the development of more sustainable and healthy settlement and provide residents and visitors with attractive opportunities for relaxation, exercise and exploration.
- 4.1.9 Distinctiveness is reflective of the layers of time and stages in the development 'written' in the landscape. The landscapes of the Study Area provide a window into earlier relationships between man and landscape and of the earliest post glacial vegetation patterns. It is, therefore, important to understand and appreciate earlier landscapes in decision making on managing landscape change.
- 4.1.10 It is also important to retain the distinctiveness of landscapes, as represented by their unique landscape character as a key factor in maintaining the economy of the Study Area and contributing to the well-being of communities.

4.1.11 The European Landscape Convention¹⁹ is fundamental for the promotion of landscape protection, management and planning. It stresses the need for analysis of the forces and pressures transforming the key characteristics of landscapes and defines landscape planning, protection and management as key purposes of the Convention:

- **Landscape planning** – ‘Strong, forward-looking action to enhance, restore or create landscapes’;
- **Landscape protection** – ‘Actions to conserve and maintain the significant or characteristic features of a landscape, justified by its heritage value, derived from its natural configuration and/or from human activity’;
- **Landscape management** – ‘action, from a perspective of sustainable development, to ensure the regular upkeep of a landscape, so as to guide and harmonise changes which are brought about by social, economic and environmental processes’.

4.1.12 The European Landscape Convention also supports the approach to understanding and to the emphasis placed on character in guiding managing change which has been adopted in the subsequent Section 5.0 of this Study.

4.1.13 In line with the key purposes of the European Landscape Convention, this section sets out a series of proposed ‘high level’ overarching landscape management principles for informing decision-making in relation to landscape change. In line with the Brief, principles have been developed for the following four key drivers of landscape change:

- Agriculture and Land Management;
- Development and Infrastructure;
- Climate Change;
- Mineral extraction.

4.2 Agriculture and Land Management

4.2.1 The following section examines the key forces for change related to agriculture and land management within the Study Area, and identifies suggested ‘high-level’ landscape management principles.

Agriculture

4.2.2 The Study Area has a diverse rural landscape which supports a range of agricultural activities from livestock and dairy farming to cereal and vegetable production. Farming plays an

¹⁹ <http://conventions.coe.int/Treaty/en/Treaties/Html/176.htm>

important role in creating a 'sense of place' in all, but the urban landscapes within the Study Area.

- 4.2.3 In the years since the major reforms of the Common Agricultural Policy (CAP) in 2000, farmers have found the receipts from rural development subsidies more important than those from production-related subsidies. As subsidy payments are increasingly decoupled from agricultural production, the incentive to produce specific commodities is likely to decrease. This is considered likely to have two key effects. Firstly, land uses are likely to diversify, and secondly, production will be more strongly influenced by market demand and therefore types of land use will fluctuate as the relative demand for various commodities changes.
- 4.2.4 In more recent reforms, agri-environment schemes (AES) have been introduced to reward farmers for agricultural production methods compatible with the protection and enhancement of the environment. There are projected gains for landscape and biodiversity, which can offer indirect benefits to the farming community. These schemes can assist and encourage agriculture to face the competitive challenges of the growing and diversifying rural markets. 80% of land in the Yorkshire Dales is managed under AES and funding has been used to repair dry-stone walls and traditional agricultural buildings; and manage hay meadows and moorland.
- 4.2.5 A large proportion of the Study Area (particularly within the North York Moors and Yorkshire Dales National Parks) is managed as upland farmlands, predominantly supporting breeding sheep and suckler cows. These areas are classified as Less Favoured Areas (LFA) in terms of agricultural land quality. Payments from agri-environment schemes (such as the Upland Entry Level Stewardship Scheme) have become increasingly important to upland farmers and make a moderate or significant contribution to the income of 88% of farms in both the Yorkshire Dales and North York Moors. These include the Entry Level Scheme (ELS) and its organic equivalent (OELS), and the Higher Level Scheme (HLS).
- 4.2.6 A network of hedgerows at field boundaries is a key component of the landscape pattern within the Study Area (particularly within the Farmed Lowland and Valley Landscapes). The key threats to hedgerows are therefore neglect and over management. Hedges have, in many cases lost their function as stock proof barriers and are now uneconomic to maintain. There is a general imbalance in the age structure of hedgerow trees within the Study Area, with a large proportion of mature trees. Natural ageing processes, together with water stress in summer and the effects of pathogens will cause many of these trees to become stag headed or die within the foreseeable future. There are incentives for positive hedgerow management as part of many of the Environmental Stewardship schemes.

- 4.2.7 There has been a dramatic loss of species rich meadows since 1930 with conversion to arable, cultivation and reseeded, use of fertiliser and herbicide, and changes to traditional management activities such as hay making. Fragmentation of habitats is also an issue. Valuable habitats within North Yorkshire include Lowland Meadows, Upland Hay Meadows, Floodplain Grazing Marsh, and Arable Field Margins. Upland hay meadows in particular are a distinctive characteristic within the Study Area. There is potential to restore and enhance these habitats through Environmental Stewardship Scheme (ESS) agreements with land owners.
- 4.2.8 The Study Area retains a relatively large number of traditional barns which have not yet been converted. Converted farm buildings may provide an ideal location for rural businesses to act as a catalyst for local training and employment and they represent a means for preserving historic structures which are important local landscape features. However, the trend may lead to negative landscape impacts in sensitive, remote and often prominent rural locations and also to the loss of key features related to architecturally or historically important barns. Barn conversions also place considerable pressure on dwindling populations of barn owls and various species of bats. Ornamental garden plants, garden fences, driveways, car parking and power lines all contribute to the suburbanised character that often accompanies this sort of development. There is also a trend to increasingly make use of poly-tunnels for growing fruit and vegetables. This has a visual impact on the landscape.
- 4.2.9 Within the Study Area, greater numbers of farmers are leaving the industry, and with an increase in the number of people visiting the area, there are an increasing number of farmhouses and associated buildings being sold and converted into housing, often for holiday homes. The domestication of buildings can have a considerable impact on the character of the landscape, especially in remoter locations.
- 4.2.10 As a result of the Renewables Obligation (which is designed to incentivise the generation of electricity from eligible renewable sources in the United Kingdom) there is likely to be an increase in demand for renewable energy crops, such as flax and hemp, biomass or woodfuel. The scale and form of these crops has potential impacts (both positive and negative) on the landscape character of the Study Area. There is a need to assess the desirability of certain typologies of biocrop where this might conflict with wider transitional efforts of reducing global warming (for example competition between different strains and global food production and forest protection). There is also likely to be a continued transition towards organic production, both of livestock and crops (for example organic beef and vegetables).

Moorland

- 4.2.11 The landscape character of moorland within the Study Area relies largely on traditional management practices including extensive sheep grazing; and controlled burning and cutting to create a suitable habitat for grouse. In the Yorkshire Dales, much of the moorland is under agri-environment schemes, however the main management technique is a grazing regime which reduces the number of stock in winter, whilst keeping some cattle grazing in places. Burning and cutting are generally associated with management for grouse and rotations are agreed through agri-environment schemes.
- 4.2.12 Wet acidic grassland provides an important habitat for invertebrates, particularly the small pearl-bordered fritillary, and wading birds. The Study Area also contains some areas of high floristic diversity. Reduced grazing would alter these habitats favouring the development of dwarf-shrub heath, however, this would also require rabbit proofing. Drainage or agricultural intensification would also be likely to have a negative effect on the ecology of these habitats.
- 4.2.13 Upland heathland and blanket bog are priority UKBAP habitats which make a defining contribution to the character of upland areas in North Yorkshire. They are particularly valuable ecologically for their population of nesting birds and much of the area is designated as SSSIs or SACs. The large deposits of peat are also an important carbon sink. This habitat requires appropriate levels of grazing and cutting to maintain vegetation structure. There is often pressure from grouse moor managers to carry out burning, which can result in damage to peat soils. Maintaining hill flocks may become increasingly uneconomic in the future. Development of clough and gill woodland may also be desirable to stabilize the soil. Woodland planting is also desirable, to increase the rate of infiltration of rain water, reduce sediment run off and capture carbon. Natural England (NE) and the Farming and Wildlife Advisory Group (FWAG) are working to identify drainage grips which should be blocked to raise the water table. Actions to restore peat bogs are required to reduce sedimentation (improve water quality) and reduce flooding. Projects such as the 'Peat Partnership' are already beginning to tackle this issue.
- 4.2.14 Overgrazing of moorland and uncontrolled moorland fires have in some areas caused degradation to habitats (particularly blanket peat bog) and an increase in rough grass moorland. Past farming and forestry activities have resulted in the drainage of upland areas causing a loss of peat hags and wet flushes, damage to archaeological features and increased surface water run-off. Recreational activity has caused extensive erosion to some footpaths and summits. Active management is required to re-establish vegetation on bare ground.

Woodland

- 4.2.15 Within the Study Area, traditional coppicing activities in woodland have generally ceased causing increased shade and the loss of native ground flora. The spread of Rhododendrons within woodland is also threatening native species. There is a general imbalance in the age structure of woodlands with a large proportion of semi-mature/mature trees. Natural ageing processes, increased water stress in summer and the effects of pathogens threaten these trees. Sheltering of stock within woodland, together with increased numbers of roe deer, rabbits and grey squirrels, has led to an absence of saplings to regenerate woodland in some areas. Woods can become isolated where habitat linkages between them are broken, preventing the dispersal of species.
- 4.2.16 There has been a steady decline in the planting of coniferous woodland over the past 20 years with no new planting in 2009. A modest amount of new broadleaf woodland continues to be planted. Restocking rates of broadleaf and coniferous woodland have remained relatively constant. Softwood deliveries have increased steadily since 1985, the majority of the wood being used in saw-mills, while hardwood deliveries have fallen steadily over the same period. There is a good supply of softwood in extant woodlands, however the price of wood products is very low and the Forestry Commission is researching ways in which value can be added to forest products. Woodland management and new planting should be supported and encouraged.
- 4.2.17 In general there is a move towards low input forestry systems which meet a number of social, environmental and economic objectives. Woods will be managed to promote recreation, biodiversity, health and learning. The contribution woodlands make to the visual quality of the landscape is also acknowledged by the Forestry Commission. The new emphasis on extensive management, and continuous felling rather than clear felling, will help to create less disruptive forest patterns. Mixed woodlands are also being promoted to improve biodiversity. Coniferous forests provide good habitat for certain bird species and can increase the diversity of woodland habitats. The Forestry Commission also propose to diversify some existing coniferous woodlands.
- 4.2.18 A demand for wood may re-emerge as it is a sustainable building material and a carbon-neutral energy source. Wood may in the future be used for co-firing at existing coal fired power stations, at new biomass power plants, in combined heat and power systems or in wood burning stoves. This may create an incentive to manage existing woodlands or to plant new woodland, providing opportunities to maintain or enhance landscapes with a wooded character.

4.2.19 Woodlands may be used positively to manage soil and water resources. Forest Research has undertaken a mapping exercise in Yorkshire to identify suitable areas of floodplain for woodland planting to deliver benefits for flood risk and water quality. Woodland can help to increase surface water infiltration and also reduce flooding. At Bishop Wood, near Selby, partnership work led by Forestry Commission will lead to the restoration of wet woodland and the creation of ponds, intended to reduce flood risk. The Forestry plan for the region envisages an increase in woodland and more intensive management of existing woodland to produce carbon-neutral fuel and building material.

Overarching guiding principles for managing agricultural and land management change

4.2.20 Strategic programmes, plans, policies and proposals should:

- Contribute to the protection and enhancement of the historic dimension of the present agricultural landscape, including particular historic assets and their setting;
- Encourage the adoption of less intensive farming practices and promote the regeneration of existing hedgerows to enhance key landscape linkages;
- Encourage measures to conserve hay meadows, semi-natural grasslands and species-rich grass verges and encourage the creation of diverse arable field margins;
- Contribute to the positive management of moorland through a carefully controlled burning/cutting regime to maintain and improve the mosaics of moorland habitats, including heather, wet bogs with cotton grass, sphagnum, bilberry and cowberry;
- Encourage the application of a grazing management regimes that promote more favourable conditions of upland semi-natural vegetation;
- Promote the blocking of moorland grips to encourage the re-wetting of blanket bog and the sustainable management of heath to restore areas of erosion and retain key habitats;
- Encourage the restoration of associated areas of degraded blanket bog and peat;
- Ensure that new woodland is planned and created in line with Regional Forestry Frameworks;
- Promote the use of native species and planting stock of local origin for the creation of new woodlands;
- Encourage the sensitive restructuring of existing commercial/plantation woodlands (for example the introduction of broadleaved woodland edges) to help decrease the visual impact;
- Promote habitat networks;
- Restore and strengthen the functions of landscapes as ecosystems.

4.3 Development and Infrastructure

4.3.1 The following section examines the key forces for change related to development and infrastructure within the Study Area, and identifies suggested 'high-level' landscape management principles.

4.3.2 Buildings make a valuable contribution to the scale and identity of landscapes within the Study Area. Today, the distinctive character of the area's buildings and settlements is a product of local vernacular circumstances, however the landscape is constantly changing and there is likely to be pressure from several different types of development, other than just buildings

within the future. The key potential future forces for change relating to development within the Study Area include:

- Tall vertical developments including wind farms or telecommunications masts, which can be visually intrusive and impact upon the landscape character of the area;
- Increasing traffic pressures on minor rural road corridors associated with increased visitor numbers, potentially resulting in increased signage or road improvements;
- Noise and movement of passenger and freight traffic associated with the city of York and principal towns, which may result in pressure for road widening, impacting on overall sense of tranquillity;
- Small-scale cumulative development (e.g. building extensions, residential boundary treatment, roadside concrete curbing and signage) resulting in erosion of integrity and quality;
- Suburbanisation of rural buildings, such as the conversion of farm buildings and the introduction of diversification activities such as equine (horsiculture);
- Introduction of new overhead transmission lines;
- New housing developments at the edges of York, towns or villages;
- Suburbanisation of the landscape around villages and towns, as a result of small-scale extensions to existing urban areas.

4.3.3 The Yorkshire Dales National Park Authority, through their 'draft housing development plan', seek to achieve suitable forms of development which meet the housing need without compromising the special characteristics of the National Park. As a result of the Department of Communities and Local Government proposals to develop a series of 'eco-towns' (new towns which are exemplar green developments of a minimum of 5000 homes, designed to meet the highest standards of sustainability, including low and zero carbon technologies and good public transport) funding has been allocated for several sites within the Leeds City Region. Sites are currently being considered within Selby District. If not designed sensitively, these developments could introduce incongruous elements into the local landscape, which are potentially discordant with local landscape character. Environmental mitigation should be encouraged to offset the landscape effects of urban edge development.

4.3.4 The use of standardised solutions in highway design in terms of minimum curves, visibility, safety barriers and signage have eroded the rural character of many roads which are characterised by hedges, ditches, verges and trees. New roads can introduce a source of noise and disturbance into the surrounding landscape. If present trends in car use continue congestion will become an increasing problem especially in and around towns and cities. This may result in the overall sense of remoteness and tranquillity being lost in rural areas. Measures to avoid this should be encouraged.

4.3.5 Leisure and Tourism is an important industry in North Yorkshire. In 2009 there were 24.6 million visits to North Yorkshire generating a total spend of £1,644 million. Of these 19.6 million were day visits. UK residents made 4.7 million visits and there were 0.4m visitors from overseas. Over recent years there has been a small increase in both the number of trips and the total spend. There are approximately 43,800 tourist related jobs primarily in catering,

retailing, accommodation and attractions and entertainment. It is important to maintain the character and quality of the landscape, as it plays an important role in attracting tourists to the area.

- 4.3.6 Tourism can generate large volumes of traffic within rural landscapes such as the National Parks and AONB's. 76% of visitors travelled to the region by car, placing considerable pressure of rural road and parking infrastructure. Large volumes of traffic can lead to the tranquil, rural character (for which people visit the area) being eroded by vehicle noise, congestion and parking problems within villages and at popular visitor locations. There can also be a problem with tourists choosing not to use car-parks. New infrastructure such as car-parks, signing, road improvements and new buildings, could result in gradual suburbanisation, loss of tranquillity and the introduction of standardised elements into distinctive landscapes. Large numbers of walkers or cyclists on popular routes can cause loss of vegetation cover and erosion of paths and summit areas. Illegal use of motorbikes on green lanes, footpaths and bridleways can cause significant noise, damage to footpaths and disturbance to other users and local residents.

Overarching guiding principles for managing development and infrastructure

- 4.3.7 Strategic programmes, plans, policies and proposals should:

- Encourage careful siting of new housing (including 'eco-towns') and economic development, in keeping with existing landscape patterns and characteristics, to reduce landscape and visual impacts;
- Promote the development of design guidance for new housing and economic development which links character with design, promotes high quality development that respects character, and offer positive opportunities for community engagement in design issues;
- Promote the principle that new development should respect existing landscape features such as trees, hedgerows or traditional stone walls which are important to landscape character and should be retained;
- Encourage the design of new housing and economic development to respect the distinctive landscape settings of settlements, including key approaches to the settlement, inward and outward views, woodland, trees, river corridors and open spaces;
- Encourage the retention of species-rich roadside verges as key landscape features and important wildlife habitats;
- Promote design of new highways infrastructure which avoids and minimises the potentially adverse landscape and visual impacts of new road schemes through careful route selection and engineering design, retention of mature landscape features, on- and off-site planting and sensitive lighting design to limit light pollution and retain dark skies (particularly within the Yorkshire Dales and North York Moors);
- Promote the designation of quiet lanes or access only routes where motorised traffic is discouraged;
- Encourage new minor road improvements that respect existing character and features and avoid the introduction of new features such as boundary treatments that are alien to existing character;
- Encourage assessments to determine whether or not landscapes can accommodate any or additional wind farm development (examining the sensitivity of its character, its key features and qualities);

- Promote the design of potential new commercial scale wind energy developments that are compatible with character of the local landscape and the wider area in which they are visible;
- Encourage sensitive site selection and design in the planting of energy crops in keeping with the scale of the local landscape;
- Encourage sensitive location of overhead transmission lines and telecommunications masts, avoiding sensitive skylines;
- Promote the production of complementary Green Infrastructure Strategies as an integral part of development strategies, plans and proposals;
- Encourage the use of Section 106 agreements to deliver essential Green Infrastructure, landscape enhancement and landscape integration proposals;
- Encourage providers to share telecommunications masts to help minimise new mast construction and avoid sensitive skylines;
- Encourage the use of local building materials and styles when restoring traditional vernacular buildings and in new build developments.

4.4 Climate Change

4.4.1 The following section examines the key forces for change related to climate change within the Study Area, and identifies suggested 'high-level' landscape management principles.

4.4.2 Climate change is increasingly acknowledged as a key driver of future landscape change. Defra's UK Climate Projections Study²⁰ has predicted the type of climate changes that might be expected over the coming century. These predictions include:

- All areas in the UK are likely to get warmer, and the warming is greater in the summer than in winter;
- There is likely to be little change in the amount of precipitation (rain, hail, snow etc.) that falls annually, but it is likely that more of it will fall in the winter, with drier summers for much of the UK;
- Sea levels will rise, but this will be greater in the south of the UK than the north, although the Humberhead Levels could be threatened within the Study Area.

4.4.3 The UK Climate Projection Group (UKCP09) has made the following predictions about the climate of the region in 2050 under a medium emissions scenario:

- winter mean temperature is likely to increase by 1.1C to 3.4C
- summer mean temperature is likely to increase by 1.1C to 3.9C
- winter mean precipitation is likely to increase by 1% to 24%
- summer mean precipitation is likely to decrease by 1% to 36%

4.4.4 On the moors and fells within the Sandstone, Limestone, Gritstone, Siltstone and Sandstone Primary Landscape Units, winter storms and increased incidences of heavy rainfall could wash nutrients from soils. Important peat soils could dry out and begin to release carbon into the atmosphere and there is also a risk of increased incidences of peat and bracken fires. The erosion of gullies from moorland grips as a result of freak rainfall or flash flooding is also a potential issue.

²⁰ <http://ukcp09.defra.gov.uk>

- 4.4.5 From a biodiversity perspective, natural habitats and species may be put under severe pressure from changes in temperatures. The impacts of climate change on peat bogs within the Study Area are also a particular concern. If peat bogs dry out, they could potentially release thousands of years' worth of stored carbon into the atmosphere. The erosion of vegetation cover from blanket bog can reduce its water retention capacity and increase the risk of downstream flood peaks. In this context, the implementation of the Water Framework Directive is likely to have a significant influence on land use and water resource policy in the Study Area in the medium to long term. This may assist in the preservation of blanket peat bog areas and increase the extent and quality of wetland habitats through more integrated and ecosystem-led approaches to catchment management.
- 4.4.6 Increasing frequency of storm events and heavy rainfall are likely to cause continuing problems of flooding within North Yorkshire. Flooding events can often cause damage to, and loss of, historic bridges and buildings. Flooding therefore poses a major risk to the historic character of riverside settlements such as York. In order to protect settlements it may be necessary to adapt buildings, create wash-lands to store river water within the floodplain, or undertake woodland planting or water impoundment measures upstream. Restoring degraded peat bogs could also help to alleviate flood risk as the bog acts as a store for water.
- 4.4.7 There is concern about future trends in water availability in the Humber River Basin District. The current reliance on unsustainable groundwater abstraction means that agricultural practices will need to change. There is also a need to use water more efficiently and this should be reflected in the design of new buildings and their surroundings. Water Sensitive Urban Design (WSUD) will be crucial within new development and measures can be taken to retrofit buildings and settlements. Increasing pressure on water resources, depleted aquifers and a hotter, drier climate will make low-flow events in rivers more likely, and this will have a negative effect on river habitats. The Humberhead Levels Partnership is proposing to create and restore 167ha of wetland habitat in the Humberhead Levels. The eventual target is to restore or create 2320ha of wetland including reedbeds, grazing marsh, ponds and wet grassland. Well located wetlands provide flood water storage and improved water quality, sequester carbon, and have ecological and social value.
- 4.4.8 Rising sea levels will create the need either for improved coastal defences or managed retreat. Shoreline Management Plans (SMPs) aim to provide the basis for sustainable coastal defence policies over the next fifty years and to set the framework for the future management of risks along the coastline. In some areas, in particular at Robin Hoods Bay, but also in the case of individual properties elsewhere along the coast, there may be loss in the long term. The defence line within Scarborough is likely to become increasingly difficult to maintain. Actions

undertaken to protect vulnerable flood areas need to protect the beach which forms a natural defence. New defensive measures may also be needed to protect Filey. To the south of Filey, natural retreat is proposed.

- 4.4.9 As a response to climate change, there is a strong emphasis on moving towards generating energy from renewable as opposed to finite sources. Renewable energy can include a number of forms, from wind technology (single turbines and wind farms) to biomass, solar and hydro-electric technologies, all of which are likely to have impacts on the landscape if not sensitively designed and sited. It is important to ensure that renewable energy development does not detract from the special qualities of the landscape. The scale and form of wind farms should be compatible with the character of the local landscape and that of the wider area in which they are visible. Care should also be taken to ensure that the cumulative impact of wind farms in any one locality is not excessive. Overhead power lines and other wires can also have an intrusive impact on the landscape, particularly within those landscapes with high visual sensitivity.
- 4.4.10 North Yorkshire Sustainable Energy Study²¹, undertaken for a partnership of Local Authorities in North Yorkshire, sets out planning guidance to encourage the appropriate development of sustainable energy within the County.

Overarching guiding principles for managing projected impact of climate change

4.4.11 Strategic programmes, plans, policies and proposals should:

- Encourage sensitive site selection including avoidance of sensitive skylines and important views;
- Encourage sensitive design of renewable energy technologies such as wind turbines, biomass plants and energy crops;
- Encourage habitat linkage within agricultural landscapes to increase robustness to climate change;
- Encourage the use of Sustainable Urban Drainage Systems (SUDS) within the design of new housing and economic development both within and outside flood risk areas;
- Encourage the retention of a range of ecological habitats and species to encourage the local spread of species if a habitat becomes inhospitable as a result of climate change;
- Encourage the maintenance and creation of a series of ecological networks, with buffer zones around high quality habitats;
- Encourage the natural development of rivers and coasts to increase the potential for species and habitats to adapt naturally to these changes;
- Encourage the implementation of a multi-functional network of greenspaces and links (Green Infrastructure).

²¹ Delivering Sustainable Energy in North Yorkshire: Recommended Planning Guidance, 2005

4.5 Mineral Extraction

- 4.5.1 The following section examines the key forces for change related to mineral extraction within the Study Area, and identifies suggested 'high-level' landscape management principles.
- 4.5.2 Mineral extraction has a long history in North Yorkshire. It has been suggested that the Romans were interested in occupying Yorkshire in order to exploit the mineral wealth of the region, especially the Pennine Moors. However mining activities probably began long before Roman occupation. The disruptive nature of mining activities to the landscape can be seen in many of the upland areas in North Yorkshire where spoil heaps and heavily eroded water gullies are remnant landscape features.
- 4.5.3 There are a number of active quarries within North Yorkshire providing a range of products including sand and gravel aggregates and limestone. The Yorkshire Dales National Park contains several quarries, located mainly in the limestone regions and producing crushed rock aggregate for use in the construction industry. There are also active quarries producing building and roofing stone at Hill Top, near Keld and at East Witton.
- 4.5.4 Use of vernacular building materials, particularly stone, is considered important in maintaining and strengthening the character of settlements within the Study Area. Many of these vernacular materials are imported from China and India and the Yorkshire Dales National Park Authority has shown an interest in the development of local quarries which could provide a source of building stone. The effects of each individual proposal on the environment should be assessed and cumulative effects should also be considered.
- 4.5.5 Extensions to quarries or development of new quarries will result in changes to landform, land use and vegetation cover. Quarries may be prominent within views depending on location and topography. Recent quarrying activity can create artificial landforms and the colour contrast of exposed rock can increase the visual prominence of the quarry. Banks or planting intended to screen quarries may introduce new and discordant features into the landscape, particularly where local species or boundary features are not used. Quarries may cause an increased amount of large vehicles in rural areas detracting from the tranquillity of the area and increasing pressure on the road system. Road improvement schemes associated with quarries might introduce standardised road design, including safety barriers, embankments and cuttings, fencing, and signing, which are poorly integrated with their rural setting.
- 4.5.6 There is considerable scope for mitigating the landscape and visual impacts of quarrying and suitable proposals should be submitted as part of planning applications. Blasting can be used to restore more natural landforms and vegetation cover can be easily re-established. Limestone

quarries in particular can become valuable habitats while lowland gravel extractions have become important wetland sites.

Overarching guiding principles for managing mineral extraction

4.5.7 Strategic programmes, plans, policies and proposals should:

- Promote the design of any new mineral development in sympathy with existing landscape character or of earlier stages of landscape evolution;
- Encourage the enhancement of landscapes and habitats through the creative restoration of mineral workings to restore or enhance landscape character. Particular care should be taken to encourage the creation of post mineral extraction landscapes that have an affinity with their existing landscape setting or of earlier stages of landscape evolution;
- Contribute to the protection of features of mining and quarrying heritage (such as old quarries) which may offer opportunities to understand and enjoy aspects of the Study Area's rich geology, history and building materials;
- Encourage the preparation of a mitigation strategy that embraces a landscape scale approach and conserves and enhances the distinctiveness and well-being of the surrounding landscape and supports the development of a green infrastructure approach.

4.5.8 North Yorkshire County Council will, during 2011, carry out a Study which will assess environmental character and significance for areas of surface mineral resource potential, covering historic environment, biodiversity and landscape issues, to inform the preparation of the North Yorkshire Minerals and Waste Development Framework.

5.0 THE LANDSCAPES OF NORTH YORKSHIRE AND YORK

5.1 Urban Landscapes

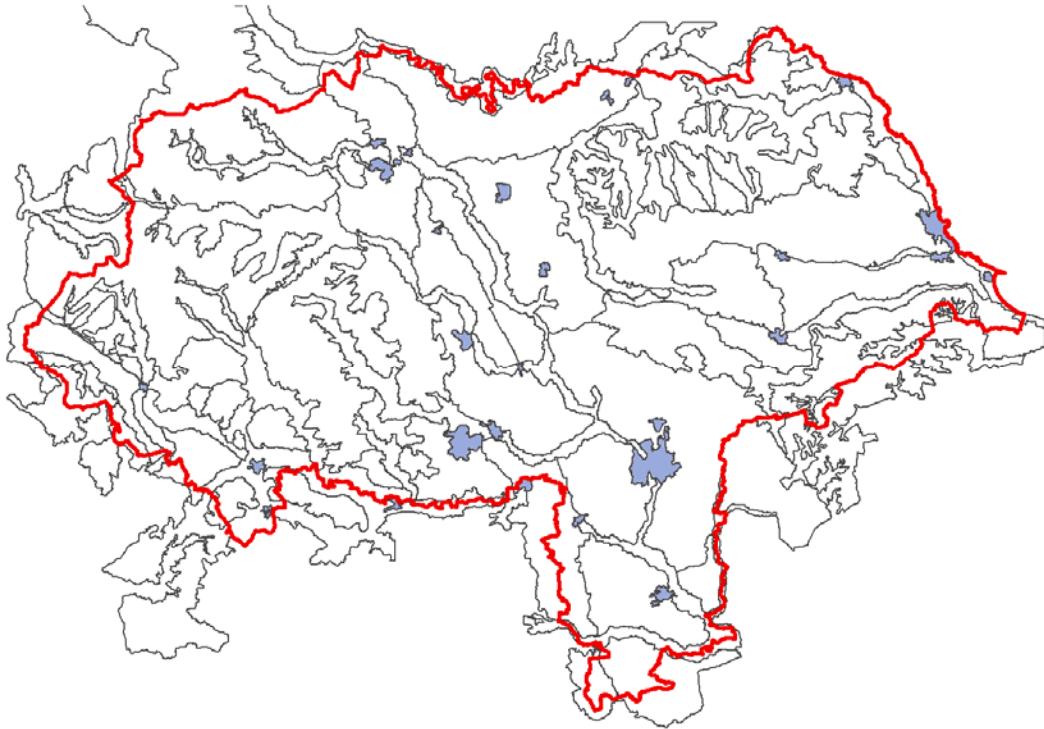
5.1.1 Urban Landscapes are classified as a Primary Landscape Unit and Landscape Character Type. For the purpose of this Study, urban landscapes have been defined as urban environments which encompass cities and principal towns. Villages and hamlets are considered to form an integral part of the Landscape Character Type within which they are located.

5.1.2 Urban landscapes are scattered throughout the Study Area and encompass a wide variety of architectural styles and layouts. The majority of urban areas are characterised by a spacious street pattern of low buildings, garages and gardens, although there are also examples of high-rise buildings within York and the larger towns of Scarborough, Harrogate and Ripon. Most of the urban areas within the Study Area have grown rapidly in the last three hundred years, however most have strong historic origins.

5.1.3 The following settlements have been identified as urban landscapes:

- York;
- Ripon;
- Knaresborough;
- Harrogate;
- Scarborough;
- Selby;
- Skipton;
- Whitby;
- Northallerton;
- Richmond;
- Malton;
- Catterick;
- Bedale;
- Thirsk;
- Boroughbridge;
- Pickering;
- Filey;
- Tadcaster;
- Settle;
- Stokesley;
- Great Ayton;
- Leyburn;
- Easingwold

URBAN LANDSCAPES (1)



CHARACTERISATION

Key Characteristics

- Contrasts in settlement size and pattern, encompassing a mixture of cities and principal towns;
- Settlements often contain a historic core which encompasses a pattern of historic buildings and streetscapes, displaying a vernacular tradition of local building materials;
- The historic core is often surrounded by Victorian residential expansion and more modern suburban housing areas;
- Urban areas also contain a mixture of industrial and commercial areas, alongside town and city centres – containing wide range of shops;
- Urban areas usually contain a patchwork of green spaces/corridors amongst the urban fabric, including parks, encapsulated countryside and river corridors;
- Different ages of settlement are reflected by contrasting street patterns, densities and architectural styles, although there is often homogeneity within different areas of townscape (for example, Victorian suburbs and post 1960's suburbs);
- The surrounding landscape provides a setting for the edges of each urban area, which is a determining factor in their distinctiveness and sense of place.

Description

- 5.1.4 Many of the urban areas have a vernacular tradition of local building materials (such as limestone, gritstone and sandstone), which is visible within the present architectural character. Modern developments have, however, made use of many different materials, some of which are standardised and not of local origin. This has resulted in a loss of local and regional identity within parts of some urban areas.
- 5.1.5 The City of York and several of the historic market towns within the Study Area have Roman origins. York was an important garrison for the Roman Army whilst settlements developed at

Catterick and Malton around Roman forts. There is also evidence of a Roman Fort at Scarborough.

- 5.1.6 Many of the towns within the Study Area came to prominence in the medieval period. Whitby and Selby were associated with Benedictine Monasteries, while Ripon partly depended on its Minster. Pickering and Richmond were associated with castles and although Skipton had a castle the population was relatively small. A Carmelite friary was established at Northallerton which also possessed a hospital, founded in 1200.
- 5.1.7 In the early modern period York remained the principle urban area, however market towns also grew at Whitby, Scarborough, Malton, Knaresborough, Richmond, Harrogate, Ripon and Northallerton. Towns often contained larger houses belonging to the new professional and mercantile classes. York was a prosperous mercantile town and Whitby was a successful port. Scarborough and Harrogate were prominent spa towns with coffee houses, billiard halls and luxury shops to cater for visitors. A number of new civic buildings were constructed at this time. Assembly rooms were built in many of the larger towns and several towns acquired new town halls. Theatres and public libraries were built in many towns in the late eighteenth and early nineteenth centuries. Charitable institutions built hospitals, asylums, almshouses, dispensaries and schools. The aristocracy, professionals and merchants constructed substantial, classical style houses around market places and along principle thoroughfares in many towns.
- 5.1.8 In the nineteenth century, when adjacent industrial towns experienced large population growth, the towns within the Study Area grew slowly, and some scarcely at all, preserving much of their earlier character. The railways and canals caused significant growth in York, Skipton and Selby. Edge of town villas and terraces began to develop in the nineteenth century.

Definitive Attributes

Geology	<ul style="list-style-type: none"> Not applicable. Urban areas are underlain by a mixture of different types bedrock and superficial geology
Topography & Drainage	<ul style="list-style-type: none"> The topography and drainage of urban areas varies, however, there is often a pattern of settlements located adjacent to the coast (Scarborough, Whitby, Filey) and river corridors (York, Ripon, Knaresborough, Selby, Richmond, Malton, Thirsk).
Land Cover	<ul style="list-style-type: none"> Land cover is predominantly urban, encompassing a mixture of residential, industrial and commercial buildings. Urban parks and pockets of encapsulated countryside are also key features of townscapes.
Enclosure / Field Pattern	<ul style="list-style-type: none"> Not applicable. Varying patterns of streets combine to create areas of distinctive townscape character.
Settlement Pattern	<ul style="list-style-type: none"> At the broadest level, urban areas display a predominantly linear or nucleated settlement pattern; Within different areas or neighbourhoods, street pattern is often based upon the underlying type/age of the townscape, for example, the distinctive grid pattern of Victorian terraces, curvilinear layout of post-1960's housing estates and mixed pattern of narrow medieval plots within historic cores.
Visible Historic Features	<ul style="list-style-type: none"> Urban areas often contain numerous visible historic features, particularly within the historic core. These may include Scheduled Monuments and Listed Buildings, which are often key historic landmarks and tourist attractions.

EVALUATION

Forces for Change

Development and Infrastructure

- Pressures for additional housing, retail and commercial development, often within historic cores or on greenfield land within the landscape settings of settlements;
- Frontage infill housing development in the gardens/plots of existing properties within existing low density housing areas;
- Pressure for backland development within the rear gardens of properties within existing large plots;
- Pressures for redevelopment of existing brownfield sites and conversion of historic buildings;
- Traffic pressures associated with new development within and at the edges of cities and towns.

Climate Change

- An increased flood risk to townscapes, particularly if in close proximity to river corridors as a result of changing weather patterns and climatic conditions;
- A risk of fiercer storms along the coast could result in damage to coastal cities and towns;

Sensitivity to Change Issues

- The visual sensitivity of urban landscapes varies in accordance with the underlying topography and visual screening present at the edges of the urban area. In some cases, townscapes have harsh urban edges, with little visual screening, whilst in others, buildings are screened and softened by a combination of hedges and trees.
- Many of the urban greenspaces within cities and towns, such as urban parks, river corridors and woodlands have high ecological value and have a function as part of the network of green ecosystems. These spaces and habitats are sensitive to new residential, industrial or commercial developments which may result in changes in character or loss;
- The overall townscape sensitivity of different areas within towns and cities, varies in accordance with the number of significant townscape qualities, including historic buildings and settlement pattern, distinctive architectural styles, leafy streetscapes, notable landmark buildings and street pattern.

GUIDANCE

Guidance for Managing Landscape Change

Physical and Ecological Character

- **Protect** the open character of greenspaces within urban areas as important elements of the overall townscape;
- **Maintain** and, where possible, enhance access and visual linkages between urban areas, greenspaces and adjacent areas of landscape setting;
- **Consider** additional/new planting within streetscapes to form a green setting to development;
- **Ensure** that new large-scale development include a strong landscape framework;
- **Protect** and **manage** existing ecological habitats within the urban form, including parks, nature reserves, woodland and other incidental open spaces.

Cultural and Historic Character

- **Preserve** high quality historic townscape elements that contribute to townscape character and are key landmarks;
- **Ensure** that any new development responds to the existing scale and grain of the urban form, supporting the existing townscape elements rather than drawing attention away from them;
- **Carefully consider** the local character of streetscapes and existing historic buildings, incorporating forms, materials and details which are appropriate to existing vernacular townscape character;
- **Preserve** and **incorporate** industrial heritage elements within development and regeneration proposals.

Aesthetic and Perceptual Character

- **Conserve** the pattern of key views between built up areas and the surrounding open countryside

Signposts to Further Landscape Character Assessment Information

National Character Area

- Various

Local Townscape/Heritage Character Assessments

- York New City Beautiful: Towards a York Economic Vision
http://www.york.gov.uk/environment/Planning/Local_development_framework/LDF_Evidence_base/YorkNewCityBeautiful/
- Knaresborough Conservation Area Appraisal
http://www.harrogate.gov.uk/Documents/DS-P-Knaresborough_CAA_Approved_B.pdf
- York Conservation Area Appraisals:
 - [Castle Piccadilly Conservation Area Appraisal \(PDF, 33 pages, 3.43MB\)](#)
 - [Fulford Road Conservation Area Appraisal \(PDF, 30 pages, 1.75MB\)](#)
 - [Fulford Village Conservation Area Appraisal \(PDF, 28 pages, 7.03MB\)](#)
 - [Heslington Conservation Area Appraisal \(PDF, 49 pages, 3.63MB\)](#)
 - [Nestlé / Rowntree Factory Conservation Area \(PDF, 23 pages, 2.92MB\)](#)
 - [Race Course and Terry's Factory Conservation Area Character Appraisal \(PDF, 49 pages, 4.65MB\)](#)
- Ripon Conservation Area Appraisal:
 - http://www.harrogate.gov.uk/Documents/DS-P-RiponCAA_approved240609_C.pdf
- Boroughbridge Conservation Area Appraisal:
 - http://www.harrogate.gov.uk/Documents/DS-P-CAA_BBridge_121108_B.pdf
- The Richmond Swale Valley Initiative: A Strategic Framework for the Sustainable Economic, Social and Environmental Use of Richmond, the Swale

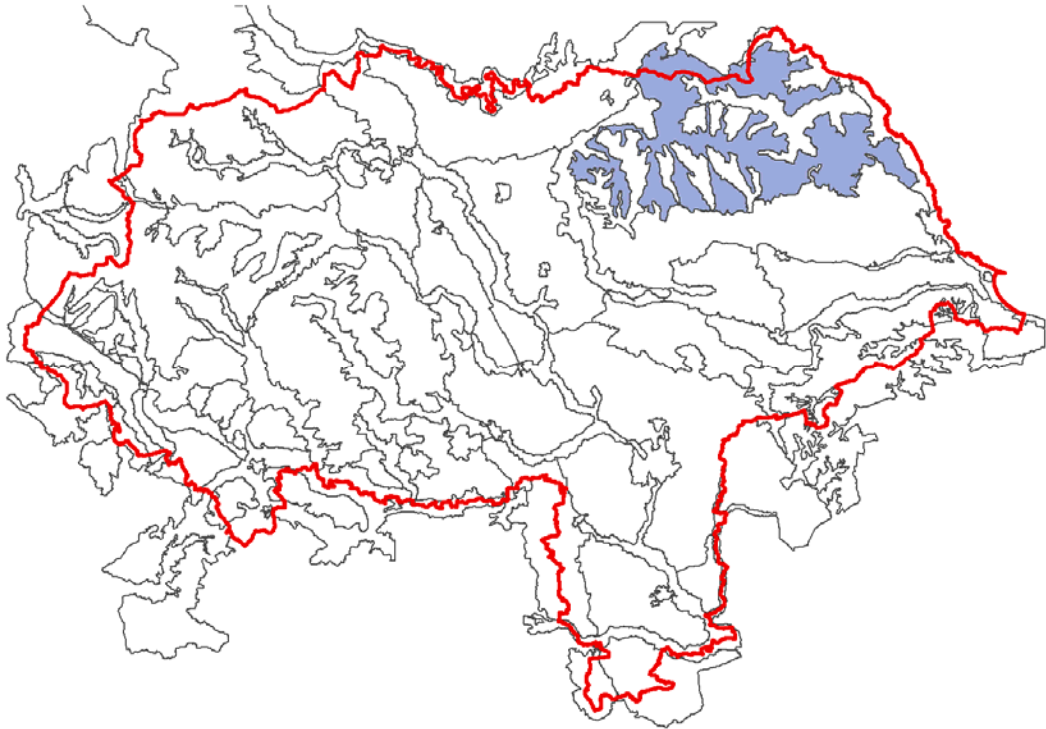
5.2 Sandstone Landscapes

5.2.1 The Sandstone Landscapes are situated in the northeast of the Study Area and predominantly fall within the North York Moors National Park.

5.2.2 The following Landscape Character Types form the Sandstone Landscapes Primary Landscape Unit:

- Sandstone Moors (2)
- Sandstone Moors and Foothills (3)

SANDSTONE MOORS (2)



CHARACTERISATION

Key Characteristics

- Elevated sandstone plateaux and moorland hills which support extensive swathes of heather dominated dwarf shrub communities;
- Open and undeveloped character with an absence of artificial structures or trees;
- Dynamic pattern of ecological habitats, including blanket bogs, pools and upland heath habitats;
- Large areas of coniferous woodland are a striking feature in the south and provide a strong sense of enclosure;
- Strong sense of isolation and tranquillity with associated dark night skies;
- Dramatic views across adjacent Narrow Upland Dales and into lower lying landscapes.

Description

5.2.3 The Sandstone Moors Landscape Character Type is located in north-eastern part of the Study Area and is centred on the North York Moors National Park. Landscape character is dominated by plateaux and hills which support extensive areas of heather moorland, interspersed with pockets of blanket bog. There is a strong sense of space, expansiveness and openness. The plateaux drop off steeply into a series of well-defined narrow moorland dales whose intimate character is in stark contrast to the simplicity of the surrounding moorland landscape. Panoramic long distance views are available across the strong horizons of the moors, across lower lying areas and into the dales. The open skies create a dramatic and ever changing backdrop to the landscape and contribute to a recognisable sense of place. At night, the darkness of the skies is a key feature, with an associated strong sense of tranquillity. Bracken predominates on the steeper slopes of the moorland edges intermixed with upland heath, small areas of scrub, rough grassland and upland heath/grassland mosaics. Occasional sandstone outcrops mark the moorland edges and scattered boulder fields are present on the moor tops.

Definitive Attributes

Geology	<ul style="list-style-type: none"> • Predominantly underlain by bedrock geology of sandstone, mixed with siltstone and mudstone • Pockets of mudstone, sandstone and limestone are also present
Topography & Drainage	<ul style="list-style-type: none"> • Forms some of the highest land within the Study Area, encompassing high moors, reaching 454 metres AOD on Urra Moor
Land Cover	<ul style="list-style-type: none"> • In the west, the highest land corresponds with tracts of blanket bog • The remainder of the Landscape Character Type is covered by a patchwork of dwarf shrub heath and open dwarf shrub heath • In the east, large areas of coniferous woodland punctuate the landscape • At the northern edge, pockets of improved grassland are also a feature
Enclosure / Field Pattern	<ul style="list-style-type: none"> • Most of the higher land is covered by extensive heather moorland which has significant legibility with little change since 1850 • In lower locations, large areas of open common are key features which have also seen little change since 1850 • In the north, small areas of parliamentary enclosure are interspersed with pockets of reverted moorland • Large-scale areas of coniferous plantation are also a key feature of field pattern in the east of the Sandstone Moors
Settlement Pattern	<ul style="list-style-type: none"> • Sparsely settled, with population concentrated in the Narrow Upland Dales (cutting through this Landscape Character Type) and around the fringes • Farms are built of predominantly rubble limestone or dressed sandstone with red pantile or slate roofs
Visible Historic Features	<ul style="list-style-type: none"> • Disused collieries • A cairnfield, field system, burial cairns and prehistoric rock art to the south of Morton Close, in the east of the Sandstone Moors • Cairnfields, cross dykes and funerary monuments at Danby Rigg • Prehistoric settlements and field systems at Crown End • Cairn cemetery and earthworks on Great Ayton Moor • Round barrows, east of Lonsdale Plantation, Kildale Moor • Field system, including over 300 clearance cairns and two hut circles at Iron Howe • Cairnfield on the south west of Hawnby Moor, including a round barrow and a standing stone • Cairnfield 500m northeast of Bumper Castle • Unenclosed Hut circle settlement, field system and round cairn cemetery on Harland Moor • Hollins Mine and Bank Top Iron calcining kilns • Cairnfield and field systems on Saltergate Moor • Field system and cairnfield on Lockton High Moor • Cairnfield on Standingstone Rigg, including a cup and ring marked rock • World War II Bombing Decoy to the northwest of John Cross

EVALUATION

Forces for Change

Agricultural Change and Land Management

- Decline in traditional management technique of burning of dwarf shrub heath and open dwarf shrub heath
- in favour of cutting, which changes landscape pattern;
- Drainage of blanket bog in some areas;

- Conversion of farmhouses to residential dwellings resulting in the introduction of suburban elements, such as lighting (resulting in a loss of dark skies), gates, boundary features and exotic planting;
- Spread of bracken and scrub which may create a monoculture and displace traditional moorland vegetation communities which support nesting birds. Bracken changes the colour of the landscape and is unpalatable to sheep. It is also an invasive species;
- Limited enhancement of heather moorland and management of heather moorland habitat between 1999-2003²²;
- Active woodland management and the creation of new woodlands on the slopes of the valley sides at of the Dove at upper Bilsdale between 1999 and 2003²³.

Development and Infrastructure

- Surfacing of moorland tracks and estate shooting tracks with limestone which does not reflect the colours and geology, making them visually prominent within the landscape;
- Increased access to open areas can disturb wildlife, particularly ground nesting birds;
- Erosion of footpaths and moorland summits;
- Increases in traffic generated by tourism resulting in congestion, signing, lighting, parking controls, damage to verges and the introduction of standardised highway elements into predominantly rural areas;
- Reduction in dark night skies between 1993 and 2000, and increases in intrusion from traffic during the same period²⁴.

Climate Change

- Summer droughts, leading to increased risk of uncontrolled moorland fires, resulting in damage to fragile moorland environments and an increase in drought-resistant species;
- The future blocking of drainage grips is essential in maintaining soil resources, improving water quality and reducing flooding downstream (within adjacent Dales);
- Planting gill woodlands could have considerable benefits for water management and would be consistent with existing landscape character;
- An increased focus on the importance of upland peat soils for carbon storage may see increased resources being put towards protection and restoration of moorland and blanket bogs;
- A requirement for increasing renewable energy generation could result in increased pressure for wind turbines.

Sensitivity to Change Issues

- Overall high visual sensitivity as a result of the strong sense of openness and uninterrupted skylines, coupled with strong intervisibility with adjacent Landscape Character Types, which is sensitive to the introduction of tall vertical structures such as wind turbines or communication masts and invasion by trees and scrub;
- High ecological sensitivity as a result of the patchwork of habitats including blanket bog and heather moorland (dwarf shrub heath/open shrub heath) which often support rare species. This is recognised by the designation of much of the Landscape Character Type as a Special Protection Area (SPA), Special Area of Conservation (SAC) and Site of Special Scientific Interest (SSSI);
- These ecological habitats are sensitive to burning, invasion by trees and scrub, atmospheric pollution and changes in climate;
- High landscape sensitivity as a result of the predominantly intact landscape pattern, strong sense of remoteness, tranquillity and dark night skies;
- Numerous archaeological sites, often well preserved, are sensitive to disturbance or changes in land management practices.

²² Based on 'Countryside Quality Counts' research

²³ Based on 'Countryside Quality Counts' research

²⁴ Based on 'Countryside Quality Counts' research

GUIDANCE

Guidance for Managing Landscape Change

Physical and Ecological Character

- **Protect, manage** and **enhance** large areas of open moorland with their complex mosaics of dry heath, wet heath, flushes and bogs, species-rich grasslands, semi-natural broadleaved woodland and other semi-natural habitats to strengthen overall landscape character;
- Bring moorland habitats into sound management for biodiversity, landscape and the protection of widespread but vulnerable archaeological evidence;
- Seek opportunities to **restore** and **extend** moorland habitats to achieve a strong habitat network and reduce the threats of fragmentation;
- **Maintain** blanket bog in good condition and maintain sustainable grazing intensities and sensitive burning programmes to promote structural and biological diversity and preserve upstanding and buried archaeology.

Cultural and Historic Character

- **Protect** the rich range of historic landscape features including disused collieries, cairnfields, historic field systems and other upstanding monuments;
- **Protect** the sparse settlement pattern and predominantly vernacular building style of rubble limestone or dressed sandstone with red pantile or slate roofs;
- **Promote** the use of local building materials, such as rubble limestone or dressed sandstone with red pantile roofs, as appropriate for repairing traditional buildings and for new build.
- **Protect** and **manage** the moorland, which contains much archaeological and paleoenvironmental evidence;
- **Maintain** sustainable grazing intensities and scrub and bracken management on archaeological sites.

Aesthetic and Perceptual Character

- **Maintain** open, undeveloped areas of moorland to retain panoramic views and openness;
- **Maintain** the overall sense of tranquillity and remoteness;
- **Maintain** public access to enable enjoyment of this landscape and the sense of 'escapism' and 'inspiration' it provides whilst protecting vulnerable habitats, through the network of public footpaths and open access land;
- **Minimise** light spill at night through careful lighting design.

Signposts to Further Landscape Character Assessment Information

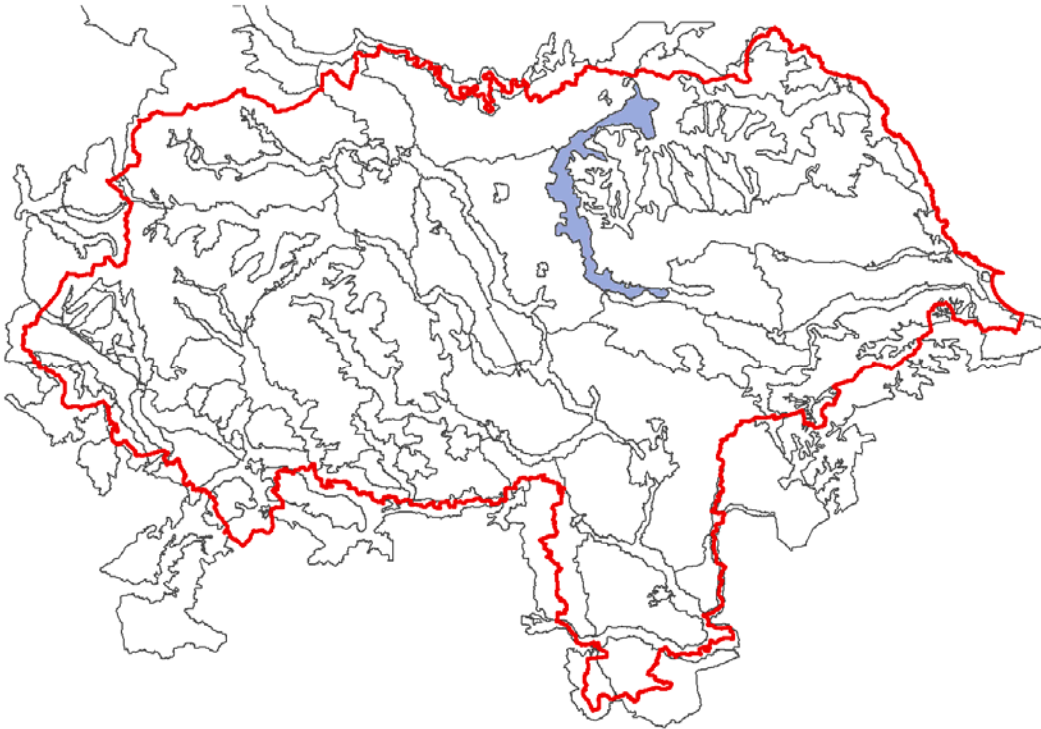
National Character Area

- NCA 25: North Yorkshire Moors and Cleveland Hills
http://www.naturalengland.org.uk/Images/jca25_tcm6-5621.pdf

Local Landscape Character Assessments

- North York Moors National Park Landscape Character Assessment (2003).
<http://www.northyorkmoors.org.uk/content.php?nID=372>
- Hambleton Landscape Character Assessment (1991)

SANDSTONE MOORS FOOTHILLS (3)



CHARACTERISATION

Key Characteristics

- Open, undeveloped and visually prominent skylines;
- Predominantly agricultural landscape with several large blocks of coniferous woodland;
- Historic settlement pattern of villages located at the scarp foot;
- Mature network of hedgerows, often containing hedgerow trees;
- Pattern of medium sized fields with woodland on the steeper slopes;
- Strong inter-visibility with surrounding lower landscapes and adjacent Sandstone Moors;
- Disused quarries and mineral workings are landscape features.

Description

- 5.2.4 This Landscape Character Type abuts the western and south-western edges of the Sandstone Moors, forming the western scarp of the Hambleton Hills. It is predominantly within the North York Moors National Park and the southern edge is within the Howardian Hills AONB. The landscape is well treed, and forms a distinctive, steeply graded escarpment which provides a transition between the Sandstone Moors and the lower farmed landscapes to the west and northwest. The edges of this Landscape Character Type are indented as a result of the series of valleys or dales which cut into the flat topped promontories. Outlying conical hills are a distinctive feature of the landscape, with particular frequency in the south west of the Landscape Character Type. The form of the hills is often given emphasis by plantations partly clothing their sides. Dramatic, long-distance, panoramic views across adjacent lower landscapes contribute to recognisable sense of place. The escarpment is frequently wooded, with commercial coniferous trees contributing to a regular landscape pattern. Areas of open escarpment, where unimproved grass, gorse and bracken are common, have considerable visual variety and wildlife value. Foothills fringing the escarpment are characterised by strip fields of grazing land, with mature deciduous woodland and frequent hedgerows and

hedgerow trees. The network of minor roads is largely confined to the foothills and lower slopes of the escarpment and within valleys on the plateau. Overall, there is a relatively strong sense of remoteness and tranquillity throughout the Sandstone Moors and Foothills.

Definitive Attributes

Geology	<ul style="list-style-type: none"> • Bedrock geology is predominantly sandstone with small pockets of mudstone • In the north, bedrock is overlain by superficial deposits of Diamicton (a glacial deposit)
Topography & Drainage	<ul style="list-style-type: none"> • This Landscape Character Type encompasses sloping land, from the higher Sandstone Moors in the east towards the lower vale landscapes in the west • The landscape is cut by a series of east-west running becks that drain from the higher moors in the east to the vale in the west
Land Cover	<ul style="list-style-type: none"> • Predominantly improved grassland, interspersed with small pockets of arable fields in the north • Relatively large patches of coniferous woodland also punctuate the landscape and sinuous belts of deciduous woodland follow the beck corridors
Enclosure / Field Pattern	<ul style="list-style-type: none"> • A patchwork of medium-sized fields which are the product of piecemeal enclosure, interspersed with pockets of parliamentary enclosure fields
Settlement Pattern	<ul style="list-style-type: none"> • Villages are generally located on elevated undulating land at the foot of the main escarpment • Buildings generally face road corridors, in a linear form on either one or both sides • Outside the villages scattered farms nestle within groups of trees and are generally well integrated in the landscape
Visible Historic Features	<ul style="list-style-type: none"> • Medieval settlement of Little Broughton, with associated field system and site of medieval chapel • Whorlton motte and bailey castle and tower house with associated earthworks, ponds, park pale field system, deserted village and church • Mount Grace Priory Carthusian Monastery, including monastic precinct, fishponds, moat, mill and well houses • Kirby Knowle medieval settlement • Promontary Fort at Roulston Scar • Iron Age hillfort at Boltby • Byland Abbey Cistercian Monastery including monastic precinct, water-management earthworks, enclosures, ancillary buildings and quarries

EVALUATION

Forces for Change

Agricultural Change and Land Management

- Decline of woodland due to neglect, changes in management, and increased grazing pressure from stock sheltering within woodlands and herbivores such as rabbits and deer;
- Decline of hedgerow trees and copses due to neglect, changes in management and absence of new planting;
- Disrepair and loss of dry stone walls, neglect of hedges and replacement of walls and hedges with fencing, resulting in changes to landscape pattern;
- Potential for marginal farmland to revert to an unmanaged state, leading to the invasion of coarse grasses, bracken or scrub, as a result of changing farming practices.

Development and Infrastructure

- Increased traffic , resulting in problems of congestion, parking, damage to verges, stress to historic bridges, the possible introduction of standardised highway elements and loss of overall sense of tranquillity and remoteness;
- Potential new large scale developments occurring beyond the National Park boundary, such as major roads, telecoms masts, wind farms or transmission lines, which can exert a visual influence on the area;
- Reduction in dark night skies between 1993 and 2000, and increases in intrusion from traffic during the same period²⁵.

Climate Change

- Warmer winters could lead to increased tree growth, species migration and the loss of small or isolated habitats in the future;
- A requirement for increasing renewable energy generation could result in increased pressure for wind turbines, woodfuel and the establishment of biomass crops.

Sensitivity to Change Issues

- Overall high visual sensitivity as a result of the open, undeveloped and visually prominent skylines coupled with strong intervisibility with adjacent Landscape Character Types, which is sensitive to the introduction of tall vertical structures such as wind turbines or communication masts and other potential new large-scale developments;
- Moderate ecological sensitivity, as a result of patches of semi-natural ancient woodland and the edges of the North York Moors SPA, SAC and SSSI;
- These ecological habitats are sensitive to invasion by trees and scrub, atmospheric pollution and changes in climate;
- High landscape sensitivity as a result of the predominantly intact landscape pattern (consisting of a patchwork of pastoral fields, delineated by a network of mature hedgerows with hedgerow trees) which are sensitive to changes in management. There is also a strong sense of remoteness, tranquillity and dark night skies;
- Numerous archaeological which are often well preserved, including quarries and mineral working, are sensitive to changes in land management practices.

GUIDANCE

Guidance for Managing Landscape Change

Physical and Ecological Character

- **Protect, manage** and **enhance** patches of semi-natural broadleaved woodland to strengthen overall landscape character;
- **Seek** opportunities to better integrate existing conifer plantations into the landscape and improve their contribution to biodiversity;
- **Manage** coniferous plantations under continuous cover programmes, with sympathetic rotation felling, retention of permanent open areas, ride widening and the clearance of conifers from around watercourses;
- **Protect** the dramatic scarp landform features by using semi-natural landcover to enhance landform features.

²⁵ Based on 'Countryside Quality Counts' research

Cultural and Historic Character

- **Protect** the rich range of historic landscape features including drystone walls, archaeological sites and historic buildings such as Whorlton Motte and Bailey Castle, Mount Grace Priory, Roulston Scar Promontary Fort and Byland Abbey Cistercian Monastery;
- **Protect** the nucleated settlement pattern and key historic buildings within historic settlements such as Little Broughton and Kirby Knowle;
- **Maintain** sustainable grazing intensities and scrub and bracken management on archaeological sites;
- **Encourage** heritage tourism;
- **Promote** the use of local building materials, such as rubble limestone or dressed sandstone with red pantile roofs, as appropriate for repairing traditional buildings and for new build;

Aesthetic and Perceptual Character

- **Maintain** public access to enable enjoyment of this landscape and the sense of 'escapism' and 'inspiration' it provides whilst protecting vulnerable habitats, through the network of public footpaths and open access land;
- **Protect** key views to the Sandstone Moors and Foothills from adjacent lower (Settled Vale Farmland) and higher (Sandstone Moors) Landscape Character Types;
- **Conserve** the overall sense of tranquillity and relative remoteness;
- **Minimise** light spill at night through careful lighting design.

Signposts to Further Landscape Character Assessment Information

National Character Area

- NCA 25: North Yorkshire Moors and Cleveland Hills
http://www.naturalengland.org.uk/Images/jca25_tcm6-5621.pdf

Local Landscape Character Assessments

- North York Moors National Park Landscape Character Assessment (2003).
<http://www.northyorkmoors.org.uk/content.php?nID=372>
- Hambleton Landscape Character Assessment (1991). Southern parts of this LCT lie within the Hambleton & Howardian Hills Landscape Character Assessment (2007)

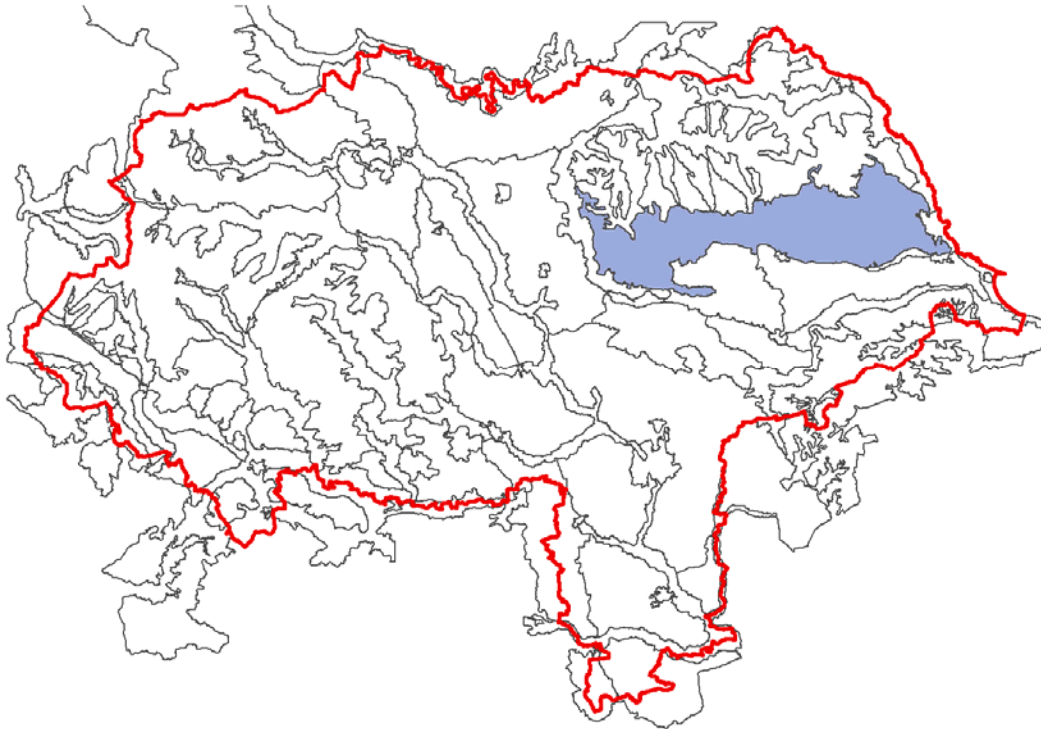
5.3 Limestone Landscapes

5.3.1 The Limestone Landscapes are situated in three main locations within the Study Area. They encompass a series of foothills and valleys at the southern edge of the North York Moors National Park; and also encompass a prominent ridge within the Howardian Hills AONB, to the south. Towards the centre of the Study Area, a broad ridge of magnesian limestone runs north south across the landscape. The third occurrence of Limestone Landscapes is within the Yorkshire Dales National Park, in the west of the Study Area, encompassing Moors and Fells; and Scar.

5.3.2 The following Landscape Character Types form the Limestone Landscapes Primary Landscape Unit:

- Limestone Foothills and Valleys (4)
- Limestone Ridge (5)
- Magnesian Limestone Ridge (6)
- Yoredale Moors and Fells (7)
- Limestone Moors/Scar (8)

LIMESTONE FOOTHILLS AND VALLEYS (4)



CHARACTERISATION

Key Characteristics

- Flat, open summits of the Tabular Hills;
- Ancient woodlands which occupy valley sides;
- Prehistoric mounds and burial sites preserved within moorland or woodland;
- Strong visual unity within settlements and sense of harmony with the surrounding landscape;
- Traditional farm buildings constructed of pale limestone walls and red pantile roofs;
- Distinctive cultural landscape with medieval villages located at the spring line, common arable fields at the base of the hill, and summer pastures above;
- Extensive coniferous plantations are a key feature of the current landscape;
- Contrast between the very narrow wooded valleys, giving a very strong sense of enclosure, with the open arable tops of the Tabular Hills.

Description

- 5.3.3 This Landscape Character Type is predominantly situated in the southern part of the North York Moors National Park. From the coast at Scarborough, it extends westwards along the northern edge of the Vale of Pickering before heading north-westwards to the peak of Black Hambleton. The upper Jurassic rocks of the coastline change to sandstone and limestone moving northwestwards. The Tabular Hills, so-called because of their distinctive 'table-top' shape, comprise limestone and calcareous gritstone and occupy the eastern and central parts of this Landscape Character Type. The northern edge of the Tabular Hills is generally defined by stream valleys that weave along the southern edges of the Sandstone Moors upland plateau (immediately to the north). These valleys coincide with softer 'Oxford Clay' geology, which frequently creates a spring line. Scarp slopes rise up from these valleys to merge with rounded hill tops. The southern sides of these hills have smooth, gently sloping profiles as the rocks dip southwards to drop below the clays of the adjacent Vale of Pickering. The Hambleton Hills

rise above the steep scarp slopes of the Sandstone Moors Foothills on their western edge. The limestone foothills are deeply dissected by densely wooded, intimate, narrow, twisting valleys or dales. Land cover comprises a mixture of arable and pasture farmland and there are large areas of coniferous plantations, particularly in the east (including Cropton, Dalby and Wykeham Forests). The steep valley slopes are wooded with a mixture of broadleaved woodland and coniferous plantations. Linear areas of predominantly ancient, semi-natural woodland occupy a high proportion of the valley sides and escarpments. Fields of medium to large size and regular shape are often bounded by wire fences or overgrown hedges, with occasional walls. There is a strong contrast between the elevated flat hill tops, which are predominantly open in character, and the valleys, which are densely wooded and provide a small scale, intimate and secluded landscape. The hill tops provide extensive long distance views, sometimes broken by coniferous plantations. Settlements in the area are predominantly constructed from local stone, resulting in strong visual unity and sense of harmony. Springline settlements are also sited on the lower dip slope and are generally linear in form. Dramatic, long distance views southwards across the Vale of Pickering and the Chalk Wolds contribute to recognisable sense of place.

Definitive Attributes

Geology	<ul style="list-style-type: none"> • Predominantly underlain by a bedrock of ooidal limestone, which is interspersed with bands of mudstone and sandstone • A superficial geology of clay and silt overlies the bedrock within the series of narrow river corridors which run north south
Topography & Drainage	<ul style="list-style-type: none"> • Topography slopes downwards from north to south from the upland Sandstone Moors, towards the Vale of Pickering • This broad east-west orientated slope is cut by a series of north-south running narrow river valleys which feed into the main corridor of the River Derwent within the Vale of Pickering to the south
Land Cover	<ul style="list-style-type: none"> • The lower slopes, within the south predominantly encompass arable fields, which are interspersed with pockets of improved grassland • Higher slopes in the north are predominantly improved grassland • Large patches of coniferous woodland are also located at the northern edge of this Landscape Character Type. The woodland is associated with areas of dwarf shrub heath in the west and open dwarf shrub heath in the east • Belts of almost continuous deciduous woodland clothe the narrow river valleys that run north south across the landscape
Enclosure / Field Pattern	<ul style="list-style-type: none"> • Several areas of large-scale modern improved fields in the south, on the lower slopes • Interspersed amongst the modern fields are medium to large-scale areas of planned parliamentary enclosure and piecemeal enclosure with an irregular field pattern • Areas of designed landscape, such as Duncombe Park, Ebberston Park and Nunnington are also landscape features
Settlement Pattern	<ul style="list-style-type: none"> • Larger settlements such as Kirkbymoorside, Helmsley, Pickering and East Ayton are situated at the base of the hills where they rise from the Vale of Pickering • Strings of small farmsteads line minor roads running north south through the landscape • Traditional farm buildings often display pale limestone walls and red pantile roofs • Villages tend to be small, linear settlements of ancient origin, (Appleton-le-Moors is a well-known example of a medieval planned village)
Visible Historic Features	<ul style="list-style-type: none"> • Villages are generally of ancient origin, place names show that many have Saxon origins, for example Appleton, Middleton and Sproxtun • Helmsley is a planned 12th century town • Visible features include castles, for example Helmsley, Pickering and

	<p>West Ayton</p> <ul style="list-style-type: none"> • Rievaulx Abbey, Cawthorn Camps, a Roman Road and section of Medieval trackway (known as the Portergate) are also key historic features • Saxon churches at Lastingham and Levisham • Designed landscapes (Historic Parks and Gardens) at Duncombe Park, Ebberston Park and Nunnington • Round barrows and cairns on Ebberston low moor
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EVALUATION

Forces for Change

Agricultural Change and Land Management

- Decline of woodland and wood pasture, due to neglect, changes in management and grazing pressure;
- Decline of boundary trees/hedgerow trees/individual trees/small groups of trees due to neglect and changes in management;
- Damage to geological/geomorphological features from agricultural operations and tree planting;
- Decline in historic agricultural/settlement features (e.g. ridge and furrow, earthworks) due to agricultural intensification and tree planting;
- Damage to archaeological features as a result of agricultural operations;
- Introduction of modern farm buildings, slurry tanks or grain towers which have the potential to be visually intrusive;
- Intensification of agricultural management especially in arable areas, leading to a decline in rough pasture/species rich and wet grasslands in favour of improved pasture, disrepair/loss of dry stone walls; erosion of strip field patterns and decline in or loss of hedgerows;
- Loss of species-rich calcareous grassland and hay meadows in the past (a few examples survive in nature reserves)

Development and Infrastructure

- Damage to the landscape as a result of increased traffic causing parking problems, bridge and verge damage, footpath and bridleway erosion, and off road vehicle/motorcycle/mountain bike activity;
- Potential for increasing commercialism within villages associated with tourist related development, resulting in a loss of vernacular character and change to settlement pattern;
- Pressure to increase the numbers of camping and caravanning sites;
- Potential for the introduction of telecommunications and mobile phone masts which could be visually intrusive, particularly if sited on higher slopes;
- Potential widening of or improvements to main road corridors with associated noise and visual intrusion.

Sensitivity to Change Issues

- Overall high visual sensitivity as a result of extensive long distance views to adjacent Landscape Character Types, strong intervisibility with surrounding landscapes and the flat open summits of the Tabular Hills;
- Views to and from this Landscape Character Types are sensitive to the introduction of tall vertical structures such as wind turbines or communications masts;
- High ecological sensitivity as a result of the numerous linear belts of ancient woodland lining the dale sides, coupled with numerous SSSI, including parts of the North York Moors, Caydale, Ryedale, Windy Pits, Duncombe, Sleightholme, Cawthorn Moor, Bridestones and Newtondale;
- These sites encompass a patchwork of ecological habitats which are sensitive to changing agricultural practices/potential new development/climate change;

- High landscape sensitivity as a result of the strong landscape and settlement pattern, with strong visual unity in settlement and distinctive cultural patterns comprising medieval villages located at spring lines.

GUIDANCE

Guidance for Managing Landscape Change

Physical and Ecological Character

- **Protect, manage** and **enhance** patches of semi-natural broadleaved ancient woodland to strengthen overall landscape character;
- **Seek** opportunities to better integrate existing conifer plantations into the landscape and improve their contribution to biodiversity;
- **Manage** coniferous plantations under continuous cover programmes, sympathetic rotation felling, retention of permanent open areas, ride widening and the clearance of conifers from around watercourses.

Cultural and Historic Character

- **Protect** the rich range of historic landscape features including designed landscapes archaeological sites (such as prehistoric remains within Wykeham Forest, round barrows and cairns) and historic buildings such as Rievaulx Abbey, castles (Helmsley, Pickering and West Ayton) and churches
- **Protect** the setting of historic designed landscapes at Duncombe Park, Eberston Park and Nunnington and also the setting of Helmsley, Pickering and West Ayton castles;
- **Protect** the nucleated settlement pattern and key historic buildings within historic settlements such as Appleton, Middleton and Sproxton;
- **Maintain** sustainable grazing intensities and scrub and bracken management on archaeological sites;
- **Encourage** heritage tourism;
- **Promote** the use of local building materials, such as pale limestone walls and red pantile roofs as appropriate for repairing traditional buildings and for new build.

Aesthetic and Perceptual Character

- **Maintain** public access to enable enjoyment of this landscape and the sense of 'escapism' and 'inspiration' it provides whilst protecting vulnerable habitats, through the network of public footpaths and open access land;
- **Protect** key views to Enclosed Vale Farmland (the Vale of Pickering) to the south, Sandstone Moors and Foothills to the north;
- **Conserve** the overall sense of tranquillity and relative remoteness;
- **Minimise** light spill at night through careful lighting design.

Signposts to Further Landscape Character Assessment Information

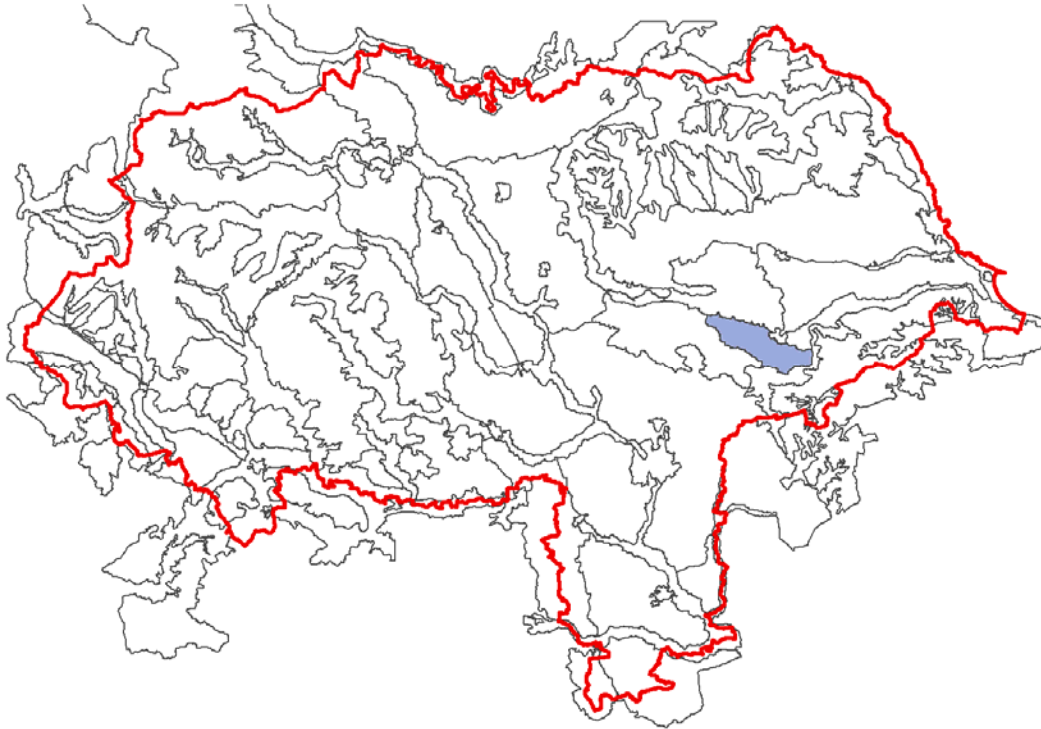
National Character Area

- NCA 25: North Yorkshire Moors and Cleveland Hills
http://www.naturalengland.org.uk/Images/jca25_tcm6-5621.pdf
- NCA 26: Vale of Pickering and NCA29: Howardian Hills
http://www.naturalengland.org.uk/Images/jca26_tcm6-5676.pdf

Local Landscape Character Assessments

- Ryedale Landscape Character Assessment (1999)
- North York Moors National Park Landscape Character Assessment (2003).
<http://www.northyorkmoors.org.uk/content.php?nID=372>
- Hambleton & Howardian Hills Landscape Character Assessment (2007)

LIMESTONE RIDGE (5)



CHARACTERISATION

Key Characteristics

- Prominent ridge which facilitates dramatic panoramic views over the Castle Howard basin;
- Several Country Houses with associated designed parkland settings;
- Pockets of semi-natural ancient woodland on steep escarpments and mature parkland trees are key landscape features;
- Historic settlement pattern with spring-line villages located at the foot of the hills;
- Strong historic character within villages, linear form with wide grass verges and widespread use of vernacular materials;
- Numerous ancient, often sunken lanes and trackways, with wide verges which are species-rich;
- Network of minor roads which closely follow topography.

Description

- 5.3.4 This Landscape Character Type encompasses a long narrow ridge of oolitic limestone, which is over 100m in height and is partly within the Howardian Hills AONB. The underlying rock strata dip to the north producing a convex slope which rises gently from the Vale Pickering and terminates abruptly in a steep south facing escarpment. The uniform gentle slope has rich, well drained soils which display a pattern of large arable fields, divided by low, often gappy hedges with relatively few hedgerow trees. The landscape affords panoramic views southwards over the Vale of Pickering. Steep escarpments are often wooded, providing a strong sense of enclosure. The woodland is almost entirely ancient in origin but the majority has been replanted. Settlement is concentrated in the prominent line of villages which lie along the edge of the Vale of Pickering at the boundary of this Landscape Character Type. Numerous ancient trackways, often sunken below the surrounding landscape, with wide verges contribute to recognisable sense of place. There is also a line of a Roman Road running west from Malton,

along which a number of 'street' villages occur. The ridge-top road in the east offers distinctive open views over the Castle Howard basin. A prominent fault-defined ridge which separates the valley of the Rye from that of Wathbeck/Holbeck is a prominent landscape feature. The River Derwent, which flows in a gorge between Huttons Ambo and Howsham, is also a key landscape feature which contributes to recognisable sense of place. The limestone quarries to the east of Hovingham are intrusive features in longer distance views into this area.

Definitive Attributes

Geology	<ul style="list-style-type: none"> • Bedrock predominantly consists of Oolitic limestone, interspersed with patches of mudstone and sandstone • Towards the centre of this Landscape Character Type, a patch of superficial deposits includes clay, silt, sand and gravel (following the course of the River Derwent)
Topography & Drainage	<ul style="list-style-type: none"> • Two east-west running low ridges, which are cut in the middle by the valley of the River Derwent • The Landscape Character Type encompasses both the top of the ridge and adjacent slopes
Land Cover	<ul style="list-style-type: none"> • Predominantly arable fields within this Landscape Character Type interspersed with pockets of improved grassland • The western half of the ridge is lined with a belt of deciduous woodland (which also contains smaller patches of coniferous woodland)
Enclosure / Field Pattern	<ul style="list-style-type: none"> • Pockets of large-scale modern enclosed fields, interspersed with large areas of medium-sized parliamentary enclosure fields • Towards the centre of the Ridge, small areas of designed landscape are associated with Swinton Grange, where there is also evidence of assarting (the process of clearing forests for agricultural land) • The large-scale, open racecourse training gallops in the east of the Type at Langton Wold is also a feature
Settlement Pattern	<ul style="list-style-type: none"> • Settlement is concentrated in the prominent line of villages which lie along the southern edge of the Vale of Pickering at the northern boundary of this Landscape Character Type • This area contains numerous ancient trackways, often with wide verges and sunken below the surrounding landscape • A network of minor lanes connects dispersed farmsteads and halls. • Malton, lying at foot of the limestone ridge, is the only major settlement within the area
Visible Historic Features	<ul style="list-style-type: none"> • Dominated by Castle Howard designed landscape • A few smaller country houses and parks • Linear dykes extending from Fryton West Wood to Slingsby Banks Wood

EVALUATION

Forces for Change

Agricultural Change and Land Management

- Lack of management or inappropriate management threatens hedgerows, however there has also been significant improvement in places over the last ten years;
- Much of this Landscape Character Type forms part of estate landscapes which are generally well managed;
- Lack of management of semi-natural habitats;
- Pressure to convert historic parkland to farmland which changes landscape character;
- Over mature parkland trees which are key landscape features and require restoration;
- Loss of limestone grassland due to scrub and bracken encroachment.

Development and Infrastructure

- Pressure for the introduction of new larger scale agricultural buildings which can have a visual impact in prominent locations;
- Introduction of modern, non-local building materials which are discordant with local vernacular;
- Potential conversion of historic farm buildings to new uses, resulting in the introduction of insensitive lighting, gates, boundary features and planting which are inconsistent with local landscape character;
- Potential infill housing development which does not respect the existing patterns of roads, greens, boundary features, gardens, building form and height and use of vernacular building materials and roofing details;
- Development of telecommunication masts, wires or other tall structures resulting in an adverse visual impact, particularly on visually sensitive skylines.

Sensitivity to Change Issues

- High visual sensitivity as a result of the prominent ridge which facilitates panoramic views across the Vale of Pickering, coupled with strong intervisibility with adjacent Landscape Character Types, which are sensitive to the introduction of tall vertical structures such as wind turbines or communications masts;
- High ecological sensitivity as a result of the patchwork of high quality limestone grassland (mainly linked to grass banks), mature parkland and woodland trees and species rich grass road verges which are sensitive to changing agricultural practices or lack of management;
- High landscape and cultural sensitivity as a result of the numerous country houses, historic buildings, historic settlement pattern, mature parkland trees and strong historic character within villages.

GUIDANCE

Guidance for Managing Landscape Change

Physical and Ecological Character

- **Manage** hedgerows to encourage them to thicken and re-plant if necessary;
- **Maintain** pastoral land uses and encourage extensive grazing to avoid compaction of soil and encourage water infiltration;
- **Seek** measures to mitigate against increased flood risk, including woodland or wetland creation adjacent to water courses and the use of farm practices such as across-contour ploughing and improved soil management to reduce surface-water runoff from farmland;
- **Protect** the dramatic landform of the ridge, using semi-natural landcover to enhance landform features;
- **Extend** and **link** woodlands, particularly on the steeper slopes;
- **Manage** woodland to enhance biodiversity and sequester carbon as well as providing a source of timber and wood fuel.

Cultural and Historic Character

- **Protect** historic landscape features such as linear dykes through maintaining sustainable grazing intensities and scrub management;
- **Protect** the rural dispersed settlement pattern of linear villages along the southern edge of the Vale of Pickering and the low density scattered settlement pattern of farmsteads elsewhere;

- **Protect** the wooded character of the ridge and escarpments by restoring and managing historic landscapes (such as Castle Howard and smaller country houses) by seeking opportunities to restore vistas and bring woodland into sound management (including management as wood pasture).

Aesthetic and Perceptual Character

- **Maintain** public access to enable enjoyment of this landscape and the sense of ‘escapism’ and ‘inspiration’ it provides whilst protecting vulnerable habitats, through the network of public footpaths and open access land;
- **Protect** key views to adjacent Landscape Character Types;
- **Conserve** the overall sense of tranquillity.

Signposts to Further Characterisation Information

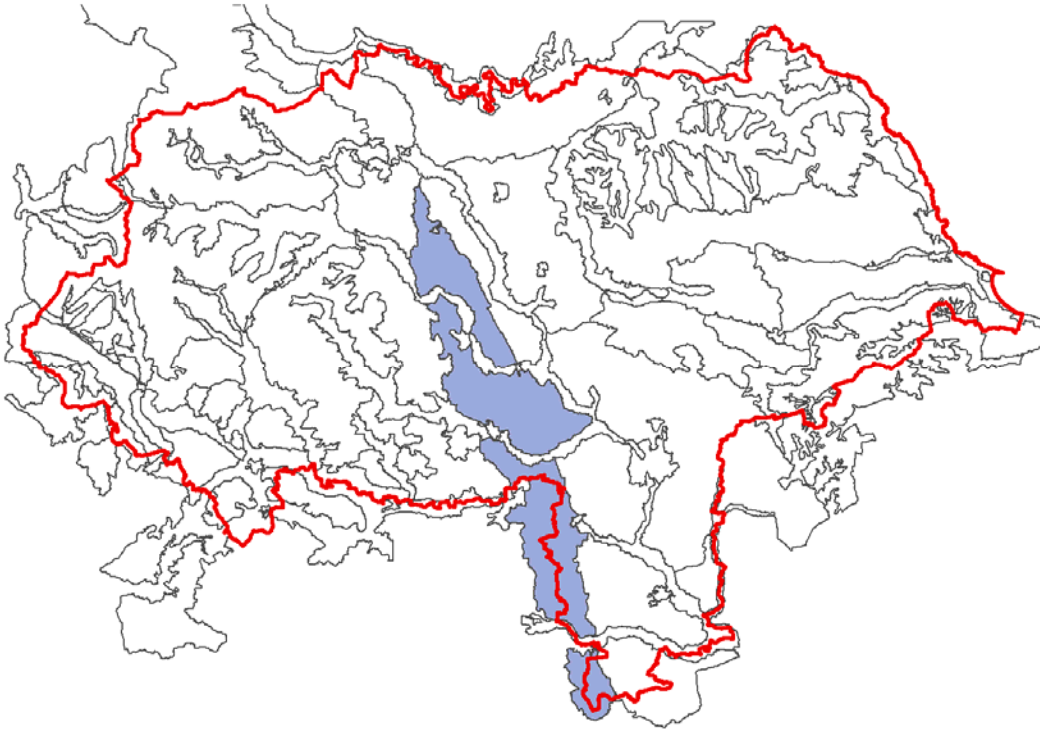
National Character Area

- NCA 29: Howardian Hills
http://www.naturalengland.org.uk/Images/jca29_tcm6-5558.pdf

Local Landscape Character Assessments

- Howardian Hills AONB Landscape Character Assessment (1995)
- Hambleton & Howardian Hills Landscape Character Assessment (2007)
<http://www.northyorkmoors.org.uk/content.php?nID=790>

MAGNESIAN LIMESTONE RIDGE (6)



CHARACTERISATION

Key Characteristics

- A low ridge of gently rolling landform which is covered by a pattern of fertile farmland and well wooded estates;
- Landform is intersected by a series of relatively intricate dry valleys;
- Wooded limestone gorges, caves and crags are key landscape features;
- The prominent transport corridor of the A1(M) which runs through the southern section of this Landscape Character Type;
- Large-scale arable fields dominate the landscape, facilitating long distance views, extending as far as Kilburn White Horse on the edge of the North York Moors National Park;
- Intimate scale and grain of the landscape derived from complex topography and land use patterns;
- Several historic country houses and associated designed landscapes, often containing mature veteran trees;
- Limestone quarries are a relatively common landscape feature;
- Use of limestone as a building material which creates a unified character.

Description

- 5.3.5 Although covered in many places by drift deposits, the limestones have a unifying effect on the landscape within this Landscape Character Type as a result of the widespread use of them as a building material. This low, gently rolling limestone ridge is covered with a patchwork of fertile, predominantly arable fields which are often delineated by a network of mature hedgerows and drystone walls. Patches of semi-natural woodland are features of the steeper slopes. Wooded estates, which often contain historic buildings, are also a key feature of this area. These estates often have an intricate character, which contrasts with the surrounding agricultural landscape. The corridor of the A1(M) runs along much of the length of the ridge.

Associated traffic reduces the overall sense of remoteness and tranquillity within this Landscape Character Type, introducing a source of noise and movement. Large limestone quarries are also key features, which provide a visual contrast with adjacent arable fields. There is a predominantly rural character overall. This Landscape Character Type contains the most significant concentration of Neolithic and Bronze Age monuments and related archaeological deposits in the North of England. These include seven henges, two cursus monuments, several barrows, enclosures, pit alignments and the Devil's Arrows Standing stone. Many of these features are scheduled as nationally important. The three henges and their setting on Thornborough Moor are unparalleled in their size, alignment and form.

Definitive Attributes

Geology	<ul style="list-style-type: none"> • Predominantly underlain by magnesian limestone bedrock which is overlain by superficial deposits of diamicton (a glacial deposit)
Topography & Drainage	<ul style="list-style-type: none"> • A gently rolling low ridge of landscape
Land Cover	<ul style="list-style-type: none"> • A predominantly arable landscape which is interspersed with scattered, diverse development
Enclosure / Field Pattern	<ul style="list-style-type: none"> • Pockets of large-scale modern enclosed fields, interspersed with large areas of medium-sized parliamentary enclosure fields • Areas of designed landscape are also a key feature, which are dotted throughout the Landscape Character Type.
Settlement Pattern	<ul style="list-style-type: none"> • A combination of large scattered farmsteads and small isolated hamlets dotted across the landscape
Visible Historic Features	<ul style="list-style-type: none"> • Humberton deserted medieval village • Snaps Castle and avenue • Devil's Arrows at Boroughbridge • Aldborough village – built within visible earthworks of the Roman Town • Knaresborough Castle • Towton battlefield • Parks and country houses at Newton Kyme, Thorpe Perrow, Womersley and Monk Fryston • Other smaller parks and country houses • Neolithic and Bronze Age monuments, including seven henges, two cursus monuments, several barrows, enclosures, pit alignments and the Devil's Arrows Standing stone. • East Tanfield deserted medieval village, grange and field system, to the east of Swainby Grove

EVALUATION

Forces for Change

Agricultural Change and Land Management

- Intensive arable farming has resulted in relatively poor, weak and fragmented patterns of hedges and walls, and in loss of hedgerow trees. This has adversely affected the structure of the landscape, which in parts has become increasingly open;
- Neglect or poor management of hedgerows, resulting in decline and eventual loss;
- Ploughing of permanent pastures resulting in a loss of species rich grassland on limestone soils;
- Potential damage to archaeological monuments/their setting and deposits as a result of agricultural activity.

Development and Infrastructure

- Potential future upgrades to the A1 road corridor resulting in localised impacts on character;
- Development of large warehouse and distribution facilities in the A1 corridor has altered the grain of the landscape. These warehouses generally do not reflect local building traditions, materials and identity.

Mineral extraction

- Increased pressure for quarrying of the limestone resource, resulting in potentially visually intrusive landscape features.
- Potential damage to archaeological monuments/their setting and deposits as a result of mineral extraction.

Sensitivity to Change Issues

- Moderate to high visual sensitivity as a result of the prominent nature of the ridge and intervisibility with adjacent Vale Farmland with Dispersed Settlements and Vale Farmland with Plantation Woodland Landscape Character Types;
- Views to and from the Magnesian Limestone Ridge are sensitive to the introduction of tall vertical elements or large-scale development;
- High ecological sensitivity as a result of the presence of nationally important, species-rich limestone grassland, several pockets of semi-natural ancient woodland scattered along the ridge, and SSSI's such as Brockdale, Hay-a-Park and Burton Leonard Lime Quarry which encompass a series of sensitive ecological habitats that are sensitive to changes in land management;
- High landscape and cultural sensitivity as a result of the nationally significant Neolithic and Bronze Age monuments, in addition to the predominantly intact landscape pattern comprising a network of mature hedgerow, pockets of deciduous woodland and several designed estates with associated historic buildings which are sensitive to changes in land management.

GUIDANCE

Guidance for Managing Landscape Change

Physical and Ecological Character

- **Bring** hedgerows at field boundaries into sound management, allowing them to thicken;
- **Re-plant** hedgerows where they reinforce historic field pattern;
- **Protect** distinctive landform features, including wooded limestone gorges, caves and crags;
- **Protect, manage** and **plan** for an increase in semi-natural habitats including woodland, grassland and wetlands and enhance arable habitats to assist biodiversity adaptation to climate change;
- **Bring** existing woodlands into positive management, extending them and increasing woodland cover within the landscape, in particular on the steeper slopes, in valleys and on degraded land;
- **Restore, extend** and **link** unimproved limestone and neutral grasslands and manage through extensive grazing to achieve a strong linked network and reduce the fragmentation of these habitats;
- **Encourage** widening of the range of habitats in arable areas and buffers around ponds, streams and rivers.

Cultural and Historic Character

- **Protect** historic landscape features such as Neolithic and Bronze Age monuments at Thornborough, which are sensitive to changes in land management, agricultural or mining activity; and their setting;
- **Protect** historic designed landscapes such as Newton Kyme, Thorpe Perrow, Womersley and Monk Fryston, retaining veteran trees in parkland on the ridge and their settings; and restore vistas.
- **Encourage** appropriate management of archaeological sites, including arable reversion to grassland and scrub management;
- **Conserve** and **restore** stone walls and stone gate posts;
- **Protect** the predominantly rural character and sense of tranquillity in places;
- **Conserve** the nucleated settlement pattern of villages and use of local limestone in buildings and walls;
- **Promote** the use of local limestone in new buildings/walls.

Aesthetic and Perceptual Character

- **Maintain** public access to enable enjoyment of this landscape and the sense of 'escapism' and 'inspiration' it provides whilst protecting vulnerable habitats, through the network of public footpaths and open access land;
- **Protect** key views to adjacent Vale Farmland with Dispersed Settlements and Vale Farmland with Plantation Woodland Landscape Character Types;
- **Conserve** the predominantly rural character and sense of tranquillity in places.

Signposts to Further Landscape Character Assessment Information

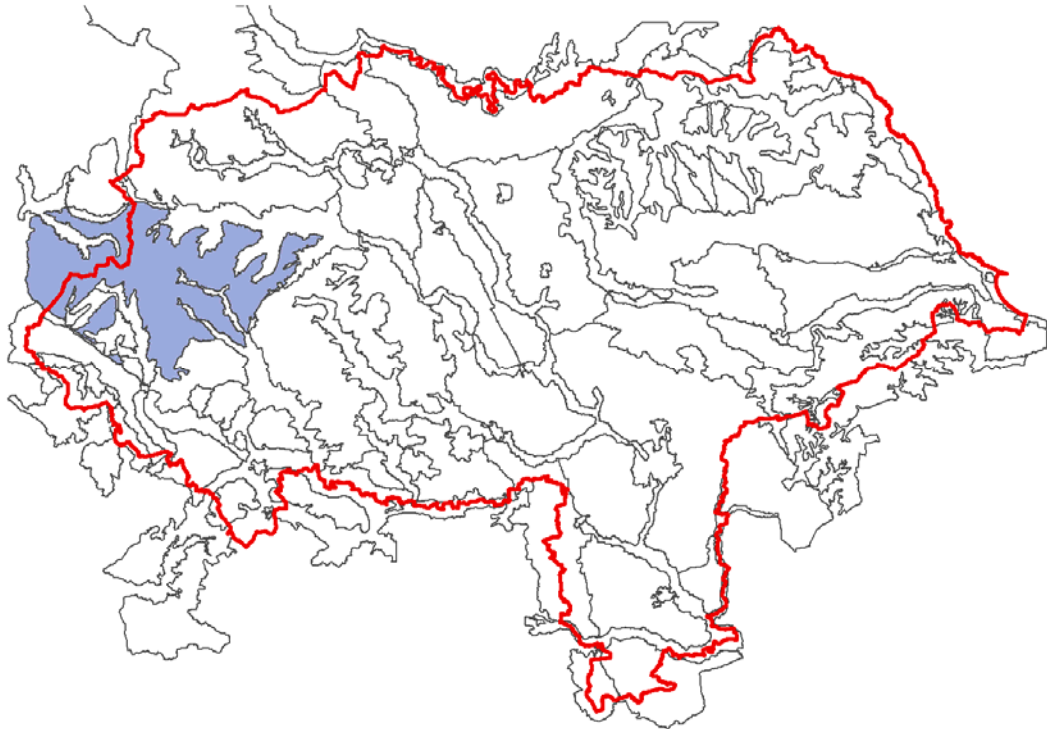
National Character Area

- NCA 30: Southern Magnesian Limestone
http://www.naturalengland.org.uk/ourwork/landscape/englands/character/areas/southern_magnesian_limestone.aspx

Local Landscape Character Assessments

- Selby Landscape Character Assessment (1999)
- Harrogate District Landscape Character Assessment 2004)

YOREDALE MOORS AND FELLS (7)



CHARACTERISATION

Key Characteristics

- Dramatic, stepped hills which are marked by sandstones and limestone crags and screes, formed by differential erosion of the Yoredale Series;
- Prominent peaks, such as Pen-y-Ghent and Ingleborough Hills that are dominant landmarks within views to the area and facilitate panoramic open views to adjacent Landscape Character Types;
- Extensive swathes of heather dominated dwarf shrub communities which dominate land cover;
- Open and undeveloped character with an absence of artificial structures or trees;
- Distinctive and ecologically important blanket bogs, pools and upland heath habitats;
- Strong sense of isolation and tranquillity and dark night skies;
- Archaeological sites preserved within the peat;
- Patchwork of muted, organic colours, which are sometimes interspersed with bright pockets of grassland and typical limestone features such as pavements, cliffs and screes;
- Drystone walls (with stones changing in accordance with local geology) line field boundaries along the lower slopes.

Description

- 5.3.6 The Yoredale Moors and Fells are located in the central and north-western parts of the Yorkshire Dales National Park, and are contiguous with the Cumbrian Fells to the northwest. This Landscape Character Type encompasses a large-scale upland landscape of high, exposed moorland, comprising a series of stepped hills formed by differential erosion of layered limestones, sandstones and gritstones (the Yoredale Series), often with pronounced flat plateau tops. There are occasional dramatic, steep-sided, upstanding plateau peaks (e.g. Pen-y-ghent and Ingleborough Hill). Views to these peaks contribute to strongly recognisable sense of place.

The limestone has given rise to classic glacio-karst landscape with cave systems, outcrops, scars, gills, gorges and pavements. There provide striking contrasts between wild, remote moors and sheltered dales that dissect the moorland. Broadleaved tree cover is confined to scattered trees clinging to cliffs and rock outcrops in gulleys or on hillsides, or occasional small woodlands. At lower elevations tree cover increases in gills and along dale heads. Extensive coniferous plantations form incongruous features towards the centre of the Yoredale Moors and Fells. Moor tops are uninhabited, but occasional upland farms are features of peripheral areas. Drystone walls extend from the dale fringes to enclose rough pasture and sometimes sub-divide wider areas of moorland. Roads and footpaths are isolated in character with frequent panoramic views of the central dales, the Three Peaks and the surrounding fells. Colours and textures change with the underlying geology, with the darker colour of sandstones and gritstones (and associated blocky texture) contrasting with the lighter grey colour and white colours of limestone (with their smoother texture). In places, extensive areas of conifer planting are dominant elements, which introduce a sense of enclosure. Human elements are present in the form of wooden pole overhead telephone and power cables, usually routed along roads, or vehicles parked on the roadside.

Definitive Attributes

Geology	<ul style="list-style-type: none"> • Predominantly underlain by the Yoredale Series which comprises alternating bands of sandstone, gritstone and limestone • The edges of this Landscape Character Type are predominantly underlain by Limestone bedrock • Towards the centre, higher locations are covered with a superficial geology of peat, which is adjacent to patches of Diamicton in lower locations
Topography & Drainage	<ul style="list-style-type: none"> • This Landscape Character Type encompasses some of the highest land within the Study Area, reaching 723m on Ingleborough peak
Land Cover	<ul style="list-style-type: none"> • Predominantly neutral and calcareous grassland • Parts of the higher ground support bog and acid grassland, interspersed with patches of Dwarf Shrub Heath and Open Dwarf Shrub Heath • Patches of coniferous woodland are also a feature in places
Enclosure / Field Pattern	<ul style="list-style-type: none"> • Relatively large tracts of open grouse moorland scattered across the Yoredale Moors and Fells interspersed with large-scale parliamentary enclosure fields, small-scale pockets of pasture and intake
Settlement Pattern	<ul style="list-style-type: none"> • A general absence of settlement, other than occasional upland farms on the periphery
Visible Historic Features	<ul style="list-style-type: none"> • Large, univallate ritual complex on Ingleborough Hill • Nucleated coal mine and coke oven on Fountains Fell • Enclosures on Greenber Edge • New Providence Lead Mine and Ore Works to the northwest of Kettlewell • Occasional roadside limekilns, small quarries and mineral working (e.g. shallow shaft coal pits)

EVALUATION

Forces for Change

Agricultural Change and Land Management

- Changes in grazing practices, including housing herds closer to farmsteads, resulting in disrepair or loss of drystone walls and barns;
- Removal of limestone pavement for rockery stone;
- Lack of grazing can lead to the spread of tussocky vegetation and scrub, resulting in damage to characteristic communities of plants and animals;

- Heavy grazing which leads to an increase in the cover of grazing tolerant plants, such as purple moor-grass, and a consequent reduction in the extent of important moss and lichen species;
- Changes from rough pasture/hay meadows to improved meadow and pasture (silage production, rather than hay) particularly within lower dale slopes;
- Introduction of unsympathetic new farm buildings to meet modern farming needs or inappropriate conversion or dereliction of redundant buildings;
- Burning of blanket bog can also damage the top layer of peat and prevent the formation of new peat;
- Unintentional moorland fires, which can cause widespread damage;
- Heavy grazing can lead to the loss of dwarf shrub cover and a consequent shift to grass and rush communities;
- Cutting is a possible alternative to burning. Machinery used for cutting can damage fragile peat soils and archaeological features and cuttings can inhibit regeneration if they are not removed;
- Sheltering of stock within upland woodlands, together with grazing by rabbits and roe deer is preventing regeneration in some woods. Light grazing can be beneficial in places to maintain the ground flora or a mosaic of open ground, scrub and woodland.
- Areas of eroded peat require active intervention to restore vegetation and ecosystem services such as water and carbon storage.

Development and Infrastructure

- Decline of relic features of the mining and quarrying industry which are an important part of the character and cultural heritage;
- Communications masts can be prominent and intrusive features on elevated ridges;
- Public access brings pressures to moorlands including footpath and summit erosion, disturbance of birds and increased risk of moorland fires;
- Erection of post and wire fences on moorland introduces boundary features into an open landscape and reduces the sense of wilderness
- The introduction of estate and shooting tracks can be at odds with current landscape patterns and colours, resulting in changes in existing landscape character.

Climate Change

- The ecosystem services which upland areas provide including mitigating flood risk, providing water, sequestering carbon, and providing habitat and recreation need to be retained in the face of potential future climatic changes;
- Without management there is likely to be increasing invasion of upland bogs and heaths by trees and scrub. This would dramatically alter the character of the landscape and impinge on priority habitats which support rare bird species;
- Increasing incidence of intense rainfall events may result in increased soil erosion and lead to flash floods. Expansion of Gill Woodland and blocking of grips could help to mitigate against flooding;
- Increased temperatures and drier summers may result in a declining water table and the release of carbon from peat soils to the atmosphere. Research commissioned by the moors for the future programme has shown that management and restoration of moorlands can reverse this effect, at least in the short term;
- Pressure for land and food, together with a warmer climate and longer growing season may lead to parts of upland areas being used to produce food or energy;
- In the long term it is thought that the climatic conditions will become unsuitable for the continued formation of Peat in moorland areas. There is, therefore, a need to conserve peat;
- The requirement for alternative sources of renewable energy may result in the introduction of wind turbines or other forms of renewable technology, which could potentially impact on existing landscape character.

Sensitivity to Change Issues

- High visual sensitivity as a result of the predominantly open and undeveloped character, coupled with strong intervisibility with adjacent Landscape Character Types, which are sensitive to the introduction of tall vertical structures such as wind turbines or communication masts and invasion by woodland, trees and scrub;
- High ecological sensitivity as a result of the patchwork of blanket bogs, pools and upland heath habitats, limestone scars, gills, gorges and pavements, which provide key habitats for upland breeding birds, dwarf shrub and numerous other plant species. A large proportion of the Yoredale Moors and Fells are designated as the Mallerstang-Swaledale Head, Arkengarthdale, Gunnerside and Reeth Moors; and Lovely Seat-Stainton Moor SAC, SPA and SSSI;
- These ecological habitats are sensitive to erosion, inappropriate management, unintended fires, climate change, disturbance from walkers and dogs; and invasion by trees, scrub and bracken;
- High landscape sensitivity as a result of the predominantly intact landscape pattern of drystone walls, muted colours, strong sense of tranquillity and remoteness; and dark night skies.

GUIDANCE

Guidance for Managing Landscape Change

Physical and Ecological Character

- **Protect** and **positively** manage large, open and expansive areas of moorland comprising blanket bogs, pools and upland heath habitats, limestone scars, gills, gorges and pavements for biodiversity, sense of place and resilience to climate change;
- **Seek** opportunities to restore, extend and re-link moorland habitats to achieve a strong habitat network;
- **Seek** opportunities to block moorland grips to benefit soil and water management and habitat restoration;
- Where possible, **restore** acidic grasslands to dwarf-shrub heath communities and implement sustainable grazing regimes and burning programmes to promote structural and biological diversity;
- **Manage** livestock densities to avoid poaching of soils and aid water infiltration, limiting surface runoff;
- **Improve** and **maintain** blanket bog in good condition in order to preserve the high soil carbon content and protect underlying archaeological and palaeoenvironmental deposits;
- **Protect** important geological exposures, including limestone scars, gills, gorges and pavements, using semi-natural landcover to enhance landform features;
- **Protect** limestone pavements from damage or removal.

Cultural and Historic Character

- **Maintain** the visibility of upstanding archaeological remains and ground features;
- **Encourage** the use of local building materials for the repair and restoration of stone walls and buildings (which relate to the Yoredale Series);
- **Protect** historic landscape features such as remnant mines, quarries and roadside limekilns;
- **Restore**, and provide interpretation of, extractive and industrial sites such as quarries and limekilns;
- **Maintain** sustainable grazing intensities and low levels of scrub to ensure the integrity and visibility of archaeological sites.

Aesthetic and Perceptual Character

- **Maintain** public access to enable enjoyment of this landscape and the sense of 'escapism' and 'inspiration' it provides whilst protecting vulnerable habitats, through the network of public footpaths and open access land;
- **Protect** key views to adjacent Farmed Dales;
- **Conserve** the predominantly rural character, overall sense of tranquillity and remoteness; and dark night skies.

Signposts to Further Landscape Character Assessment Information

National Character Area

- NCA 21: Yorkshire Dales

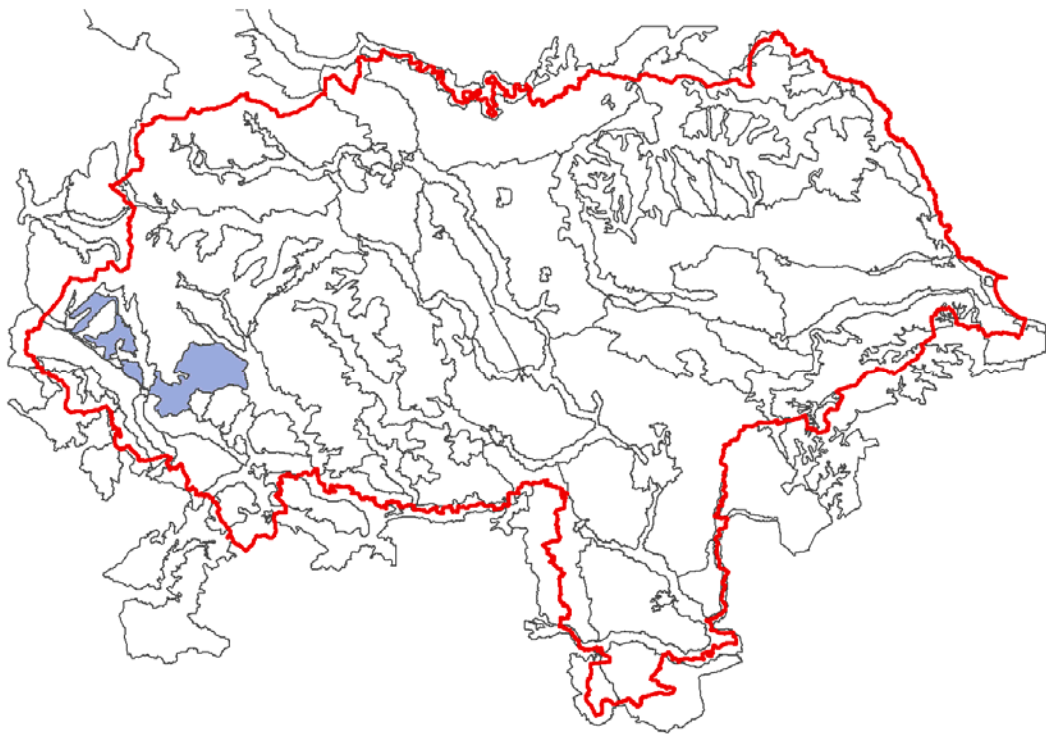
Local Landscape Character Assessments

- Yorkshire Dales National Park Landscape Character Assessment (2001)
http://www.yorkshiredales.org.uk/index/learning/landscape_character.htm

Adjacent Landscape Character Assessments

- Lancashire Landscape Character Assessment (1999)
<http://www.lancashire.gov.uk/environment/landscape/landscapecharacass/contents.asp>

LIMESTONE MOORS/SCAR (8)



CHARACTERISATION

Key Characteristics

- Distinctive pattern of limestone scar and pavements;
- Panoramic views across the southern Farmed Dales;
- Views are often dominated by the three peaks of Ingleborough, Whernside and Pen-y-ghent, which contribute to strongly recognisable sense of place;
- Occasional tarns; and springs at the base of the Moors;
- Extensive cave system containing archaeological cave sediments and geological stalactite and stalagmite formations;
- Generally undeveloped character with an absence of artificial structures;
- Diverse plant assemblages including rare species;
- Exposed limestone features including cliffs, screes, gorges, pavements and scattered boulders, resulting in a rugged texture;
- Bird nesting sites on isolated cliff ledges;
- Strong sense of remoteness and tranquillity and associated dark night skies.

Description

- 5.3.7 These areas of exposed Great Scar Limestone and limestone moorland are located in the south-western part of the Yorkshire Dales National Park. Exposed rock is the principle characteristic of this Landscape Character Type, with extensive limestone cliffs ('scars'), screes, pavements and scattered boulders prominent features. This results in a rugged character and a textured landscape. These features combine with shallow soil cover, shakeholes, potholes and caves to form classic karst landscape. Closely grazed, springy, flower-rich grasslands typically form a neat, continuous, bright green carpet between exposed rock features. The scars range primarily through elevations between 240-450m AOD, and rise up to 531m AOD in the Malham/Arncliffe area. Panoramic views can be gained across the southern dales and towards the landforms of the Three Peaks: Ingleborough, Whernside and Pen-y-ghent. A few isolated

plantations occur on the moor tops east of Austwick and around Malham Tarn and several large, semi-natural woodlands occur on some side slopes, over-looking Ribblesdale and Littondale. Scattered trees are also a feature of scree slopes and cliffs, with occasional windblown trees or shrubs found on cliffs or on pavements at higher levels. Malham Tarn is the only waterbody on the moor top, but a small number of streams and waterfalls descend the side slopes. There are no settlements within this Landscape Character Type, and modern built features (e.g. fences and occasional buildings) are scarce, generally concentrated around Malham Tarn. Minor tracks provide access to the Malham Tarn area. An extensive network of historic routes and modern footpaths/tourist routes crosses the area. Drystone walls are frequent, forming strongly rectilinear patterns that take little or no account of natural features. Occasional quarries are located on the sides of the moors but are not visually prominent.

Definitive Attributes

Geology	<ul style="list-style-type: none"> Underlain by limestone bedrock, with superficial deposits of Diamicton and Peat
Topography & Drainage	<ul style="list-style-type: none"> High, elevated moorland landscape, ranging from 240 metres AOD to 530 metres AOD
Land Cover	<ul style="list-style-type: none"> Predominantly neutral and calcareous grassland Pockets of acid grassland and bracken
Enclosure / Field Pattern	<ul style="list-style-type: none"> Relatively large areas of parliamentary enclosure, interspersed with large regular enclosure fields which are defined externally by regular stone walls Areas of post medieval piecemeal enclosure, large-scale private enclosure and planned enclosure
Settlement Pattern	<ul style="list-style-type: none"> A pattern of scattered, isolated farmsteads
Visible Historic Features	<ul style="list-style-type: none"> Remnant mines and quarries Cairns

EVALUATION

Forces for Change

Agricultural Change and Land Management

- Scree, scars and pavement have been used for hardcore or stone in the past, resulting in disturbance of geological interest and the species it supports;
- Karst areas are vulnerable to broad changes in the management of catchments. Modification of water courses, abstraction, drainage and fertiliser use can all damage Karst landscapes. Other features such as depressions and hollows have sometimes been infilled with spoil or agricultural rubbish. This damages the geological importance of areas and can lead to pollution of underground water;
- Without management limestone grasslands may rapidly become dominated by ranker grasses, lowering the species diversity of the site, which may eventually become dominated by scrub.

Development and Infrastructure

- Public access, resulting in the erosion of fragile soils, and disturbance to wildlife;
- Erection of post and wire fences which has introduced boundary features into an open landscape,

Climate Change

- Climate change may impact on the species within semi-natural habitats. The habitat ranges of many species are likely to move northwards or uphill and this will have implications for the species composition of nature reserves. A network of interlinked habitats would allow

species to migrate in response to climate change and would reverse fragmentation of semi-natural habitats.

Sensitivity to Change Issues

- High visual sensitivity as a result of the elevated landform which facilitates panoramic views across adjacent Landscape Character Types, which is sensitive to the potential introduction of tall structures or large-scale developments;
- High ecological sensitivity as a result of the patchwork of diverse plant assemblages including neutral and calcareous grassland, limestone scar and pavements. Many of these habitats are designated for their nature conservation value, including North Pennine Moors SAC, Craven Limestone Complex SAC, Langcliffe Scars and Jubilee, Albert and Victoria Caves SSSI, Pikedaw Calamine Caverns SSSI; and Giggleswick Scar and Kinsey Cave SSSI. There are also several patches of ancient woodland;
- These habitats are sensitive to overgrazing, changes to water supply, mineral extraction and climate change;
- High landscape sensitivity as a result of the predominantly intact landscape pattern and overall sense of tranquillity and remoteness;
- Highly sensitive geological formations which are vulnerable to mineral extraction.

GUIDANCE

Guidance for Managing Landscape Change

Physical and Ecological Character

- **Protect** and **positively** manage large, open and expansive areas of limestone moorland comprising cliffs, screes, gorges, pavements and scattered boulders, for biodiversity, sense of place and resilience to climate change;
- **Protect** species-rich limestone grassland, encouraging sustainable grazing regimes;
- **Seek** opportunities to block moorland grips to benefit soil and water management and habitat restoration;
- **Manage** livestock densities to avoid poaching of soils and aid water infiltration, limiting surface runoff;
- **Protect** important geological exposures, including limestone scars, gills, gorges and pavements, using semi-natural landcover to enhance landform features;
- **Protect** limestone pavements from damage or removal.

Cultural and Historic Character

- **Maintain** the visibility of upstanding archaeological remains and ground features;
- **Encourage** the use of local building materials for the repair and restoration of stone walls and buildings (which relate to the Yoredale Series);
- **Protect** historic landscape features such as remnant mines, quarries and cairns;
- **Restore**, and provide interpretation of, extractive and industrial sites such as quarries and limekilns;
- **Maintain** sustainable grazing intensities and low levels of scrub to ensure the integrity and visibility of archaeological sites.

Aesthetic and Perceptual Character

- **Maintain** public access to enable enjoyment of this landscape and the sense of 'escapism' and 'inspiration' it provides whilst protecting vulnerable habitats, through the network of public footpaths and open access land;

- **Protect** key views to adjacent Landscape Character Types, including Yoredale Moors and Fells, Farmed Dales and Drumlin Valleys;
- **Conserve** the scattered, isolated settlement pattern, overall sense of tranquillity and remoteness; and dark night skies.

Signposts to Further Landscape Character Assessment Information

National Character Area

- NCA 21: Yorkshire Dales
http://www.yorkshiredales.org.uk/index/learning/landscape_character.htm

Local Landscape Character Assessments

- Yorkshire Dales National Park Landscape Character Assessment (2001)
http://www.yorkshiredales.org.uk/index/learning/landscape_character.htm

Adjacent Landscape Character Assessments

- Lancashire Landscape Character Assessment (1999)
<http://www.lancashire.gov.uk/environment/landscape/landscapecharacass/contents.asp>
- Landscape Design Associates (LDA) for Craven Borough Council (2002)
 Craven District Outside the Yorkshire Dales National Park;
- Forest of Bowland AONB Landscape Character Assessment (2009)
http://www.forestofbowland.com/files/uploads/pdfs/strategies/Landscape%20Character_introduction_29-09-09.pdf

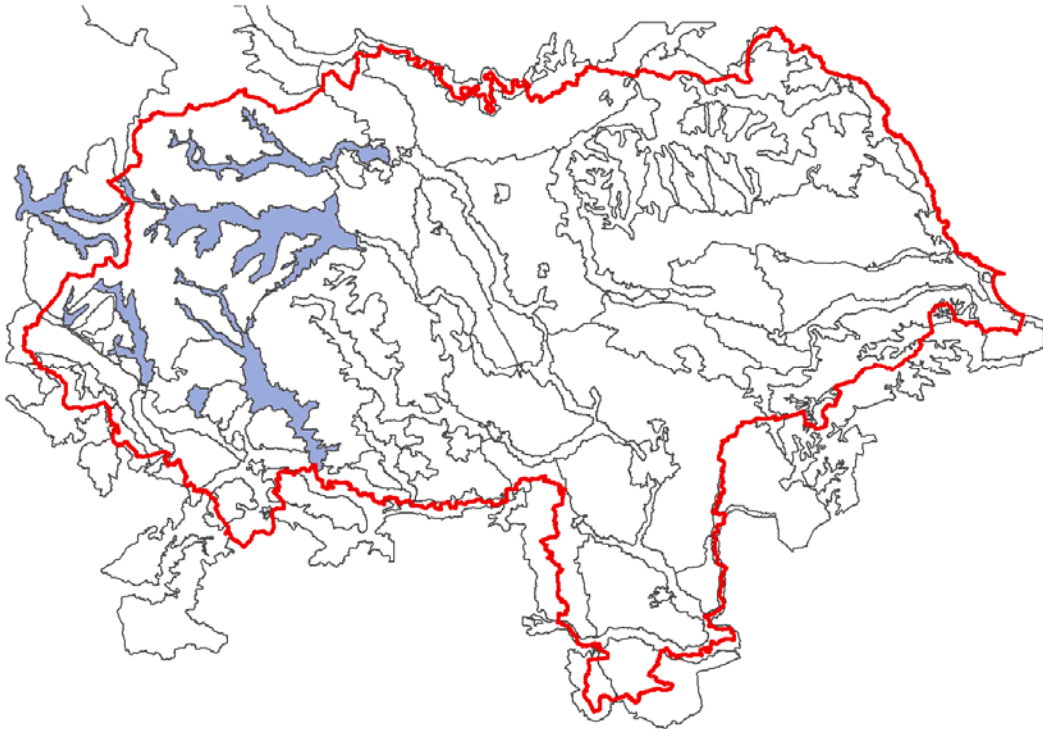
5.4 Upland Fringe and Valley Landscapes

5.4.1 The Upland Fringe and Valley Landscapes occur in two broad locations within the Study Area. In the east, they are partly situated within the North York Moors National Park and Howardian Hills AONB, whilst in the west, they constitute the farmed dales of the Yorkshire Dales National Park. There is another occurrence of these types of landscape just outside the southwestern edge of Study Area, to the northwest of Clitheroe.

5.4.2 The following Landscape Character Types form the Upland Fringe and Valley Landscapes Primary Landscape Unit:

- Farmed Dale (9)
- Narrow Upland Dale (10)
- Broad Valleys (11)
- Wooded Hills and Valleys (12)
- Moors Fringe (13)
- Rolling Upland Farmland (14)

FARMED DALE (9)



CHARACTERISATION

Key Characteristics

- Series of intimate dales or valleys, each of which have distinctive recognisable sense of a place and identity, based on their underlying geology, shape and cultural uses;
- Strong relationship between landscape and underlying geology;
- Predominantly pastoral character throughout the dales, with distinctive and recognisable field patterns and boundaries;
- Dales either comprise, open and exposed, broad, u shaped valleys, surrounded by moors and fells at higher elevations, or intimate, narrow v-shaped valleys;
- A diverse pattern of land-cover, including calcareous grassland, pasture, species rich upland hay meadows, limestone pavements and pockets of broadleaf and coniferous woodland;
- In several of the dales, dry stone walls (constructed out of local stone) are key features, whilst in others, hedgerows and trees predominate at field boundaries;
- Traditional stone field barns are key features within several of the dales, particularly Swaledale, Wensleydale and Upper Wharfedale;
- Rich heritage of human activity including agriculture, quarrying, mining, textiles and water supply;
- Network of minor roads connecting villages, hamlets;
- Predominantly rural landscape, with an associated strong sense of tranquillity. In some of the smaller, more remote dales, there is a strong sense of isolation, whilst in others, human activity is more apparent;
- Strong sense of unity within settlements and harmony with the landscape as a result of the use of locally sourced building materials and distinctive vernacular building designs;
- Strong sense of tranquillity and remoteness within most of the dales, with associated dark night skies;
- Species-rich meadows and pastures, mosaics of rushy and managed pastures on hill sides;
- Strong intervisibility with adjacent Moors and Fells Landscape Character Types.

Description

- 5.4.3 This Landscape Character Type is situated in the west of the Study Area and falls predominantly within the Yorkshire Dales National Park. It extends from Arkengarthdale in the north to Wharfedale in the south and also includes Swaledale, Kingsdale, Ribblesdale, Dentdale, Garsdale, Widdale, Sleddale, Raydale, and Wensleydale. There is variation in the physical shape of the dales, forming a combination of broad, open, relatively shallow sided u-shaped dales (such as Sleedale, Wharfedale, Littondale, Chapel-le-Dale, Swaledale, Arkengarthdale, Dentdale and Deepdale, Garsdal, Ribblesdale, Coverdale and Wensleydale) and narrower, v-shaped dales (such as Crummackdale, Wallendale, Bishopdale, Malhamdale and Langstroth dale. The wilder, upper reaches of most of the dales contain fast-flowing rivers which are lined with grassy, unvegetated banks. The dale/valley floors and lower valley sides are predominantly sheep grazed, supporting rough or improved pasture. There is evidence of a strong wall pattern containing medium sized, irregularly shaped fields, with large, regularly shaped fields of more recent enclosure higher up the valley sides.
- 5.4.4 Settlement pattern is dispersed and comprises scattered farmsteads and nucleated villages, which are often located along the valley floor. A strong field pattern defined by drystone walls in the upper reaches of the dales which is less apparent in the lower reaches of the dales due to rolling landform and extensive vegetation cover is a key feature. Although drystone walls are the predominant boundary feature in many of the dales, hedgerows and hedgerow trees are key features of others, such as Dentdale. Views to the three peaks of Ingleborough, Whernside and Pen-y-ghent within the adjacent Yoredale Moors and Fells Landscape Character Type contribute to recognisable sense of place. Field barns are also key features, particularly within Swaledale, Wensleydale and Upper Wharfedale. In some locations, limestone scars are visually interesting focal points, for example in Wensleydale. Far reaching views in places of bare, open hilltops and moors and fells are characteristic and stone bridges crossing the river corridors are landscape features. There is unity in building materials throughout much of this Landscape Character Type. Locally sourced roofing slates are common. Ingleton slates and dark grey Horton-in-Ribblesdale flags are used for roofs and floors. Pale grey carboniferous limestone has been used to form poorly coursed rubble walls. Sandstones were also available and were used in Swaledale. Roofing flags of hard sandstones are a common vernacular building material. Farms and outbuildings developed under one roof form characteristic longhouses which are a feature of the area. Rows of stone cottages are also distinctive features. Overall sense of remoteness and tranquillity is strong throughout most of this Landscape Character Type; however, this varies locally with the degree of settlement within the dale.

Definitive Attributes

Geology	<ul style="list-style-type: none"> This Landscape Character Type cuts through surrounding Yoredale Moors and Fells; and Great Scar Limestone; Superficial geology comprises a combination of clay, silt, sand, gravel and diamicton (a glacial deposit)
Topography & Drainage	<ul style="list-style-type: none"> A series of u-shaped and v-shaped valleys; The valleys encompass a series of meandering river channels which are narrower at their source in the uplands, becoming broader at lower elevations Valley sides are smooth and graded in some locations, whilst in others, steps or terraces are features of the valley landscape
Land Cover	<ul style="list-style-type: none"> Predominantly improved grassland along the valley floor, with small patches of broadleaved and coniferous woodland scattered along the valleys Neutral and calcareous grassland on the lower valley sides, with pockets of acid grassland on higher slopes Hay meadows Limestone pavements
Enclosure /	<ul style="list-style-type: none"> Field pattern tends to be linear, following the course of the river

Field Pattern	<ul style="list-style-type: none"> • Enclosure pattern encompasses a patchwork of planned, large-scale enclosure, parliamentary enclosure, piecemeal enclosure and large-scale enclosure, with patches of intake on the higher valley slopes and lowland meadows within the floodplain
Settlement Pattern	<ul style="list-style-type: none"> • Small-scale, clustered, nucleated settlements are common in the lower dales. Many settlements within the dales held markets and this prevented any one of them becoming a large population centre • Dispersed settlement pattern of farmsteads on valley sides • Scattered hamlets and isolated farms within the upper dales. Where hamlets occur they are frequently spaced along the road corridors • Large concentrations of field barns within the upper reaches of certain dales are distinctive landscape features • By the end of the 17th century, the majority of houses and farms were built using the local gritstone and limestone • The main settlements of the Craven Dales – Chapel-le-Dale, Ingleton, Horton in Ribblesdale and Settle are situated in the southwest of this Landscape Character Type
Visible Historic Features	<ul style="list-style-type: none"> • Stone circles and tumuli, such as at Oxclose Pasture near Carperby and at Castle Tykes near Aysgarth (Wensleydale) • Round Hill Motte at Carlton and Coverham Abbey • Forbidden folly near Coverham • Bolton and Ellerton Priors • Barden Tower Medieval fortified house • Medieval settlements and lynchets, such as those surrounding Malham village • Disused quarries, leadmines, ore works and limeworks • Deserted medieval villages • Univallate hillforts • Easby Abbey

EVALUATION

Forces for Change

Agricultural Change and Land Management

- Introduction of new visually intrusive large agricultural sheds (existing examples include those at Whiterow Farm within Waldendale and at High Birkwith);
- Inappropriate conversion of existing redundant or derelict farm buildings in a style which is inconsistent with the local vernacular;
- Disrepair/loss of drystone walls and field barns due to changes from intensive to extensive grazing practice;
- Decline in hay production resulting in a change from rough pasture/hay meadows to improved meadow and pasture, particularly on the lower dale slopes;
- Potential introduction of short rotation coppice or miscanthus.

Development and Infrastructure

- Introduction of further, potentially visually intrusive camping and caravan sites (such as those at Newbiggin, Little Stainforth, and Swaleview);
- Potential widening of or improvements to main road corridors, such as the A684 and B6457 with associated noise and visual intrusion;
- Introduction of new overhead electricity lines or telecommunications masts which have the potential to be visually intrusive, particularly if situated on higher valley slopes;
- Increased pressure for tourist related developments, such as holiday cottages, potentially affecting the character and quality of the landscape;
- Poorly designed estate shooting tracks;

- Engineered upland footpath and bridleway routes are a feature of the central dales, but have been aligned and built with sensitivity to the landscape.

Mineral Extraction

- Continued noise and visual intrusion of heavy lorries associated with large-scale quarrying for Great Scar limestone at Horton in Ribblesdale, Ribbleshead and Giggleswick;

Sensitivity to Change Issues

- High visual sensitivity as a result of strong intervisibility with adjacent Moors and Fells Landscape Character Types and key views to the three peaks of Ingleborough, Wharfedale and Pen-y-ghent;
- High ecological sensitivity as a result of the patchwork of species-rich meadows and pastures, mosaics of rushy and managed pastures on hill sides and swathes of calcareous grassland on limestone, many of which are of national importance for their landscape and biodiversity value;
- High landscape and cultural sensitivity as a result of the diverse patterns of dales, each with their own strongly recognisable landscape pattern and sense of place, coupled with strong historic integrity, numerous historic features (including drystone walls, field barns, hedgerows and prehistoric monuments) and overall sense tranquillity within this predominantly rural landscape.

GUIDANCE

Guidance for Managing Landscape Change

Physical and Ecological Character

- **Protect** important geological exposures where they exist (for example limestone pavements) and use semi-natural land cover to enhance landform features;
- **Avoid** disruption to the topography of these features and protect from damage or removal;
- **Protect and enhance** the pastoral character of the dales and distinctive field patterns and boundaries;
- **Maintain** the mosaic of pastoral land uses within the dales, aiming for extensive grazing;
- **Control** the use of fertilisers to retain biological diversity and protect water quality;
- **Protect** unimproved and species-rich meadows and pastures, mosaics of rushy and managed pastures on hill sides, many of which are of national importance for their landscape and biodiversity value and improve their resilience to climate change;
- **Maintain, restore and extend** calcareous grassland communities on limestone;
- **Maintain and restore** strong patterns of drystone walls, managing and re-planting if necessary, hedgerows in dales where they are characteristic (for example, Dentdale);
- **Improve** the management of existing broadleaved woodlands and extend and link semi-natural woodlands, particularly on steeper slopes and in valleys;
- **Ensure** that short rotation coppice or miscanthus is grown for energy on a small scale and does not displace important grasslands or obscure historic field patterns or ground features;
- **Create** less intensively managed floodplains and restore and re-link fens, mires and carr woodlands;
- **Plan** for an increase in woodland, mostly within gills and valleys, for the benefit of biodiversity as well as enhancing sense of place;
- **Encourage** new riparian and floodplain woodland in river valleys to increase the natural storage of water and carbon, stabilise banks and reduce flooding downstream;
- **Restore, extend and link** existing fragmented areas of broadleaved woodland, ensuring that they are brought under sound management.

Cultural and Historic Character

- **Maintain** the visibility of upstanding archaeological remains and ground features;
- **Encourage** the use of local building materials for the repair and restoration of stone walls and buildings (including Millstone Grit and Great Scar Limestone);
- **Conserve** historic farms and small field barns that are distinctive feature, especially within Swaledale, Wensleydale and Upper Wharfedale;
- **Protect** the rural, dispersed settlement pattern and the local built vernacular by maintaining the nucleated character of villages in most of the dales, often on bridging points and on key transport routes;
- **Conserve** the generally dispersed settlement pattern of farmsteads on valley sides;
- **Protect** historic landscape features such as remnant quarries, leadmines, ore works, lime works, prehistoric monuments, Priors, historic houses and parklands;
- **Protect** the settings of Coverham Abbey, Easby Abbey and Bolton and Ellerton Priors;
- **Maintain** sustainable grazing intensities and low levels of scrub to ensure the integrity and visibility of archaeological sites.

Aesthetic and Perceptual Character

- **Maintain** public access to enable enjoyment of this landscape and the sense of 'escapism' and 'inspiration' it provides whilst protecting vulnerable habitats, through the network of public footpaths and open access land;
- **Promote** new links to the Coast to Coast path, Dales Way, Ribble Way, Nidderdale Way, Pennine Way and Pennine Bridleway;
- **Protect** key views to adjacent Landscape Character Types, including Yoredale Moors and Fells, Gritstone High Moors and Fells and Gritstone High Plateau;
- **Conserve** the overall sense of tranquillity and remoteness; and dark night skies.

Signposts to Further Landscape Character Assessment Information

National Character Area

- NCA 21: Yorkshire Dales
http://www.naturalengland.org.uk/Images/jca21_tcm6-5179.pdf

Local Landscape Character Assessments

- Yorkshire Dales National Park Landscape Character Assessment (2001)
http://www.yorkshiredales.org.uk/index/learning/landscape_character.htm

Narrow Upland Dale (10)



CHARACTERISATION

Key Characteristics

- Distinctive cultural landscape with the remains of abbeys and granges, and a legacy of sheep grazing, monastic routeways and medieval settlements;
- Sparsely settled and inaccessible valleys with a strong sense of remoteness and tranquillity;
- Visual unity within settlements and sense of harmony with the surrounding landscape resulting from the use of local building materials;
- Predominantly pastoral landscape;
- Industrial legacy from the mining of iron ore within the Dales, particularly in Rosedale;
- Strong pattern of stone walls and hedgerows;
- Native broadleaf woodland associated with becks;
- Relatively large areas of coniferous plantation.

Description

The Narrow Upland Dales Landscape Character Type is located in north-eastern part of the Study Area, on the periphery of the North York Moors (within the North Yorks Moors National Park). Deeply incised into the open moorland, the dales radiate out from the central plateau of open moorland. They are drained by shallow rivers or becks, which are seldom visible in the wider landscape but are generally, marked by lines of native broadleaved trees. The Cleveland Dome geological feature runs east-west across the moors to Robin Hood's Bay. The streams cut down into the underlying lower Jurassic clays, resulting in broader middle valleys, which then narrow again at the foot of the Tabular Hills. Trees also often follow the line of gills down the valley side. Natural woodland cover is generally sparse. Valley bottoms and mid to lower valley sides are mostly covered by a patchwork of pasture for sheep and cattle, or occasional arable crops. Small to medium sized fields are divided by a mixture of stone walls, closely trimmed or mature hedges and occasional fences. Field trees tend to be concentrated in the lower lying areas close to the rivers, reinforcing valley bottom tree cover. On the upper

slopes field boundary trees are infrequent. Valley bottom trees are typically broadleaved. Frequent coniferous plantations are typically concentrated on upper slopes of valley sides or in the dale head areas, many with regular shaped edges, contributing a sense of regularity to the landscape. Bracken and upland heath vegetation spills over the upper valley sides from surrounding moorland, particularly towards the dale heads, providing colourful visual contrast within the landscape.

Definitive Attributes

Geology	<ul style="list-style-type: none"> • Distinctive radiating bands of bedrock geology comprising mudstone (towards the centre of the dales), sandstone; mudstone, sandstone and ironstone and sandstone, siltstone and mudstone • Superficial geology is only present along the narrow river corridors, comprising clay, silt, sand and gravel
Topography & Drainage	<ul style="list-style-type: none"> • A series of relatively narrow, steeply sloping valleys which flow north and south from the higher moors (at 400m AOD) towards the valley bottoms (between 20m and 30m AOD) • Valleys contain narrow stream or beck corridors, which feed larger river valley systems to the north (Esk Valley) and south (Vale of Pickering)
Land Cover	<ul style="list-style-type: none"> • A patchwork of Dwarf Shrub Heath, Open Dwarf Shrub Heath, acid, neutral and calcareous grassland on the higher dale slopes • Predominantly improved grassland on the lower dale slopes • Pockets of coniferous woodland punctuate the steeper, higher slopes, whilst small areas of deciduous woodland are scattered throughout the lower dales
Enclosure / Field Pattern	<ul style="list-style-type: none"> • Piecemeal enclosure of small fields in an irregular pattern towards the centre of the dales and on the lower and middle slopes • Patches of large-scale open moorland on the higher dale slopes
Settlement Pattern	<ul style="list-style-type: none"> • Clusters of solid sandstone farm buildings with red pantile roofs are generally situated on the mid dale side. Small groups of deciduous trees are associated with the farmsteads in places • There are a limited number of small, nucleated hamlets often situated on the dale floor or at river crossing points • Many of the dales have a remote and inaccessible quality, particularly towards the head of the dale • Their tends to be a strong historic integrity to the character of buildings and settlements
Visible Historic Features	<ul style="list-style-type: none"> • Rosedale Abbey • Cairnfields, cross dykes, funerary monuments and associated features at Danby Rigg • Cross dyke, cairnfield, round cairn and prehistoric hut circles at Horn Ridge • Hollings mine and Bank Top iron calcining kilns • Iron mines at Rosedale East

EVALUATION

Forces for Change

Agricultural Change and Land Management

- Decline of hedgerow trees and copses due to neglect, changes in management and absence of new planting;
- Decline in rough pasture, species rich and wet grassland in favour of improved pasture;
- Disrepair and loss of dry stone walls, neglect of hedges and replacement of walls and hedges with fencing;
- Potential for marginal farmland to revert to an unmanaged state, leading to the invasion of coarse grasses, bracken or scrub.

Development and Infrastructure

- Increased traffic associated with visitors to the area, resulting in problems of congestion, parking, damage to verges and stress to historic bridges;
- Footpath and bridleway erosion resulting from over-use or miss-use by off road vehicles, motorcycles or mountain bikes;
- Demand for residential and holiday homes within the National Park could lead to a number of small scale changes to the built fabric of settlements within the area, which have a significant cumulative effect on character. This could include the conversion of redundant buildings, closure of shops and schools, and introduction of tourist related facilities which engender a gradual sub-urbanisation and gentrification of settlements with inappropriate planting and potential loss of mature trees;
- Highway related changes, including road and bridge improvement, kerbing, parking controls, signing and lighting can introduce standardised highway elements into distinctive rural areas;
- Increasing traffic could put significant pressure on the network of narrow lanes within the dales leading to congestion and loss of sense of tranquillity).

Sensitivity to Change Issues

- Moderate visual sensitivity as a result of the combination of framed views to adjacent Landscape Character Types and stronger sense of enclosure in other locations;
- Moderate ecological sensitivity as a result of the patchwork of Dwarf Shrub Heath, Open Dwarf Shrub Heath, acid, neutral and calcareous grassland and pockets of deciduous woodland which provide key habitats. The upper slopes of the dales are also situated within the North York Moors SAC, SPA and SSSI.
- High landscape sensitivity as a result of the sparse settlement pattern, strong visual unity within settlements, strong pattern of stone walls and hedgerows, strong historic dimension (including the remains of abbeys, granges and monastic routeways; and overall sense of remoteness and tranquillity).

GUIDANCE

Guidance for Managing Landscape Change

Physical and Ecological Character

- **Manage** wetland habitats to enhance biodiversity and improve water quality and flood management;
- **Protect** and **enhance** areas of Dwarf Shrub Heath, Open Dwarf Shrub Heath, acid, neutral and calcareous grassland on the higher dale slopes; and broadleaved woodland on the lower slopes to strengthen landscape character;
- **Protect** the dramatic valley landform features using semi-natural landcover to enhance landform features;
- **Maintain** pastoral land uses within the dales, aiming for extensive grazing;
- **Conserve** and **restore** historic patterns of drystone walls within the dales, maintaining historic field patterns;
- **Thicken, manage** and **replant**, if necessary, hedgerows in the lower dales;
- **Seek** the active management of wood pastures and woodland, in particular the restoration of the many ancient semi-natural woodlands; and where appropriate, extend and link these habitats.

Cultural and Historic Character

- **Protect** the rich range of historic landscape features including cross dykes, funerary monuments, cairnfields, iron mines and calcining kilns and their setting;
- **Protect** the integrity and setting of Rosedale Abbey;
- **Promote** the use of local building materials, such as rubble limestone or dressed sandstone with red pantile roofs, as appropriate for repairing traditional buildings and for new build.
- **Maintain** sustainable grazing intensities and low levels of scrub to ensure the integrity and visibility of archaeological sites;
- **Maintain** the nucleated character of villages in the dales.

Aesthetic and Perceptual Character

- **Maintain** public access to enable enjoyment of this landscape and the sense of ‘escapism’ and ‘inspiration’ it provides whilst protecting vulnerable habitats, through the network of public footpaths and open access land;
- **Protect** key views to adjacent Landscape Character Types, including Sandstone Moors and Limestone Foothills and Valleys;
- **Conserve** the scattered, isolated settlement pattern, overall sense of tranquillity and remoteness; and dark night skies;
- **Minimise** light spill at night through careful lighting design – particularly within the National Park.

Signposts to Further Characterisation Information

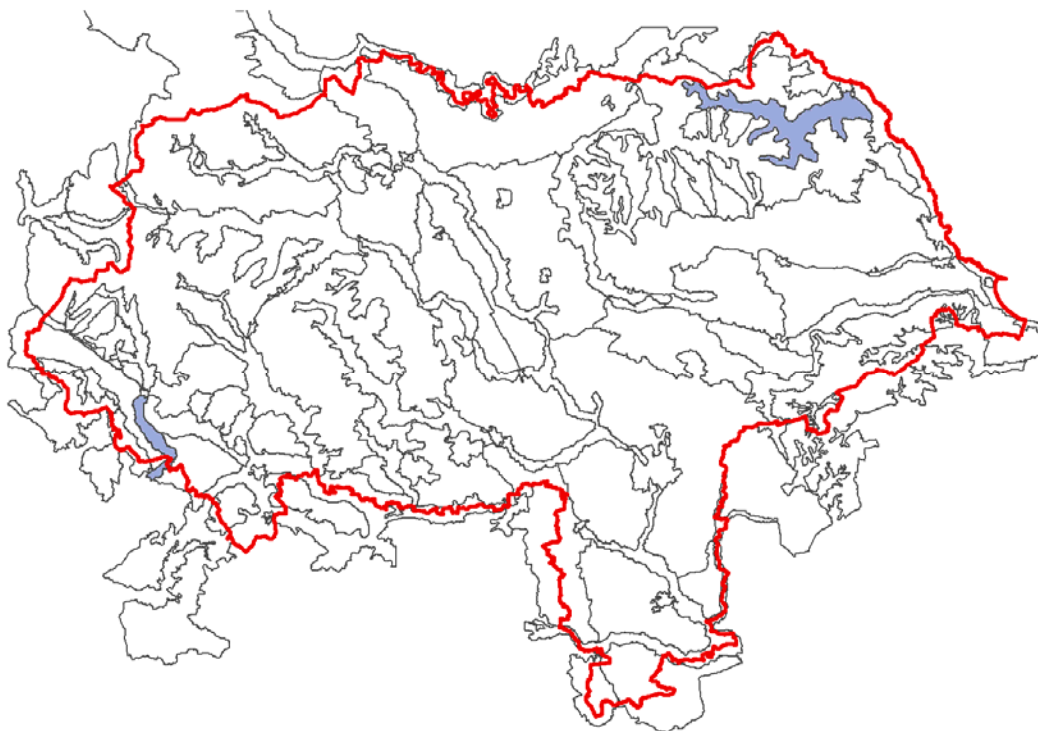
National Character Area

- NCA 25: North Yorkshire Moors and Cleveland Hills
http://www.naturalengland.org.uk/Images/jca25_tcm6-5621.pdf

Local Landscape Character Assessments

- North York Moors National Park Landscape Character Assessment (2003)
<http://www.northyorkmoors.org.uk/content.php?nID=372>

Broad Valleys (11)



CHARACTERISATION

Key Characteristics

- A series of broad valleys which punctuate the surrounding upland landscapes;
- The valleys are predominantly pastoral in character;
- Ancient upland oak woods are a key feature;
- Settled landscape with linear settlements generally contained within the valley floor;
- Historic bridges are key landscape features;
- Large number of archaeological sites, preserved within woodland.

Description

- 5.4.5 The Broad Valleys Landscape Character Type is situated within two broad locations within the Study Area – in the northeast (within the North York Moors National Park) and to the southeast (to the south of the Yorkshire Dales National Park). Landscapes encompass a series of broad valleys which are often well wooded, with trees, woodland and hedgerows. Settlement pattern is dominated by a series of villages and farmsteads, which impart a settled character on the landscape. Landscape pattern comprises a patchwork of improved grassland, arable fields, deciduous woodland and small pockets of calcareous grassland. Medium to large scale areas of coniferous woodland occupy the higher valley sides. Although the older, historic settlements are generally of a clustered form, many have expanded in linear fashion along the roads to include modern, suburban style housing. Traditional railway stations are a feature of many settlements as are the small vernacular bridges. Scattered farms are sited on the mid and upper valley sides. Views across adjacent landscapes are characteristic features of the higher valley sides.

Definitive Attributes

Geology	<ul style="list-style-type: none"> Underlain by a combination of sandstone, siltstone, mudstone and limestone This is overlain by a superficial geology of diamicton, sand and gravel
Topography & Drainage	<ul style="list-style-type: none"> Broad valleys Relatively broad rivers occupy the valley floors Where this Landscape Character Type occurs to the north of Scarborough, it encompasses an outlying hill of higher land within the valley
Land Cover	<ul style="list-style-type: none"> The Broad Valleys encompass a patchwork of improved grassland, arable fields, deciduous woodland and small pockets of calcareous grassland Medium to large scale areas of coniferous woodland occupy the higher valley sides
Enclosure / Field Pattern	<ul style="list-style-type: none"> Large areas of mixed and coniferous plantation scattered within the valleys Much of the valley floor and sides is overlain with large areas of piecemeal enclosure, consisting of small fields in an irregular pattern Planned, large-scale parliamentary enclosure fields are also a feature in places Patches of open common land on the higher valley slopes
Settlement Pattern	<ul style="list-style-type: none"> Although the older settlements are generally of a clustered form, many have expanded in linear fashion along the roads to include modern, suburban style housing Traditional railway stations are a feature of many settlements as are the small vernacular bridges. Scattered farms are sited on the mid and upper valley sides The Esk Valley is relatively densely settled, villages being of varied character, constructed mainly in sandstone with pantile roofs but with brick and slate also used as building materials Linear settlements fringe the Ribble Valley along the A65, with nucleated settlements on the opposite valley side
Visible Historic Features	<ul style="list-style-type: none"> Ridge and furrow fields, stone walls and stone buildings within the Ribble Valley

EVALUATION

Forces for Change

Agricultural Change and Land Management

- Decline of woodland and wood pasture due to neglect, changes in management, and increased grazing pressure from stock sheltering within woodlands and herbivores such as rabbits and deer;
- Decline of hedgerow trees and copses due to neglect, changes in management and absence of new planting;
- Decline in rough pasture, species rich and wet grassland in favour of improved pasture;
- Disrepair and loss of dry stone walls, neglect of hedges and replacement of walls and hedges with fencing;
- Decline in wildlife and plant species variety which contribute significantly to landscape character.

Development and Infrastructure

- Increased traffic which can cause problems of congestion, parking, damage to verges and stress to historic bridges;

- Increases in the number of visitors, resulting in disturbance to wildlife and livestock which is particularly acute in the nesting and lambing seasons. Dogs in particular can cause disturbance to wildlife;
- Highway related changes, including road and bridge improvement, kerbing, parking controls, signing and lighting can introduce standardised highway elements into distinctive rural areas;
- Increasing traffic can put significant pressure on the network of narrow lanes within the valleys leading to congestion and loss of tranquillity.

Sensitivity to Change Issues

- Moderate overall visual sensitivity as a result of a combination of open views to adjacent Landscape Character Types from the higher valley sides and a stronger sense of enclosure along the valley floor which limits intervisibility with adjacent Landscape Character Types;
- Moderate ecological sensitivity as a result of the interconnected patchwork of numerous semi-natural ancient woodlands which are sensitive to lack of management, over grazing and climate change;
- Moderate landscape sensitivity as a result of the pattern of linear settlements, generally contained within the valley floor and pattern of archaeological sites (often preserved within woodland) and historic bridges.

GUIDANCE

Guidance for Managing Landscape Change

Physical and Ecological Character

- **Maintain** the mosaic of pastoral land uses, aiming for extensive grazing;
- **Manage** wetland habitats to enhance biodiversity and improve water quality and flood management;
- **Thicken, manage and replant**, if necessary, hedgerows;
- **Seek** the active management of semi-natural ancient woodlands and, where appropriate, extend and link these habitats;
- **Improve** the management of existing broadleaved woodlands;
- **Manage** wetland habitats to help regulate flood flows, enhance biodiversity and improve resilience of these habitats to climate change;
- **Create** less intensively management floodplains;
- **Restore** natural hydrology including natural river dynamics, profiles and marginal habitats;
- **Restore, extend and link** existing fragmented areas of broadleaved woodland and ensure that they brought under sound management.

Cultural and Historic Character

- **Protect** the rich range of historic landscape features including ridge and furrow fields, stone walls and stone buildings;
- **Promote** the use of local building materials, such as rubble limestone or dressed sandstone with red pantile roofs, as appropriate for repairing traditional buildings and for new build.
- **Maintain** sustainable grazing intensities and low levels of scrub to ensure the integrity and visibility of archaeological sites;
- **Conserve and restore** historic patterns of drystone walls.

Aesthetic and Perceptual Character

- **Maintain** public access to enable enjoyment of this landscape and the sense of 'escapism' and 'inspiration' it provides whilst protecting vulnerable habitats, through the network of public footpaths and open access land;
- **Protect** key views to adjacent Landscape Character Types, including Sandstone Moors, Moors Fringe and Drumlin Valleys.

Signposts to Further Characterisation Information

National Character Area

- NCA 25: North Yorkshire Moors and Cleveland Hills
http://www.naturalengland.org.uk/Images/jca25_tcm6-5621.pdf
- NCA 33: Bowland Fringe and Pendle Hill;
http://www.naturalengland.org.uk/Images/jca33_tcm6-4975.pdf
- NCA 21: Yorkshire Dales
http://www.naturalengland.org.uk/Images/jca21_tcm6-5179.pdf

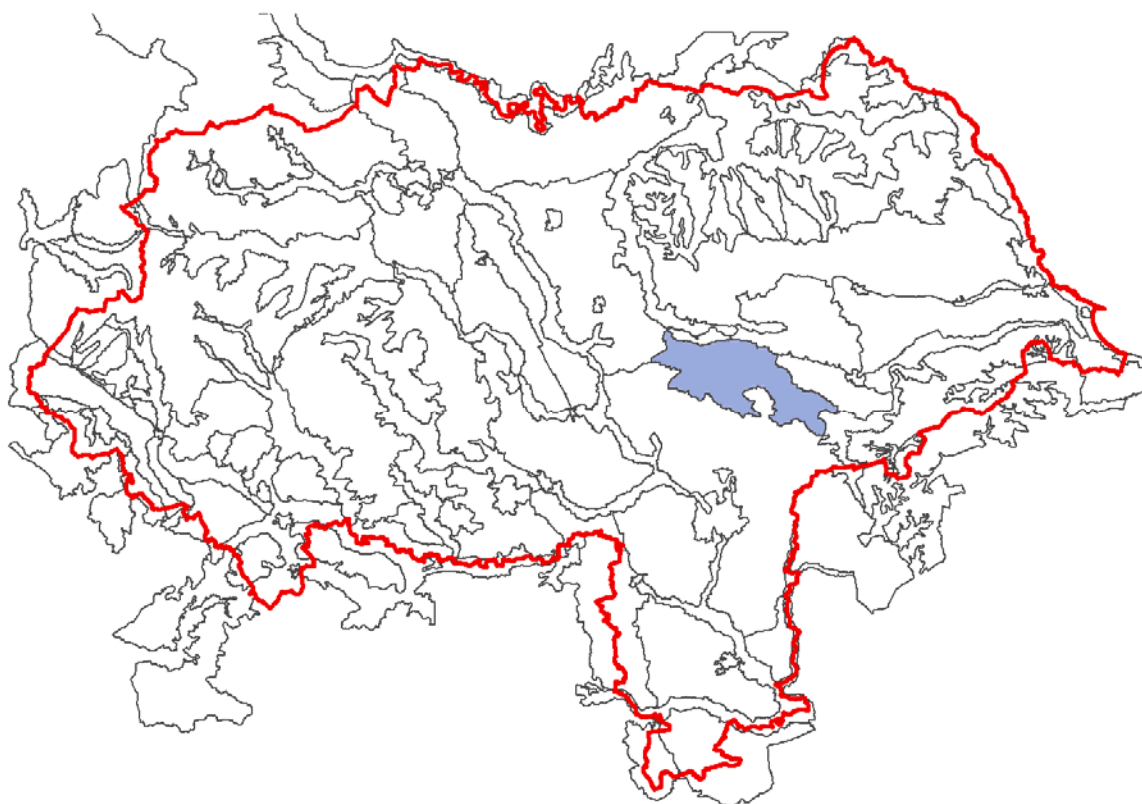
Local Landscape Character Assessments

- North York Moors National Park Landscape Character Assessment (2003)
<http://www.northyorkmoors.org.uk/content.php?nID=372>

Adjacent Landscape Character Assessments

- Forest of Bowland AONB Landscape Character Assessment (2009)
http://www.forestofbowland.com/landscape_character

Wooded Hills and Valleys (12)



CHARACTERISATION

Key Characteristics

- A series of country houses with associated designed parkland settings;
- At the eastern edge, the course of the River Derwent cuts through the dramatic Kirkham gorge;
- Strong historic character within villages, linear form with wide grass verges and widespread use of vernacular materials;
- A series of pronounced hills rise from the surrounding lower landscapes;
- Numerous ancient trackways often with wide verges and sunken below the surrounding landscape;
- A network of minor roads closely related to topography;
- Lower land comprises large-scale, modern improved fields, whilst higher land is predominantly covered by medium to small scale fields of piecemeal enclosure.

Description

5.4.6 The Wooded Hills and Valleys Landscape Character Type is characterised by a series of irregular ridges and valleys which are distinct from surrounding upland and lowland areas, forming a series of hills. It is partly situated within the Howardian Hills AONB. Prior to the last ice age, the natural drainage of the area was from west to east along the Vale of Pickering. During the last glacial period, the North Sea Ice sheet formed an ice dam within this Landscape Character Type, which resulted in the creation of Lake Pickering. The level of the lake rose until it reached the level of the lowest available outlet. This vast flow of water possessed considerable erosive force, cutting through underlying bedrock to form the dramatic, deeply

incised and winding Kirkham Gorge, through which the River Derwent now flows. The River Derwent provides the major water course in the area. The extensive and varied woodland cover is one of the most distinctive features of this Landscape Character Type. Most of the woodland occurs either on high ground or on steep slopes and this tends to increase its visual prominence. The parkland setting of the numerous country houses also contributes considerably to this well wooded character. Many ancient woodlands have been restocked with coniferous species. The largest areas of woodland are extensive commercial coniferous plantations. The hills are well wooded and include both native broadleaved woodland and commercial softwood plantations. Agriculture is rich and varied. Fields are generally large and rectilinear typical of the Parliamentary enclosures of the 18th century. Pasture predominates with intensive arable farming on shallower slopes. Hedgerows and hedgerow trees are frequent landscape elements. Large estates have a considerable influence in this character area. Estate land is characterised by large areas of parkland and woodland shelterbelts, nucleated villages and discretely located farms.

Definitive Attributes

Geology	<ul style="list-style-type: none"> • Predominantly underlain by chalk laid down during the Cretaceous period
Topography & Drainage	<ul style="list-style-type: none"> • Large-scale, elevated landscape of rounded, rolling hills and plateaux that are dissected by occasional deep valleys
Land Cover	<ul style="list-style-type: none"> • Remnants of unimproved or semi-improved chalk grassland • Scattered small shelterbelt plantations • Large areas of coniferous woodland in the north
Enclosure / Field Pattern	<ul style="list-style-type: none"> • Large swathes of modern, improved fields within the southern half of the Landscape Character Type, interspersed with small fields of piecemeal enclosure origin • A patchwork of planned enclosure, large-scale parliamentary enclosure, coniferous woodland and semi-natural broadleaf woodland in the north of the Wooded Hills and Valleys
Settlement Pattern	<ul style="list-style-type: none"> • A generally lightly settled landscape comprising occasional villages; and large scattered farmsteads on high ground • Estate and parkland landscapes with large country houses, estate villages and estate woodlands • Buildings are predominantly brick, but sometimes chalk and pantile
Visible Historic Features	<ul style="list-style-type: none"> • Castle Howard and parkland • Kirkham Abbey • Newburgh Priory (with integral views across to Byland Abbey) • Yearsley Long Barrow • Barrow cemetery at Coney Hills • Ridge and Furrow Field Systems at Crambe • Several villages have historic greens

EVALUATION

Forces for Change

Agricultural Change and Land Management

- Lack of management or inappropriate management threatens hedgerows, however there has been a significant improvement in the last ten years;
- Lack of sensitive management of semi-natural woodland and grassland habitats. Agricultural improvements threaten species rich grassland which relies on nutrient poor substrates;
- Historic parkland is a feature of the area however there is ongoing pressure to convert parkland to farmland which has repercussions for landscape character;
- Much existing parkland is in need of management and restoration as many trees are overmature.

Development and Infrastructure

- Development pressure could have localised impacts on the landscape;
- Changes in agricultural practices could lead to the need for new larger agricultural buildings which can have a significant impact on the landscape if they are situated in prominent locations;
- Changes in farming practice and the high cost of maintenance could lead to historic farm buildings falling into disrepair. Conversion could potentially lead to the introduction of lighting, gates, boundary features and planting which are inconsistent with the established rural character;
- Housing development including infill development could threaten the character of villages if it does not reflect the existing patterns of roads, greens, boundary features, gardens, building form and height and use of vernacular building materials and roofing details. For instance many villages in the area are linear with wide grass verges forming village greens and this should be reflected in any new development;
- Development of telecommunication masts, wires or other tall structures could have an adverse visual impact, particularly if sited on visually sensitive skylines.

Climate Change

- Water shortages may have a pronounced effect on the agriculture of this Landscape Character Type due to the underlying geology;
- Farm practices such as cross contour ploughing and better soil management can reduce surface water run-off from farmland.

Sensitivity to Change Issues

- Moderate overall visual sensitivity as a result of a combination of open views to adjacent Landscape Character Types from the higher valley sides and a stronger sense of enclosure within woodlands and valley, limiting intervisibility with adjacent Landscape Character Types;
- Moderate ecological sensitivity as a result of the interconnected patchwork of numerous semi-natural ancient woodlands; and mature parkland and hedgerow trees, which are sensitive to lack of management, over grazing and climate change;
- High landscape sensitivity as a result of the predominantly intact pattern of mature parkland landscapes interspersed with pastoral and arable fields and crossed by numerous ancient, sunken trackways, often with wide verges.

GUIDANCE

Guidance for Managing Landscape Change

Physical and Ecological Character

- **Protect** the complex and dramatic landform features of ridges, plateaux, hills, scarps, valleys and gorges;
- **Encourage** the use of semi-natural landcover to enhance landform features, particularly along skylines, scarps and gorges;
- **Encourage** measures to store water and reduce usage;
- **Conserve** and **manage** the wooded character of the hills and the pattern of historic parklands;
- **Maintain** sustainable grazing intensities and scrub management on archaeological sites and earthworks;
- **Bring** woodland within parkland into sound management (including management as wood pasture);

- **Manage** woodland to sequester carbon, as well as providing a source of timber and wood fuel;
- **Maintain** the mosaic of pastoral land uses, aiming for extensive grazing;
- **Widen** the range of habitats in arable areas by creating permanent grassland field margins and linking these to the wider grassland resource where possible.

Cultural and Historic Character

- **Protect** the rich range of historic landscape features including ridge and furrow field systems, long barrows, abbeys and castles;
- **Protect** the settings of Castle Howard and associated parkland, Kirkham Abbey and Newburgh Priory;
- **Maintain** sustainable grazing intensities and scrub management on archaeological sites and earthworks;
- **Protect** the lightly settled pattern of villages and scattered farmsteads;
- **Promote** the use of local building materials, such as rubble limestone or dressed sandstone with red pantile roofs, as appropriate for repairing traditional buildings and for new build.
- **Restore** and **manage** historic parklands, retaining mature trees and restoring vistas.

Aesthetic and Perceptual Character

- **Maintain** public access to enable enjoyment of this landscape and the sense of ‘escapism’ and ‘inspiration’ it provides whilst protecting vulnerable habitats, through the network of public footpaths and open access land;
- **Seek** opportunities to develop new educational access schemes to promote the strong agricultural, forestry, cultural and historical significance of the landscape.

Signposts to Further Characterisation Information

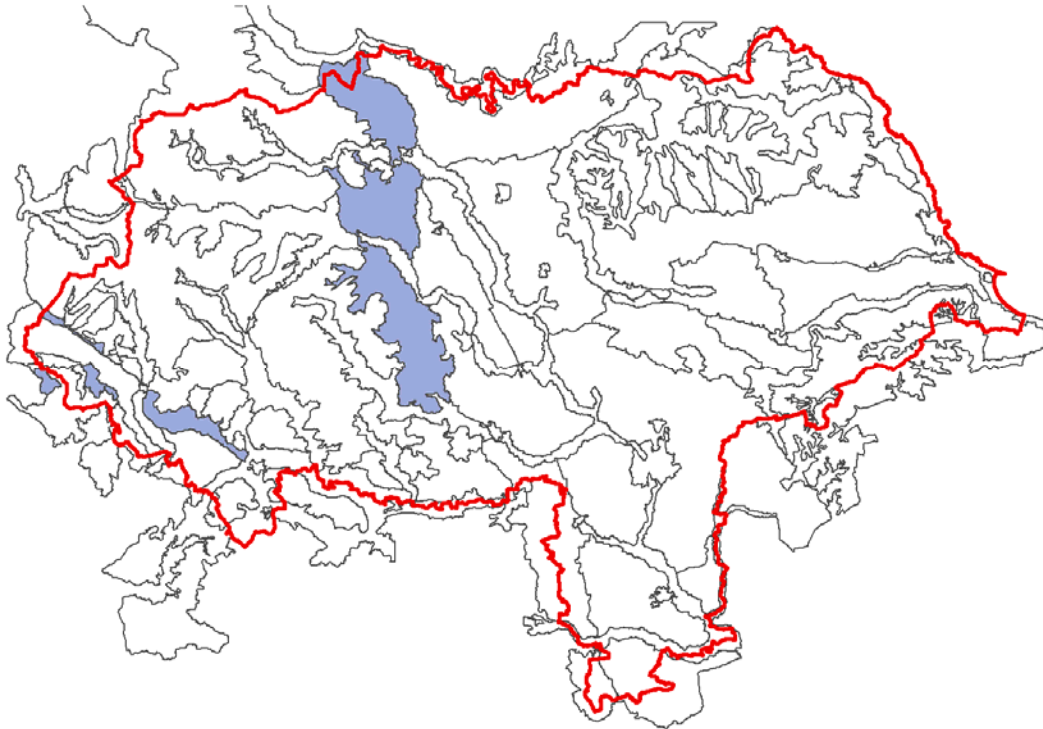
National Character Area

- NCA 29: Howardian Hills
http://www.naturalengland.org.uk/Images/jca29_tcm6-5558.pdf

Local Landscape Character Assessments

- Howardian Hills AONB Landscape Character Assessment (1995),
- Hambleton & Howardian Hills Landscape Character Assessment (2007).
<http://www.northyorkmoors.org.uk/content.php?nID=790>

Moors Fringe (13)



CHARACTERISATION

Key Characteristics

- Gently sloping landscape which forms a transition between higher moors and fells to the west and the lower magnesian limestone ridge to the east;
- Predominantly rural landscape with an associated relatively strong sense of tranquillity;
- A patchwork of arable and pastoral fields which are delineated by stone walls and hedgerow field boundaries;
- Dispersed settlement pattern of small villages and large farmsteads linked by a network of minor roads;
- A mosaic of habitats including moorland and acid grassland support a large number of wading bird species;
- Settlements generally display buildings which are predominantly constructed from local stone, resulting in strong visual unity;
- Historic parklands and wooded estates enclosing a number of country houses are scattered throughout the landscape;
- Reservoirs are key landscape features in places.

Description

5.4.7 The Moors Fringe Landscape Character Type is situated to the west of Richmond, Masham and Harrogate, and runs north-south across the Study Area. It also occurs at the southern edge of the Yorkshire Dales National Park and northern edge of the Forest of Bowland AONB. It comprises the gently sloping eastern fringes of the Yorkshire Dales (Limestone Moors) to the north and Gritstone Low Moors and Fells to the south. There is local variation in topography. The Moors Fringe is crossed by the valleys of River Swale, River Ure and River Nidd, which drain west to east. This is a transitional landscape lying between predominantly arable landscapes to the east and pastoral farming to the west. Wooded valley slopes, plantations, numerous small woodlands and hedgerow trees provide a sense of enclosure within this

Landscape Character Type. Enclosure patterns vary greatly depending on location and historic origin, including larger scale enclosures with very strong landscape patterns, and small-scale irregular field patterns, close to villages and often of medieval origins. There is a transition in the type of field enclosure, varying from hedges in the east to dry stone walls at higher elevations in the west. This is an essentially rural landscape that is largely undeveloped with an associated relatively strong sense of tranquillity. It supports a moderate density of small villages and large farmsteads linked by a network of minor roads. Settlements in the area are predominantly constructed from local stone, thereby resulting in strong visual unity and sense of harmony with the surrounding landscape, mostly using Millstone Grit but with some limestone in the east. Historic parklands and wooded estates enclose a number of country houses including Grantley Hall, Mowbury House, Swinton Park and Jervaulx Park. Reservoirs are numerous, reflecting the demands of the growing urban populations in the valleys.

Definitive Attributes

Geology	<ul style="list-style-type: none"> • This area is characterised by a mixture of millstone grit bedrock and Diamicton superficial deposits • A large proportion of the area is covered by Diamicton
Topography & Drainage	<ul style="list-style-type: none"> • Local topographic variations, however the landscape slopes gently from west to east, marking the east-facing side slopes of Yorkshire Dales • At the edges of the Yorkshire Dales, landform slopes from north to south, whilst at the edges of the Forest of Bowland AONB, landform slopes from south to north • The fringe is interrupted in places by river valleys that drain west to east at the edges of the Yorkshire Dales
Land Cover	<ul style="list-style-type: none"> • An essentially rural landscape with mixed arable and pastoral farming • Typically well-wooded valley slopes, and with plantations, numerous small woodlands and hedgerow trees
Enclosure / Field Pattern	<ul style="list-style-type: none"> • Fields vary from large-scale and regular to small-scale and irregular • Reservoirs are numerous, reflecting the demands of growing urban populations to the east
Settlement Pattern	<ul style="list-style-type: none"> • Scattered large farmsteads and a moderate density of small villages, typically of medieval origin, linked by a network of minor roads • Settlements predominantly constructed from local stone, mostly using Millstone Grit but with some limestone in the east
Visible Historic Features	<ul style="list-style-type: none"> • Constable Burton Hall and park • Walburn Hall and medieval settlement • Fountains Abbey and Studley Royal designed landscape • Hackfall wood designed landscape • Navy camp and Prisoner of War Camp at Breary Bank • Ridge and furrow and lynchet field systems • Historic parklands and wooded estates enclose a number of country houses including Grantley Hall, Mowbury House, Swinton Park and Jervaulx Park

EVALUATION

Forces for Change

Agricultural Change and Land Management

- Conversion of remnant grassland to arable or pasture, resulting in the loss of relict field systems around farmsteads;
- Intensification of agriculture resulting in loss of field boundaries and hedgerow trees;
- Conifer plantation forestry has had a considerable impact on the character and landscape pattern of the Moors Fringe in the past;

- The changing fortunes of the farming industry have resulted in the deterioration of drystone walls and the use of post and wire fencing for stock proofing;
- Outside of protected nature conservation areas, ecological interest has been depleted through agricultural improvements.

Development and Infrastructure

- Potential new development which could be visually intrusive, particularly on the higher slopes and result in loss of sense of tranquillity;
- Road widening or by-pass schemes, affecting the A64 for example, resulting in standardised designs and highway elements, including lighting columns, which are potentially discordant with the character of roads and boundary features.
- Disrepair of traditional farm buildings resulting in gradual decay and loss. Conversion has the potential to introduce standardised suburban elements which are not consistent with local landscape character;
- New large-scale farmsteads and agricultural buildings can introduce dominant landscape elements, resulting in changes to existing landscape character;
- Pressure for new housing within the landscape in close proximity to Harrogate;
- Conversion of barns, especially where new access arrangements and domestication of the setting are required, is likely to change the predominantly rural character of the Moors Fringe

Sensitivity to Change Issues

- High visual sensitivity as a result of strong intervisibility with adjacent higher and lower Landscape Character Types;
- Moderate ecological sensitivity overall as a result of the numerous small woodlands and hedgerows which provide key habitats. These have, however, been depleted in places by agricultural improvement;
- High landscape and cultural sensitivity as a result of the predominantly intact pattern of hedgerows and drystone walls at field boundaries, the patchwork of historic designed landscapes, predominantly rural character and relatively strong sense of tranquillity.

GUIDANCE

Guidance for Managing Landscape Change

Physical and Ecological Character

- **Protect** the pastoral character of the Moors Fringe Landscape Character Type;
- **Conserve** and **restore** drystone walls, particularly where they are highly visible within the landscape and form strong patterns with a high degree of integrity;
- **Manage** areas of woodland, allowing to thicken;
- **Manage** grazing to facilitate the natural regeneration of woodland;
- **Encourage** the management of permanent pasture to maximise its ecological value by avoidance of ploughing, re-seeding, artificial fertiliser, drainage and other potentially damaging farming operations as well as encouraging appropriate stocking levels and land use cycle;
- Where possible, **remove** invasive, non-native species.

Cultural and Historic Character

- **Manage** and **restore** historic parklands and traditional buildings, retaining veteran trees and reintroducing wood pasture;

- **Ensure** that the strong visual unity of settlements and traditional buildings is maintained using appropriate local materials – mostly Millstone Grit for buildings, roofs and walls;
- **Protect** the rich range of historic landscape features including numerous designed historic parks and gardens and their settings;
- **Maintain** sustainable grazing intensities and scrub management on archaeological sites and earthworks;
- **Restore** and **manage** historic parklands, retaining mature veteran trees and restoring vistas;
- **Encourage** a built form which respects the simple architecture of farmsteads and cottages and reflects the characteristic settlement pattern of small villages, linked by minor roads.

Aesthetic and Perceptual Character

- **Maintain** public access to enable enjoyment of this landscape and the sense of ‘escapism’ and ‘inspiration’ it provides whilst protecting vulnerable habitats, through the network of public footpaths and open access land;
- **Seek** opportunities to develop new educational access schemes to promote the strong agricultural, forestry, cultural and historical significance of the landscape.

Signposts to Further Characterisation Information

National Character Area

- NCA 22: Pennine Dales Fringe
http://www.naturalengland.org.uk/ourwork/landscape/englands/character/areas/pennine_dales_fringe.aspx
- NCA 21: Yorkshire Dales
http://www.naturalengland.org.uk/Images/jca21_tcm6-5179.pdf
- NCA 33: Bowland Fringe and Pendle Hill
http://www.naturalengland.org.uk/Images/jca33_tcm6-5179.pdf

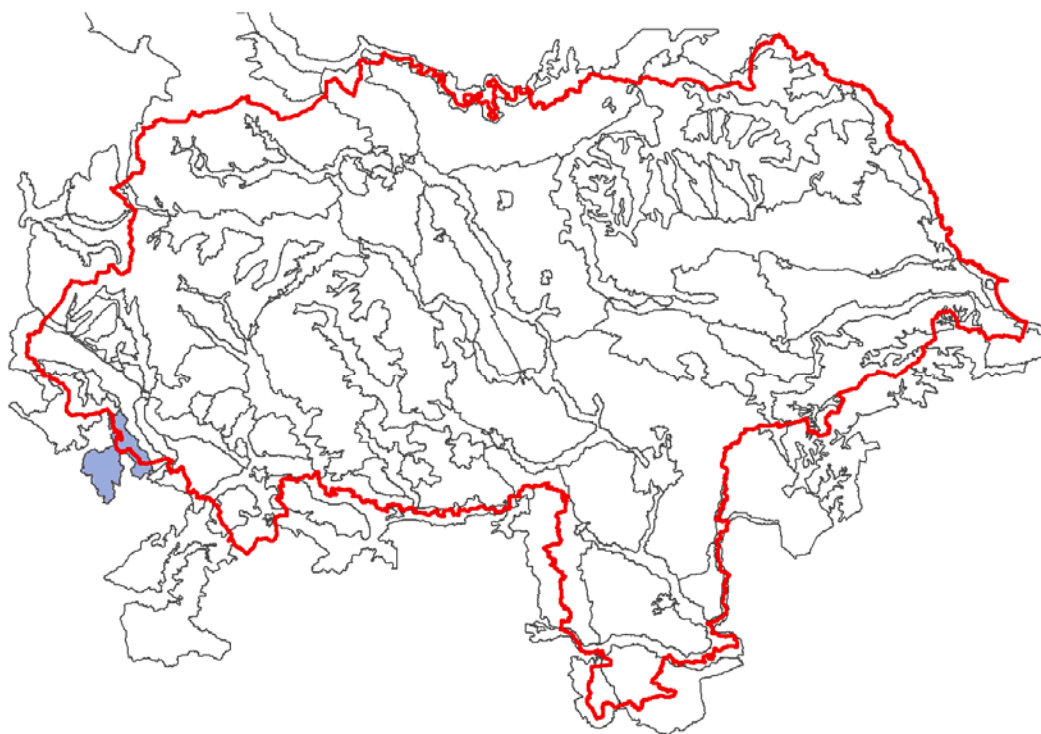
Local Landscape Character Assessments

- Harrogate District Landscape Character Assessment (2004)
- Nidderdale AONB Landscape Character Assessment (1991)

Adjacent Landscape Character Assessments

- County Durham Landscape Character Assessment (2008)
<http://www.durham.gov.uk/Pages/Service.aspx?ServiceId=6397>
- Craven Landscape Character Assessment (2002)
<http://www.cravenc.gov.uk/Craven/Residents/PlanningServices/PlanningPolicy/LDF/BackgroundStudies/LandscapeCharacterAssessment/>

Rolling Upland Farmland (14)



CHARACTERISATION

Key Characteristics

- Predominantly pastoral landscape, encompassing gently undulating farmland;
- An intact network of drystone walls at field boundaries creates a distinctive landscape structure;
- Stunted, wind-blown hawthorns and gorse on roadsides and steeper hills;
- Isolated farmsteads, stone barns and walled circular enclosures are key features;
- Strong sense of remoteness and tranquillity, with associated dark night skies;
- Pockets of broadleaved woodland and moorland.

Description

- 5.4.8 The Rolling Upland Landscape Character Type is situated at the north-western corner of the Study Area and continues outside the County boundary to the west (within the Forest of Bowland AONB). It encompasses a predominantly pastoral landscape, with the underlying geology reflected in the materials used in field boundary walls and farm buildings. The combination of limestone and gritstone has created a gentle landscape of soft rolling hills, cloaked with moorland grasses in the higher parts, and lush green pastures and herb-rich meadows on the lower slopes. Stands of beech trees are a distinctive feature, growing on rocky slopes and outcrops, an often enclosed by circular walls. Similarly, stone circles act as sheep folds, and exist with isolated farmsteads and stone barns. Intact networks of stone walls, which suggest a sense of enclosure in an exposed landscape, create distinctive landscape structures. Small clustered stone villages occur on south facing slopes and there are also some small linear settlements. Stunted windblown hawthorns and gorse lines the lanes and steeper hillsides.

Definitive Attributes

Geology	<ul style="list-style-type: none">• Bedrock geology of limestone and gritstone, overlain by superficial deposits of diamicton
Topography & Drainage	<ul style="list-style-type: none">• Gently undulating landform;• Elevated farmland landscape.
Land Cover	<ul style="list-style-type: none">• Predominantly improved grassland, which is interspersed with small pockets of broadleaved woodland and neutral grassland.
Enclosure / Field Pattern	<ul style="list-style-type: none">• Predominantly, fields of planned enclosure, which are interspersed with occasional pockets of ancient enclosure and unenclosed moorland
Settlement Pattern	<ul style="list-style-type: none">• A dispersed settlement pattern of scattered farmsteads, which are generally accessed via rural roads or tracks.
Visible Historic Features	<ul style="list-style-type: none">• Isolated stone farmsteads, stone barns and walled circular enclosures.

EVALUATION

Forces for Change

Agricultural Change and Land Management

- Improved pasture surrounded by stone walls where intensive farming has spread onto higher ground;
- Outside of protected nature conservation areas, ecological interest has been depleted through agricultural improvements;
- Intensification of agriculture resulting in loss of field boundaries and hedgerow trees particularly on the northern and western edges of the area where hedges rather than ditches are characteristic;
- The changing fortunes of the farming industry have resulted in the deterioration of drystone walls and the use of post and wire fencing for stock proofing.

Development and Infrastructure

- Conversion of traditional farm buildings to holiday homes in the past;
- Increasing traffic pressure on minor road corridors, which may lead to highway improvements that detract from their rural character and erode tranquillity;
- Disrepair of traditional farm buildings resulting in gradual decay and loss. Conversion has potential to introduce standardised suburban elements which are not consistent with local landscape character;
- New large-scale farmsteads and agricultural buildings can introduce dominant landscape elements, resulting in changes to existing landscape character;
- Conversion of barns, especially where new access arrangements and domestication of the setting are required, is likely to change the predominantly rural character

Sensitivity to Change Issues

- High visual sensitivity as a result of strong intervisibility with adjacent higher and lower Landscape Character Types;
- Moderate ecological sensitivity as a result of the presence of trees and pockets of ancient woodland which provide local habitat and wildlife corridors;
- High landscape and cultural sensitivity as a result of the intact network of limestone drystone walls which contribute to coherent pattern; and predominantly rural character, strong sense of remoteness, tranquillity and dark night skies.

GUIDANCE

Guidance for Managing Landscape Change

Physical Character and Ecological Character

- **Conserve** the distinctive undulating landform by minimising vertical elements such as communication masts and wind turbines;
- **Avoid** loss and erosion of woodlands through the amalgamation and diversification of farms;
- **Conserve** the remaining unimproved grasslands and hay meadows by employing traditional management practices and avoiding the use of artificial fertilisers;
- **Manage** limestone grasslands to meet biodiversity objectives;
- **Conserve** stands of beech and walled enclosures;
- **Conserve** and **maintain** distinctive clumps of trees;
- **Conserve** pockets of ancient woodland;
- **Encourage** conservation of existing key habitats and landscape features and expand the resource through habitat restoration and re-creation guided by ecological networks.

Cultural and Historic Character

- **Conserve** the intact network of limestone walls at field boundaries, which contribute to distinctive landscape pattern;
- **Encourage** the repair of stone walls where in decline or dilapidated, utilising local vernacular materials (limestone);
- **Conserve** the dispersed pattern of stone villages, hamlets and isolated farmsteads;
- **Conserve** the archaeological and historic environment in order to maintain a rich cultural landscape;
- **Ensure** that highway improvement schemes respect and reflect local character and encourage the use of traditional signage where possible.

Aesthetic and Perceptual Character

- **Maintain** the predominantly open character of the landscape;
- **Protect** key views to and from the area from tall and vertical large-scale developments that may erode the open and undeveloped character of the area.

Signposts to Further Characterisation Information

National Character Area

- NCA 33: Bowland Fringe and Pendle Hill
http://www.naturalengland.org.uk/Images/jca33_tcm6-5179.pdf
- NCA 34: Bowland Fells
http://www.naturalengland.org.uk/Images/jca34_tcm6-5179.pdf

Local Landscape Character Assessments

- Forest of Bowland AONB Landscape Character Assessment (2009),
http://www.forestofbowland.com/landscape_character
- Yorkshire Dales National Park Landscape Character Assessment (2001)
http://www.yorkshiredales.org.uk/index/learning/landscape_character.htm

Adjacent Landscape Character Assessments

- Craven Landscape Character Assessment (2002)
<http://www.cravenc.gov.uk/Craven/Residents/PlanningServices/PlanningPolicy/LDF/BackgroundStudies/LandscapeCharacterAssessment/>

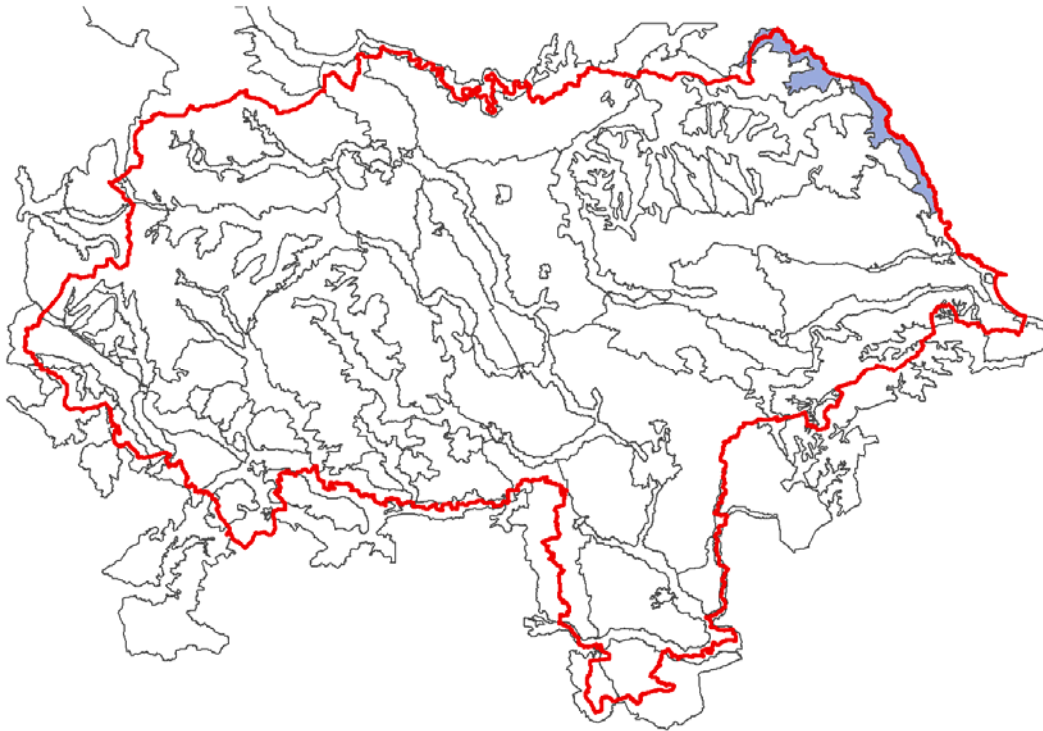
5.5 Coastal Landscapes

5.5.1 The Coastal Landscapes are situated in the east of the Study Area, lining the point at which landscape becomes seascape in the North Sea. They extend from Staithes in the north to Reighton Sands in the south.

5.5.2 The following Landscape Character Types form the Coastal Landscapes Primary Landscape Unit:

- Rugged Cliffs, Coastal Valleys and Bays (15)
- Soft Coastal Cliffs and Bays (16)
- Chalk Headland (17)

Rugged Cliffs, Coastal Valleys and Bays (15)



CHARACTERISATION

Key Characteristics

- Dramatic coastal cliffs and bays which form an edge between landscape and seascape;
- Underlying geological formation from the Jurassic period, result in a rugged, jagged edged coastline in many places;
- Historic quarrying and mining features associated with production of jet, ironstone and alum;
- Small coastal settlements and fishing villages crowded into tight cliff foot locations confined in narrow valleys where they meet the sea;
- Areas of ancient semi-natural woodland on steep valley sides which provide a sense of enclosure;
- Patchworks of arable fields and improved grassland, interspersed with small pockets of deciduous woodland and suburban development;
- Dramatic, open views across an ever-changing open seascape to the east.
- A series of valleys which mark the point at which rivers meet the coastal edge;
- The late 18th/early 19th century Grade II* listed garden at Mulgrave Castle is a key landscape feature;
- There is strong visual unity and settlements have a predominantly historic character;
- Natural beach, cliff and wave cut platforms are key features.

Description

- 5.5.3 The Rugged Cliffs, Coastal Valleys and Bays Landscape Character Type is located along the eastern edge of the Study Area between Staithes and Filey. It is characterised by steep, rugged coastal cliffs and bays (at Staithes and Runswick Bay) with an undulating or rolling coastal hinterland underlain by sandstones and mudstones. Exposures of Jurassic rocks are key features. In places, the cliffs are softer, providing a key habitat for invertebrates (many of which

are rare). The foreshore at Sandsend is largely sandy and straight, the foreshore at Runswick Bay is sandy and rocky, whilst the Robin Hoods Bay foreshore comprises mudstone, the beds of which sweep round the bay in a broad arc. Broad valleys to the northwest and southeast of Whitby, which flow eastwards into the North Sea, drained by a series of steeply incised and winding minor becks are also a key feature. The becks frequently occur in pairs, following close and parallel courses with occasional waterfalls. The watercourses tend to be well-wooded on the floors and lower sides of the valleys, particularly to the northwest of Whitby where the Mulgrave Woods occupy much of the valley. The woodland is predominantly ancient semi natural woodland. Wide wave cut platforms are a feature of the coastline and sand or sand/shingle areas are relatively infrequent. Deep wooded ravines and undercliffs (wooded areas below the cliff tops) are characteristic features of this section of the coastline. The cliffs are of considerable interest, both geologically and botanically. They have additional heritage interest resulting from historic quarrying and mining for jet, ironstone and alum. Elevated areas allow panoramic long distance views. Small coastal settlements and fishing villages are characteristically crowded into tight cliff foot locations or are confined into narrow valleys where they meet the sea. The coastal hinterland is dissected by deep valleys with winding minor becks and deciduous woodland, which contrast with the openness of the surrounding farmed landscape. Robin Hoods Bay is a popular tourist destination, with its cluster of red roofed buildings perched one above the other and a labyrinth of passageways and steps. Camping and caravan sites and car parks are numerous in Robin Hood's Bay, introducing a human element into the landscape. It is dominated by intensive farmed arable fields, which are interspersed with pasture and forestry plantations. Farmland has a bleak and open appearance, with the fields defined by a mixture of trimmed hedgerows and stone walls. Hedgerow trees are infrequent are often stunted and wind sculpted. The sandstone cliffs are designated as part of the North Yorkshire and Cleveland Heritage Coast. There is a relatively strong sense of remoteness and tranquillity overall.

Definitive Attributes

Geology	<ul style="list-style-type: none"> • Linear belts of sandstone bedrock within the east, interspersed with small pockets of sandstone, siltstone and mudstone; • Most of the Landscape Character Type is overlain by superficial deposits of Diamicton
Topography & Drainage	<ul style="list-style-type: none"> • Slopes downwards from west to east from approximately 90 metres to 20 metres AOD • At the eastern edge, this Landscape Character Type generally terminates in cliffs which provide an abrupt edge between landscape and seascape • A series of relatively narrow valley corridors which flow from higher ground in the west towards and into the North Sea in the east
Land Cover	<ul style="list-style-type: none"> • Dynamic botanical variation along cliff edges • Species-rich coastal grasslands • A patchwork of arable fields and improved grassland, interspersed with small pockets of deciduous woodland • Long, linear belts of deciduous woodland are a strong feature of the valleys, often following the course of the river
Enclosure / Field Pattern	<ul style="list-style-type: none"> • This Landscape Character Type is covered by a patchwork of medium and large sized parliamentary enclosure fields • Fields within the valleys predominantly consist of medium sized historic piecemeal enclosure fields in an irregular pattern • There are also pockets of large-scale historic fields which are the result of parliamentary enclosure
Settlement Pattern	<ul style="list-style-type: none"> • This area is characterised by a relatively straight cliff edge which inhibits the development of harbours or coastal settlements • Roads tend to run parallel to the cliff top at a little distance from the edge itself. Linear villages have developed along the roads at Cloughton and Hinderwell • There is also a scattering of dwellings along roads. Characteristic coastal settlements and fishing villages are crowded into tight cliff foot locations

	<p>or confined within the narrow valleys where they meet the sea</p> <ul style="list-style-type: none"> • Buildings are often three storey, constructed in stone, brick or with a rendered finish, with pantile or slate roofs and houses are accessed by narrow streets or footpaths only • This is a settled agricultural landscape with farmland continuing up to the cliff edge • Individual farmsteads are located throughout the area, often accessed by farm tracks • The former Alum Works at Ravenscar which is currently owned by the National Trust are a feature • Visitor facilities are concentrated within coastal settlements • The main settlements are Staithes, Runswick and Robin Hoods Bay which are all located on the coast
Visible Historic Features	<ul style="list-style-type: none"> • Alum Works at Kettleness • William Smith Rotunda museum • Alum quarries and works north of Sandsend Bridge • Whitby Abbey: saxon double-house, post-conquest Benedictine monastery, 17th century manor house and 14th century cross • Moated site at Low Laithes Farm, Whitby Laithes • Newton Mulgrave Medieval Settlement • Ash Holm Alum works to the southeast of Mulgrave Castle • Peak Alum works • Old Mulgrave Castle and historic park and garden • Foss Castle (Motte and Bailey: a precursor to Old Mulgrave Castle)

EVALUATION

Forces for Change

Agricultural Change and Land Management

- Loss of coastal grassland via coastal erosion;
- The threat of coastal erosion may lead to the introduction of coastal defence measures however the sandstone cliffs in this Landscape Character Type tend to be relatively resistant to coastal erosion.
- Decline of hedgerow trees and copses due to neglect, changes in management and absence of new planting;
- Decline in rough pasture, species rich and wet grassland in favour of improved pasture
- Disrepair and loss of dry stone walls, neglect of hedges and replacement of walls and hedges with fencing.
- Agricultural land is sensitive to change of use and diversification resulting in sub-urbanisation;
- Beach, cliffs, seafront and promenade features vulnerable to visually insensitive coastal defences.

Development and Infrastructure

- Footpath and bridleway erosion resulting from over-use or miss-use by off road vehicles, motorcycles or mountain bikes. Visitors can cause disturbance to wildlife and livestock which is particularly acute in the nesting and lambing seasons. Dogs in particular can cause disturbance to wildlife;
- Increased traffic associated with visitors to the coast, resulting in problems of congestion, parking and damage to verges.
- The Landscape Character Type contains a number of caravan and camping sites which are visually intrusive features in several locations;
- There may be a demand for higher quality timber lodge style holiday accommodation, holiday villages can form prominent and intrusive features within the landscape if they are

poorly located. The cumulative effect of development in the coastal region should also be considered as piecemeal development can alter the rural and sparsely settled character;

- Modern expansion of villages or farmsteads on the adjacent flatter cliff top areas which may be unsympathetic to local landscape character.

Climate Change

- It is likely to become increasingly difficult to defend parts of Robin Hoods Bay against coastal erosion in the future. This is due to geo-morphological processes rather than climate change;
- Engineered coastal defences can introduce alien and artificial elements into coastal landscapes;
- Offshore wind energy developments may have a visual impact on the coast and have other environmental impacts.

Mineral Extraction

- Historically there were a number of quarries and mines within the cliffs extracting jet, ironstone and alum.

Sensitivity to Change Issues

- High visual sensitivity as a result of the strong intervisibility with adjacent coastal and inland Landscape Character Types and strong intervisibility within views from the sea;
- High ecological sensitivity as result of the presence of numerous diverse coastal habitats which support rare species (for example, the cliffs support rare invertebrates and several sections are designated as SSSI);
- High landscape and cultural sensitivity as a result of the dynamic landscape pattern of striking cliffs and undercliffs, deep wooded ravines and coastal hinterland; combined with remnant historic jet, ironstone and alum mines and a historic settlement pattern of small coastal settlements and fishing villages crowded into tight cliff foot locations or confined in narrow valleys where they meet the sea.

GUIDANCE

Guidance for Managing Landscape Change

Physical and Ecological Character

- **Manage** and enhance the range of habitats and features that make most of this area worthy of Heritage Coast designation;
- **Encourage** the restoration of dynamic river and coastal processes where possible;
- **Use** semi-natural landcover to enhance landform features, particularly along the skylines and cliffs.
- **Manage** and enhance the range of habitats and features that make most of this area worthy of Heritage Coast designation;
- **Improve** flood management schemes;
- **Use** semi-natural landcover to enhance landform features, particularly along the higher valley slopes.
- **Improve** flood management schemes;
- **Use** semi-natural landcover to enhance landform features, particularly along the higher valley slopes;
- **Conserve** pockets of deciduous woodland.
- **Improve** flood management schemes;
- **Protect** key coastal habitats which support plant and invertebrate species;
- **Protect** natural coastal erosion processes through the maintenance of groynes.

Cultural and Historic Character

- **Protect** the rich range of historic features including alum quarries and works and historic buildings;
- **Protect** the setting of Whitby Abbey;
- **Protect** the sandstone cliffs as important geological and geomorphological features and as a habitat for rare species of plants and invertebrates.
- **Protect** the rich range of historic designed landscapes, villages and remnant peat and alum mines;
- **Protect** the setting of Mulgrave Castle.

Aesthetic and Perceptual Character

- **Maintain** public access to enable enjoyment of this landscape and the sense of 'escapism' and 'inspiration' it provides whilst protecting vulnerable habitats, through the network of public footpaths and open access land;
- **Seek** opportunities to develop new educational access schemes to promote the strong agricultural, forestry, cultural and historical significance of the landscape;
- **Promote** safe access to the coast, where appropriate;
- **Promote** understanding and awareness of the rich geological evidence, in particular along the coastline (Dinosaur Coast);
- **Conserve** the sense of tranquillity and relative remoteness;
- **Maintain** safe access to the coast through open access land and promote new links to the Coast to Coast path;
- **Encourage** specialist forms of recreation appropriate to the area, including heritage tourism;
- **Plan** for the improved access to and enjoyment of the coast through developing the new Coastal Access trail in consultation with landowners and key stakeholders, taking into account the special interests and creating a rich experience for visitors.
- **Maintain** public access to enable enjoyment of this landscape and the sense of 'escapism' and 'inspiration' it provides whilst protecting vulnerable habitats, through the network of public footpaths and open access land;
- **Seek** opportunities to develop new educational access schemes to promote the strong agricultural, forestry, cultural and historical significance of the landscape;
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- **Conserve** the sense of tranquillity and relative remoteness;
- **Maintain** safe access to the coast through open access land and promote new links to the Coast to Coast path;
- **Encourage** specialist forms of recreation appropriate to the area, including heritage tourism.

Signposts to Further Characterisation Information

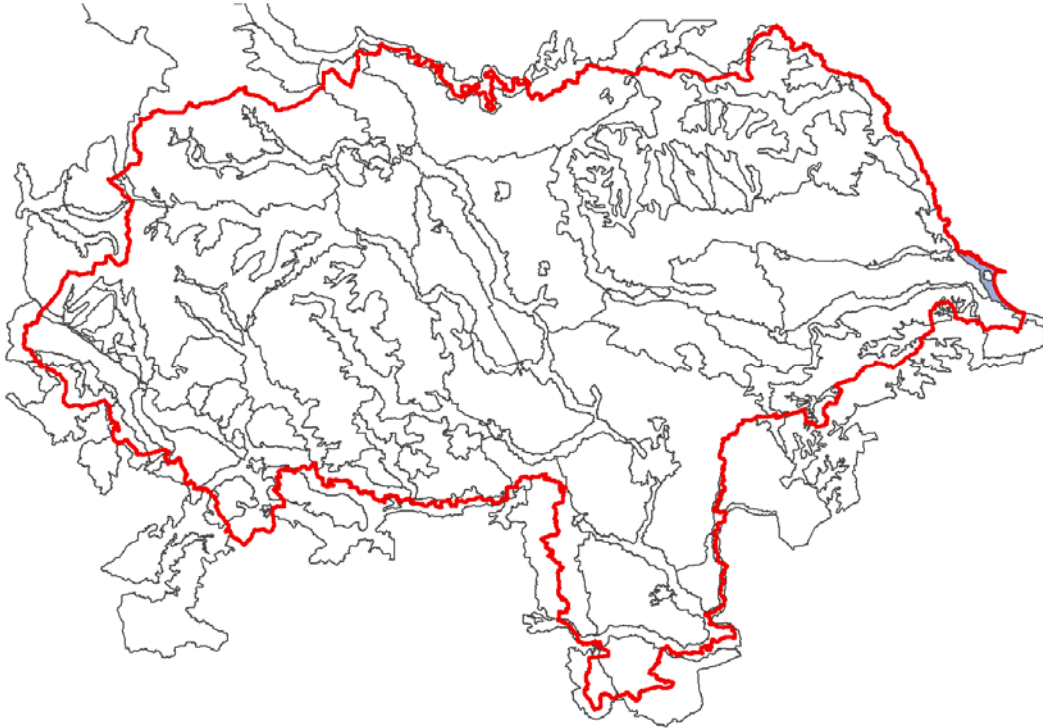
National Character Area

- NCA 25: North Yorkshire Moors and Cleveland Hills
http://www.naturalengland.org.uk/Images/jca25_tcm6-5621.pdf
- NCA 26: Vale of Pickering
http://www.naturalengland.org.uk/Images/jca26_tcm6-5676.pdf

Local Landscape Character Assessments

- North York Moors National Park Landscape Character Assessment (2003)
<http://www.northyorkmoors.org.uk/content.php?nID=372>
- Scarborough Landscape Appraisal (1994)

Soft Coastal Cliffs and Bays (16)



CHARACTERISATION

Key Characteristics

- Soft, sedimentary coastal edge, which results in relatively smooth profiles to cliff edges where present;
- Tourist developments are often prominent features within the bays;
- Open views eastwards across ever-changing seascapes;
- In places, dramatic wave-cut platforms are key features;
- Beaches, seafront and promenade features are key features of parts of the coastal edge;
- Seaside towns containing a range of visitor facilities and large numbers of hotels and guesthouses are situated immediately adjacent to this Landscape Character Type;
- Sense of remoteness and tranquillity varies with the tourist seasons and use of the beaches;

Description

- 5.5.4 The Soft Coastal Cliffs and Bays Landscape Character Type forms the south-eastern coastline of the Study Area to the south of Scarborough and north/south of Filey. Set back from the immediate coastal edge, the landscape has a predominantly agricultural character. To the south of Filey, the presence of the Reighton Sands Holiday Village and residential development at Hunmanby Gap introduce key human elements into the landscape. In addition, the area to the north of Hunmanby Gap Road is almost entirely urbanised. Here, Amtree Park, Primrose Valley Holiday Centre, Primrose Valley and the Filey Golf Course linking with Filey Town all introduce human elements which disturb the overall sense of tranquillity and rural character. The Southern limit of Filey town is clearly demarcated in this coastal area by the steep valley of Martin's Ravine. A number of short streams flow to the coast in valleys which are characteristically well wooded and contrast with adjacent Landscape Character Types. The sweep of Filey Bay provides views of the cliffs within which urban developments are conspicuous. Filey Brigg (headland that has been very heavily eroded on the bay side to leave

a dramatic rock wave-cut platform) is a key coastal landscape feature. The foreshores at Filey, Scarborough and Cayton Bay display shallow sandy beaches which are enclosed by the surrounding cliffs or headlands. There is a strong sense of openness as a result of open, panoramic views across the vast, expansive seascape to the east. Landscapes within this Type are subject to strong visible human influence where they abut seafront buildings at Filey and Scarborough. The visually prominent ruins of a castle also lie on a high headland between the two bays at Scarborough, which is a key feature within views from this Landscape Character Type and contributes to recognisable sense of place.

Definitive Attributes

Geology	<ul style="list-style-type: none"> This Landscape Character Type is covered by superficial geology of Diamicton
Topography & Drainage	<ul style="list-style-type: none"> This low-lying Landscape Character Type (below 20 metres AOD) slopes gently from west to east (the point at which it meets the North Sea)
Land Cover	<ul style="list-style-type: none"> Land cover is predominantly arable fields, set back from the immediate coastal edge, interspersed with small pockets of improved grassland, deciduous woodland and suburban development At the coastline, a series of grassy cliffs and shallow sandy beaches are a key feature
Enclosure / Field Pattern	<ul style="list-style-type: none"> A predominantly historic field pattern adjacent to the coastal edge, comprising irregular fields of planned parliamentary enclosure
Settlement Pattern	<ul style="list-style-type: none"> Easily accessed by the A165 which runs parallel to the coast, a little inland It contains several caravan parks and campsites, together with associated buildings providing services to the leisure developments. These developments tend to be located adjacent to the coast and are reached by access tracks Occasional farms, dispersed throughout the area also tend to be reached by minor roads and access tracks
Visible Historic Features	<ul style="list-style-type: none"> Roman Signal Station, Carr Naze

EVALUATION

Forces for Change

Agricultural Change and Land Management

- Loss of coastal grassland via coastal erosion;
- The threat of coastal erosion may lead to the introduction of coastal defence measures, particularly as this landscape is prone to coastal erosion;
- Decline of hedgerow trees and copses due to neglect, changes in management and absence of new planting;
- Decline in rough pasture, species rich and wet grassland in favour of improved pasture
- Agricultural land is sensitive to change of use and diversification resulting in sub-urbanisation;
- Beach, cliffs, seafront and promenade features vulnerable to visually insensitive coastal defences.

Development and Infrastructure

- Urban fringe land uses dominate around Filey. Golf course developments, holiday villages, caravan sites and urban parks introduce a major human influence on landscape character in the north of this Landscape Character Type;
- Issues associated with urban fringe areas such as fly tipping;

- The coastline, holiday villages, coastal habitats, Filey Brigg and the A165 are vulnerable to continuing processes of coastal erosion;
- Beach, cliffs, seafront and promenade features vulnerable to insensitive coastal defences;
- Urban fringe land uses and tourist developments are vulnerable to declining visitor numbers, lack of management, dereliction or inappropriate redevelopment;
- Views to the sea from the A165 which are sensitive to disruption from potential new developments;
- The Landscape Character Type contains a number of caravan and camping sites which are visually intrusive features in several locations;
- There may be a demand for higher quality timber lodge style holiday accommodation, holiday villages can form prominent and intrusive features within the landscape if they are poorly located. The cumulative effect of development in the coastal region should also be considered as piecemeal development can alter the rural and sparsely settled character;
- Modern expansion of villages or farmsteads on the adjacent flatter cliff top areas which may be unsympathetic to local landscape character.

Climate Change

- It is likely to become increasingly difficult to defend parts of this soft coast against erosion in the future. This is due to geo-morphological processes rather than climate change;
- Engineered coastal defences can introduce alien and artificial elements into coastal landscapes.
- Offshore wind energy developments may have a visual impact on the coast and have other environmental impacts.

Sensitivity to Change Issues

- High visual sensitivity as a result of the strong sense of openness, coupled with open views eastwards across the adjacent seascape; and strong intervisibility with adjacent Landscape Character Types;
- Moderate ecological and landscape sensitivity overall. The Smooth Coastal Edge predominantly encompasses sand habitats which support invertebrate and coastal plant species; however there are few key landscape features, other than groynes. Pockets of deciduous ancient woodland further contribute to ecological diversity.
- Moderate landscape and cultural sensitivity as a result of dramatic views eastwards across an ever-changing seascape and the pattern of arable fields and streams.

GUIDANCE

Guidance for Managing Landscape Change

Physical and Ecological Character

- **Manage** and enhance the range of habitats and features;
- **Encourage** the restoration of dynamic river and coastal processes where possible;
- **Use** semi-natural landcover to enhance landform features, particularly along the skylines and cliffs.
- **Use** semi-natural landcover to enhance landform features, particularly along the higher valley slopes.
- **Conserve** pockets of deciduous (ancient) woodland.
- **Protect** key coastal habitats which support plant and invertebrate species;
- **Protect** natural coastal erosion processes through the maintenance of groynes.

Cultural and Historic Character

- **Protect** the setting of the Roman signal station at Carr Naze.

- **Protect** views to key historic buildings within adjacent Landscape Character Types, such as Scarborough Castle.

Aesthetic and Perceptual Character

- **Seek** opportunities to improve the setting of tourist developments;
- **Seek** opportunities to improve the setting of tourist developments within adjacent Landscape Character Types;
- **Plan** for the improved access to and enjoyment of the coast through developing the new Coastal Access trail in consultation with landowners and key stakeholders, taking into account the special interests and creating a rich experience for visitors.
- **Maintain** public access to enable enjoyment of this landscape and the sense of 'escapism' and 'inspiration' it provides whilst protecting vulnerable habitats, through the network of public footpaths and open access land;
- **Promote** safe access to the coast, where appropriate;
- **Maintain** safe access to the coast through open access land and promote new links to the Coast to Coast path;

Signposts to Further Characterisation Information

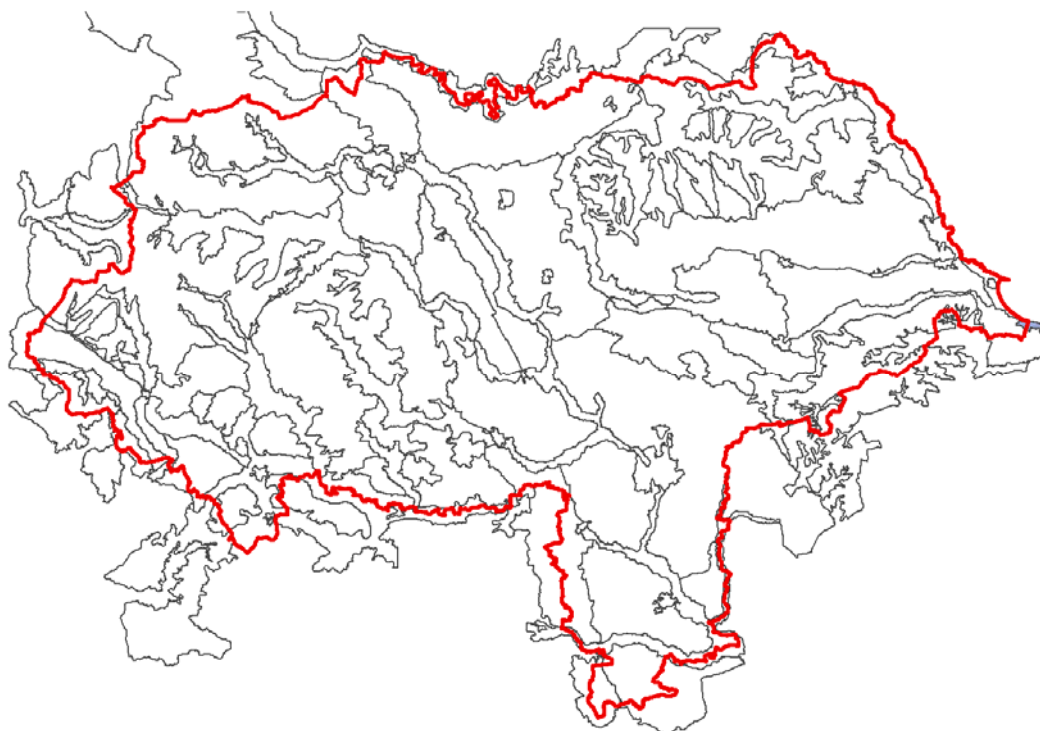
National Character Area

- NCA 26: Vale of Pickering
http://www.naturalengland.org.uk/Images/jca26_tcm6-5676.pdf

Local Landscape Character Assessments

- Scarborough Landscape Character Assessment (1994);

Chalk Headland (17)



CHARACTERISATION

Key Characteristics

- Distinctive low coastal headland which forms a series of chalk cliffs;
- Lightly settled landscape with predominantly agricultural land cover;
- Rich heritage including finds of Neolithic axe heads, Roman earthworks, a Norman chapel and manor house, and World War Two defence structures;
- Open views across an ever-changing seascape to the east;
- Fields are generally delineated by low hedgerows.

Description

The Chalk Headland Landscape Character Type is located on the far eastern tip of the Study Area and extends southeastwards from Speeton in the form of a promontory towards Flamborough Head in the East Riding of Yorkshire. The solid geology of the area is chalk and the landform is rolling. The Speeton Clay at the foot of the chalk is rich in fossils. The land lies above 100m AOD and has a sheer drop on its northern edge at Buckton Cliffs where it meets the sea. Soils are generally free draining due to the permeable chalk bedrock. Land cover is dominated by arable farmland, which overlooks the coast in many places. This Landscape Character Type encompasses an open, large-scale, landscape exposed to the sea with few trees or woodlands. Various WWII coastal fortifications are scattered across the area.

Definitive Attributes

Geology	<ul style="list-style-type: none">• Predominantly chalk bedrock overlain with diamicton superficial deposits
Topography & Drainage	<ul style="list-style-type: none">• Relatively low headland (between 50 metres and 30 metres AOD), which culminates in cliffs at the eastern edge

Land Cover	<ul style="list-style-type: none"> • This Landscape Character Type predominantly comprises arable fields
Enclosure / Field Pattern	<ul style="list-style-type: none"> • Predominantly comprises modern improved arable fields
Settlement Pattern	<ul style="list-style-type: none"> • Large farm units create a pattern of dispersed farmsteads, which are generally accessed by farm tracks • Extensive arable fields and an absence of tree cover result in buildings being prominent features within this Landscape Character Type
Visible Historic Features	<ul style="list-style-type: none"> • World War II coastal fortifications;

EVALUATION

Key Forces for Change

Agricultural Change and Land Management

- Arable production is characteristic of this Landscape Character Type. Increasing use of winter crops is reducing the area of stubble which is having a negative effect on farmland bird populations;
- Over management of hedgerows has produced low, flailed, intermittent hedges of limited value ecologically, visually or functionally.

Development and Infrastructure

- The Introduction of new visually intrusive large agricultural sheds;
- The visual effects of fencing, signs, car parking and traffic;
- Footpath and bridleway erosion can be caused by over-use or miss-use by off road vehicles, motorcycles or mountain bikes. Visitors can cause disturbance to wildlife and livestock which is particularly acute in the nesting and lambing seasons. Dogs in particular can cause disturbance to wildlife;
- Farm diversification can introduce new elements into the landscape which are inconsistent with the present character.

Climate Change

- The hard chalk cliffs tend to erode slowly and there is little perceived threat to property;
- Offshore wind energy developments may have a visual impact on the coast and have other environmental impacts.

Sensitivity to Change Issues

- High visual sensitivity as a result of open views across the sea to the east and also strong intervisibility with adjacent Landscape Character Types;
- High ecological sensitivity, resulting from the numerous habitats of geological and botanical interest along the cliffs, which provide key nesting sites for birds. The Chalk Headland is designated as an SPA (Flamborough Head & Bempton Cliffs) and is adjacent to Flamborough Head SAC;
- High landscape and cultural sensitivity as a result of the strong pattern of chalk cliffs and associated rich heritage of archaeological evidence (Neolithic finds), Roman earthworks, a Norman chapel and manor house, and World War Two defence structures.

GUIDANCE

Guidance for Managing Landscape Change

Physical and Ecological Character

- **Protect** the open, large-scale, planned simplicity of the agricultural landscape;
- **Select** arable options, such as the creation of headlands to support rare arable weeds and farmland birds, and provide a strong habitat network;
- **Plan** for a landscape-scale expansion of semi-natural chalk grassland through extending and linking remnant areas of chalk grassland on the cliff tops and managing through extensive grazing.

Cultural and Historic Character

- **Protect** key historic landscape features such as Roman earthworks, a Norman chapel and manor house, and World War Two defence structures (and their setting);
- **Seek** reversion of arable to grassland where current land management threatens the integrity of earthworks and below ground archaeology;
- **Consider** the cumulative visual effect of new development along the coastline and if development is necessary, encourage designs which are sensitive to the existing settlement pattern;
- **Maintain** the dispersed settlement pattern and encourage the use of traditional building materials to retain the connection between the local vernacular and underlying geology.

Aesthetic and Perceptual Character

- **Maintain** panoramic views across this open landscape;
- **Encourage** access to and interpretation of the historic environment where possible;
- **Manage** and **enhance** recreation and access provision by seeking additional routes to enhance the rights of way network and providing links to Open Access Land.

Signposts to Further Characterisation Information

National Character Area

- NCA 27: North Yorkshire Wolds.
http://www.naturalengland.org.uk/Images/jca27_tcm6-5685.pdf

Local Landscape Character Assessments

- Scarborough Landscape Character Assessment (1994)

Adjacent Landscape Character Assessments

- East Riding Landscape Character Assessment (2005)
<http://www.eastriding.gov.uk/corp-docs/forwardplanning/html/lca.html>

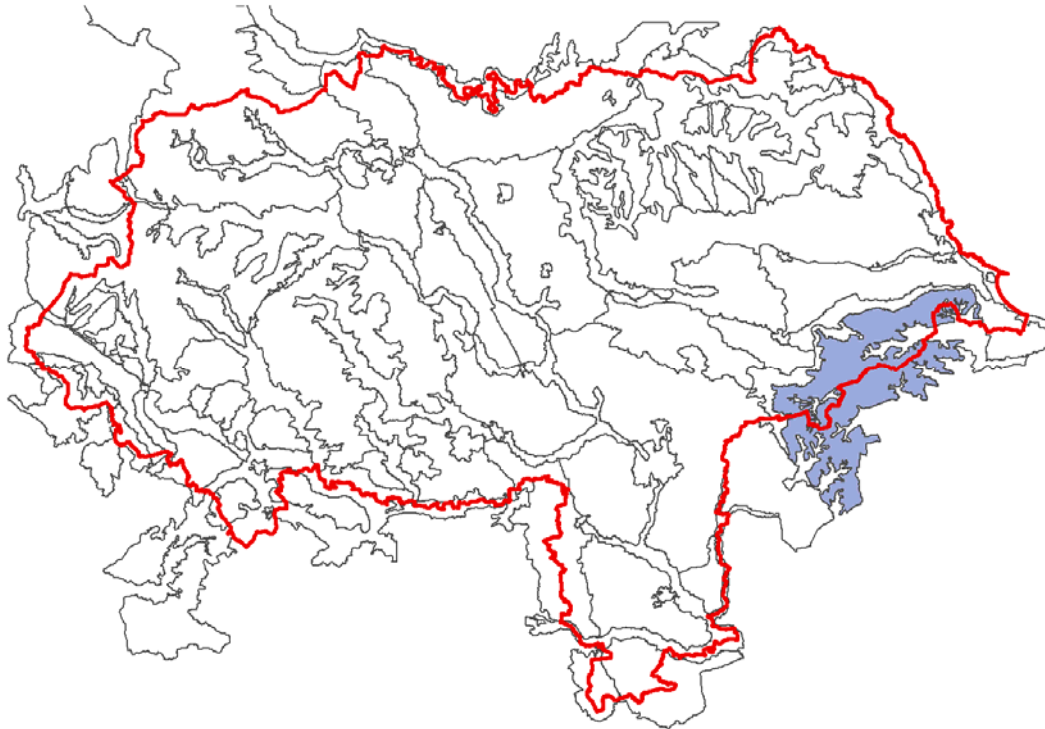
5.6 Chalk Landscapes

5.6.1 The Chalk Landscapes are situated in the southeast of the Study Area. They extend from the southern edge of Norton on Derwent in the northwest, to Driffield in the south (outside the Study Area).

5.6.2 The following Landscape Character Types form Chalk Landscapes Primary Landscape Unit:

- Chalk Wolds (18)
- Chalk Foothills (19)
- Broad Chalk Valley (20)
- Narrow Chalk Valley (21)

Chalk Wolds (18)



CHARACTERISATION

Key Characteristics

- A series of prominent chalk hills which rise from surrounding lower landscapes and have a predominantly open character;
- Dispersed, nucleated farmsteads are a key feature of settlement pattern;
- Fertile soil supports a diverse pattern of arable farming;
- Winterbourne streams are a key feature, often lined with managed wet grassland;
- High concentration of historic sites, reflecting prehistoric habitation on the plateau;
- Visible evidence of medieval villages sites, medieval cultivation terraces and linear earthworks;
- Historic settlements constructed predominantly of brick or chalk with pantile roofs, often with ponds as central features;
- Parkland landscapes, estate villages and estate woodlands are a feature in places;
- Overall strong sense of tranquillity, remoteness and associated dark night skies.

Description

The Chalk Wolds Landscape Character Type is located in the far south-eastern part of the Study Area, to the south of the Vale of Pickering. It encompasses a large-scale elevated chalk landscape of rounded, rolling hills and plateaux that are dissected by occasional deep valleys. The open character of the hills contrasts with the enclosed character of the valleys. The underlying solid geology of the area is chalk laid down during the Cretaceous period. Soils are free draining due to sloping landform and the permeable chalk bedrock. There are no significant watercourses in the area due to the permeable nature of the bedrock and the sloping land. Village ponds are present in most villages. Fertile, chalky soils support mainly arable farming. Scattered small shelterbelt plantations are features, but woodland cover is sparse overall except around Sledmere Estate and Park. There is evidence of early human activity

dating back to prehistoric times on the Wolds, including visible evidence of medieval village sites, medieval cultivation terraces and linear earthworks. This is a generally lightly settled landscape, probably at least partly due to the lack of water courses in the area. There are occasional villages, mostly in sheltered locations and large scattered farmsteads on high ground. Estate and parkland landscapes with large country houses, estate villages and estate woodlands are key landscape features in places. Panoramic open views can be gained from the tops of hills and plateaux. There is also a strong sense of remoteness and tranquillity throughout much of the landscape, with associated dark night skies.

Definitive Attributes

Geology	<ul style="list-style-type: none"> Entirely underlain by chalk bedrock
Topography & Drainage	<ul style="list-style-type: none"> Generally, topography slopes downwards from west to east, towards the Broad Chalk Valley Landscape Character Type The highest hills are in the southwest
Land Cover	<ul style="list-style-type: none"> A patchwork of arable and improved grassland fields, interspersed with small pockets of deciduous woodland Chalk grassland
Enclosure / Field Pattern	<ul style="list-style-type: none"> The lower parts of this Landscape Character Type predominantly encompass modern improved fields, whilst the higher wolds have a historic field pattern of planned, large-scale parliamentary enclosure Pockets of species-rich chalk grasslands and road verges Small quarries are also landscape features
Settlement Pattern	<ul style="list-style-type: none"> A pattern of small scale, sparse settlement extends throughout this Landscape Character Type There are generally few villages. Where present, villages are small and compact, often having developed around crossroads Farm houses and adjacent farm buildings were built by prosperous farmers during the 18th and 19th Century, usually of brick, with pantile or slate roofs. These nucleated farmsteads are often located on high ground in exposed locations and many are surrounded by shelter belts. The farms tend to be widely dispersed
Visible Historic Features	<ul style="list-style-type: none"> Romano British Settlement at Foxholes Duggleby Howe round barrow, interrupted ditch enclosure and ring ditches Wharram Percy deserted medieval village Towthorpe Medieval settlement Thirkleby medieval settlement adjacent to Thirkleby Manor Hanging Grimston medieval settlement adjacent to Mount Pleasant Farm Mount Ferrant motte and bailey castle Sledmere House Historic park and garden

EVALUATION

Forces for Change

Agricultural Change and Land Management

- Hedges and hedgerow trees still remain an important feature of the landscape, but in some places, especially on the high wolds, they are over-managed, becoming low cut and gappy, while elsewhere they are suffering from lack of appropriate management;
- Arable production is characteristic of this area. Increasing use of winter crops is reducing the area of stubble which is having a negative effect on farmland bird populations;
- Decline in management of parkland within the area.

Development and Infrastructure

- Introduction of new visually intrusive large agricultural sheds;

- Introduction of telecommunication masts, overhead wires or other tall structures such as lighting columns.

Mineral Extraction

- There has been pressure for extension of chalk quarries;
- Extraction sites change the land use of the area, create artificial landforms and are often visually prominent due to the colour of the exposed rock. The long term effect of extraction sites on the landscape and environment should be considered. It is, however possible to restore sites to agricultural use or create nature reserves or recreation facilities;
- Increased volumes of traffic have the potential to introduce noise and congestion.

Sensitivity to Change Issues

- High visual sensitivity as a result of the Panoramic open views can be gained from the tops of hills and plateaux, predominantly open character; and strong intervisibility with adjacent Landscape Character Types (particularly the Chalk Foothills, Broad and Narrow Chalk Valleys);
- High ecological sensitivity as a result of the swathes of species rich chalk grassland which are a key habitat and small remnant quarries, several of which are designated as SSSIs;
- High landscape and cultural sensitivity as a result of the predominantly intact landscape pattern of parkland landscapes, interspersed with arable fields and a sparse settlement pattern of historic villages. This is coupled with several deserted medieval villages, historic houses and archaeological sites.

GUIDANCE

Guidance for Managing Landscape Change

Physical and Ecological Character

- **Protect** the open, large-scale, planned simplicity of the agricultural landscape;
- **Select** arable options, such as the creation of headlands to support rare arable weeds and farmland birds, and provide a strong habitat network;
- **Manage** and **enhance** semi-natural woodland (within historic parkland) and arable wildlife habitats, to provide a strong habitat network and build resilience to climate change;
- **Extend** and link remnant areas of chalk grassland on the steeper slopes and plateau tops to plan for a landscape-scale expansion of semi-natural chalk grassland;
- **Restore** and **enhance** the riverside wetland habitats, including retaining areas of extensively managed wet grassland across the floor of winterbourne channels.

Cultural and Historic Character

- **Protect** key historic landscape features including round barrows, deserted medieval villages and historic parks and gardens;
- **Protect** the setting of Sledmore historic park and garden;
- **Seek** reversion of arable to grassland where current land management threatens the integrity of earthworks and below ground archaeology.

Aesthetic and Perceptual Character

- **Maintain** panoramic views across this open landscape;
- **Encourage** access to and interpretation of the historic environment where possible;
- **Protect** the overall sense of tranquillity and remoteness;

- **Minimise** lighting and avoid light spill, particularly at the core the Chalk Wolds;
- **Manage** and **enhance** recreation and access provision by seeking additional routes to enhance the rights of way network and providing links to Open Access Land.

Signposts to Further Characterisation Information

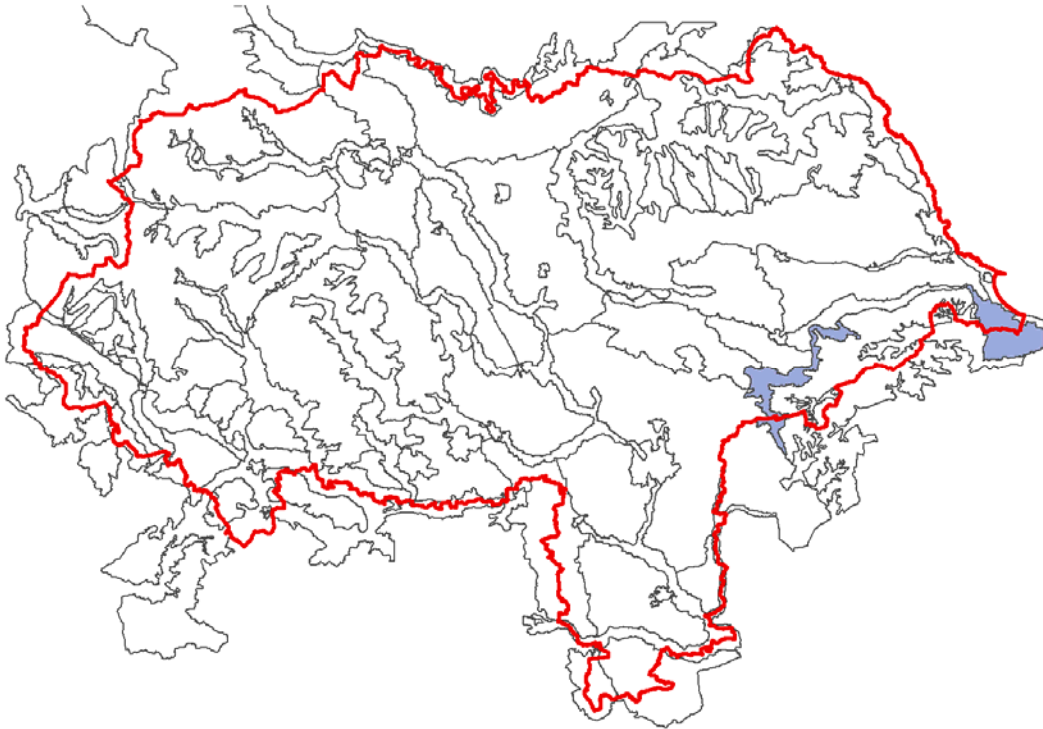
National Character Area

- NCA 27: North Yorkshire Wolds
http://www.naturalengland.org.uk/Images/jca27_tcm6-5685.pdf

Adjacent Landscape Character Assessments

- East Riding Landscape Character Assessment (2005)
<http://www.eastriding.gov.uk/corp-docs/forwardplanning/html/lca.html>

Chalk Foothills (19)



CHARACTERISATION

Key Characteristics

- Landscape pattern of chalk grassland and arable fields with numerous small blocks of deciduous woodland;
- Swathes of species rich chalk grassland;
- Steep, clearly-defined and dramatic scarp slopes characterised by a general absence of development;
- Long, open views from the escarpment across surrounding lowland landscapes;
- Lightly settled landscape;
- Numerous prehistoric earthworks including burial mounds;
- Deserted medieval villages scattered across eastern foothills.

Description

- 5.6.3 The chalk foothills encircle the Yorkshire Wolds, which straddle the county boundary in the far south-eastern part of the Study Area. The northern part of this extensive feature rises up from the Vale of Pickering and the coastal plain south of Filey. The foothills overlooking the Vale of Pickering form a distinctive escarpment between 50m AOD and 150m AOD. The escarpment is characterised by a pattern of chalk grassland and arable fields with numerous small blocks of deciduous woodland. Long views may be obtained from the escarpment. The steep, clearly-defined and dramatic nature of the scarp and the lack of development combine to produce a distinctive character. A series of steep grass slopes with scrub are situated to the south of Speeton and these extend eastwards to meet the vertical chalk coastal cliff of Flamborough Headland.

Definitive Attributes

Geology	<ul style="list-style-type: none"> In this east, this Landscape Character Type is underlain in its entirety by chalk bedrock geology, whilst to the west, mudstone, siltstone and sandstone are more prevalent Small pockets of sand and gravel superficial geology are also present
Topography & Drainage	<ul style="list-style-type: none"> This Landscape Character Type forms an edge to the adjacent higher Chalk Wolds and slopes downwards from approximately 70 to 20 metres AOD
Land Cover	<ul style="list-style-type: none"> Predominantly arable farmland with pockets of improved grassland and deciduous woodland
Enclosure / Field Pattern	<ul style="list-style-type: none"> A patchwork of modern fields, piecemeal enclosure (medium sized semi-irregular fields) and parliamentary enclosure (large, regular fields defined by straight ditches)
Settlement Pattern	<ul style="list-style-type: none"> The chalk foothills are generally farmed and many slopes remain largely undeveloped Villages tend to be located at the foot of the hill where it rises from the plain This Landscape Character Type does not contain any large settlements A series of relatively isolated farmsteads are scattered throughout the Type
Visible Historic Features	<ul style="list-style-type: none"> Mount Ferrant motte and bailey castle Parkland around country houses at Birdsall, Settrington, Place Newton Kirkham Priory

EVALUATION

Forces for Change

Agricultural Change and Land Management

- Hedges and hedgerow trees are an important feature of the landscape, but in some places they are over-managed, becoming low cut and gappy, while elsewhere they are suffering from lack of appropriate management. Grants to restore or maintain hedgerows only cover a small proportion of hedgerows;
- Decline in woodland management;
- Arable production is characteristic of this area. Increasing use of winter crops is reducing the area of stubble which is having a negative effect on farmland bird populations.

Development and Infrastructure

- Insensitive development and alterations in villages altering vernacular character and scattered settlement pattern;
- Introduction of new visually intrusive large agricultural sheds;
- Introduction of telecommunication masts, overhead wires or other tall structures such as lighting columns.

Climate Change

- Climate change may impact on the species within semi-natural habitats, the habitat ranges of many species will move northwards or uphill and this will have implications for the species composition of nature reserves;
- Water shortages may have a pronounced effect on the agriculture of the Wolds due to the underlying geology.

Mineral Extraction

- There has been pressure for extension of chalk quarries;

- Extraction sites change the land use of the area, create artificial landforms and are often visually prominent due to the colour of the exposed rock. The long term effect of extraction sites on the landscape and environment should be considered as they have the potential to degrade the land. It is however possible to restore sites to agricultural use or create nature reserves or recreation facilities;
- Additional Lorries and traffic associated with quarrying have the potential to introduce noise and congestion in rural areas.

Sensitivity to Change Issues

- High visual sensitivity as a result of the long views that can be gained from the escarpment and strong intervisibility with the Chalk Wolds, Broad and Narrow Chalk Valleys;
- High ecological sensitivity as a result of the swathes of species rich chalk grassland which are a key habitat and numerous small patches of semi-natural ancient woodland;
- High landscape and cultural sensitivity as a result of the striking landscape pattern of the chalk escarpment/foothills and the scattered settlement coupled with pockets of parkland around country houses at Birdsall, Settrington and Place Newton.

GUIDANCE

Guidance for Managing Landscape Change

Physical and Ecological Character

- **Protect** the open, large-scale, planned simplicity of the agricultural landscape;
- **Ensure** that future land cover continues to reveal the distinctive chalk topography of the escarpment;
- **Maintain** the scattered settlement pattern and lightly settled character ;
- **Ensure** the use of traditional building materials to retain the connection between the local vernacular and underlying geology;
- **Select** arable options, such as the creation of headlands to support rare arable weeds and farmland birds, and provide a strong habitat network;
- **Manage** and **enhance** semi-natural woodland) and arable wildlife habitats, to provide a strong habitat network and build resilience to climate change;
- **Extend** and link remnant areas of chalk grassland on the steeper slopes and escarpments to plan for a landscape-scale expansion of semi-natural chalk grassland;
- **Extend** the network of managed semi-natural woodlands and create new woodlands (avoiding areas where they might significantly break the skyline or hinder the creation of chalk grassland).

Cultural and Historic Character

- **Protect** key historic landscape features including country houses at Birdsall, Settrington, Place Newton, Kirkham Priory and Mouny Ferrant motte and bailey castle; and their settings;
- **Seek** reversion of arable to grassland where current land management threatens the integrity of earthworks and below ground archaeology.

Aesthetic and Perceptual Character

- **Maintain** long distance views from the Chalk Foothills to adjacent Landscape Character Types;
- **Encourage** access to and interpretation of the historic environment where possible;

- **Manage** and **enhance** recreation and access provision by seeking additional routes to enhance the rights of way network and providing links to Open Access Land.

Signposts to Further Characterisation Information

National Character Area

- NCA 27: North Yorkshire Wolds
http://www.naturalengland.org.uk/Images/jca27_tcm6-5685.pdf

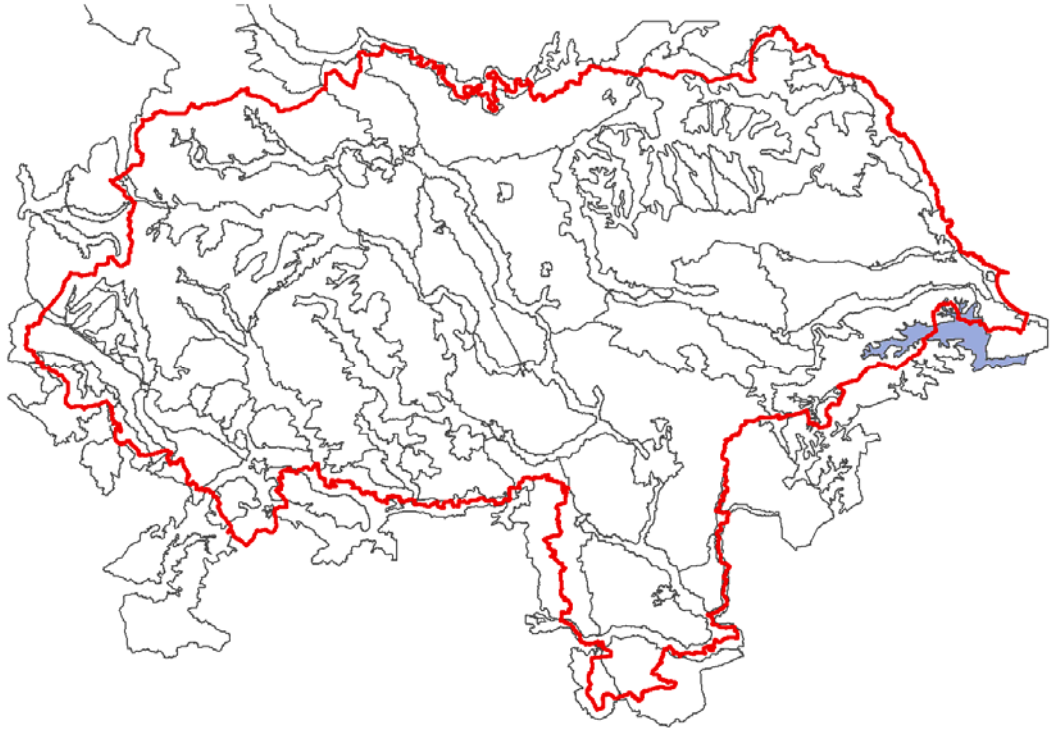
Local Landscape Character Assessments

- Scarborough Landscape Character Assessment (1994)

Adjacent Landscape Character Assessments

- East Riding Landscape Character Assessment (2005)
<http://www.eastriding.gov.uk/corp-docs/forwardplanning/html/lca.html>

Broad Chalk Valley (20)



CHARACTERISATION

Key Characteristics

- Lightly settled landscape with a pattern of linear settlements largely contained within the valley floor and generally undeveloped valley sides;
- Land cover is predominantly arable, comprising a patchwork of fields which are lined with hedgerows;
- A combination of large-scale modern fields and large fields of parliamentary enclosure origin;
- Network of minor roads along the valley floor and ascending the valley sides;
- Several historic features including medieval settlements and manorial sites.

Description

The Broad Chalk Valley Landscape Character Type passes along the south-eastern edge of the Study Area before heading eastwards towards Bridlington in the East Riding of Yorkshire. It encompasses a broad valley landscape (often known as the Great Wolds Valley) that lies between 50m and 100m AOD. The underlying solid geology is chalk, laid down in the Cretaceous period. Alluvium covers the lower parts of the valley and a watercourse passes along part of the valley floor (known as the Gipsy Race). Land cover is dominated by arable agriculture. Large rectilinear arable fields are defined by hedgerows on the valley floor and sides. Woodland cover is sparse, although some trees are located on the settlement edges and alongside the watercourse. Occasional villages nestle in the valley, linked by a minor road along the valley bottom. Minor roads and tracks ascend the valley sides to access farmsteads at exposed locations on high ground above the valley. Several sites of historic interest are dotted throughout the landscape.

Definitive Attributes

Geology	<ul style="list-style-type: none"> The bedrock of the valley sides is chalk The river valley at the centre of this Type is overlain by Superficial deposits of clay, silt, sand and gravel
Topography & Drainage	<ul style="list-style-type: none"> Broad valley which flows from west to east and encompasses the river corridor at its centre Valley sides slope downwards from surrounding higher Chalk Wolds to the valley floor
Land Cover	<ul style="list-style-type: none"> Predominantly arable farmland with small patches of improved grassland, inland bare ground and fen, marsh and swamp
Enclosure / Field Pattern	<ul style="list-style-type: none"> A combination of large-scale modern fields and large fields of parliamentary enclosure origin
Settlement Pattern	<ul style="list-style-type: none"> A single road follows the valley floor linking a number of small villages which have developed along the road and are contained within the valley floor Valley slopes are largely undeveloped as farms are located on the adjacent Chalk Wolds There is a strong linear pattern to the road network with side roads and tracks running straight up the valley sides perpendicular to the road in the valley floor
Visible Historic Features	<ul style="list-style-type: none"> Thirkleby medieval settlement adjacent to Thirkleby Manor Manorial site and church at Weaverthorpe – earthworks

EVALUATION

Forces for Change

Agricultural Change and Land Management

- Hedges are an important feature of the landscape, but in some places they are over-managed, becoming low cut and gappy, while elsewhere they are suffering from lack of appropriate management.
- Arable production is characteristic of this area. Increasing use of winter crops is reducing the area of stubble which is having a negative effect on farmland bird populations;
- Pollution from agricultural runoff.

Development and Infrastructure

- Insensitive development and alterations in villages altering vernacular character and scattered, linear settlement pattern;
- Introduction of new visually intrusive large agricultural sheds;
- Introduction of telecommunication masts, overhead wires or other tall structures such as lighting columns.

Climate Change

- Climate change may impact on the species within semi-natural habitats, the habitat ranges of many species will move northwards or uphill and this will have implications for the species composition of nature reserves;
- Water shortages may have a pronounced effect on the agriculture of the Broad Chalk Valley due to the underlying geology.

Sensitivity to Change Issues

- Moderate visual sensitivity overall. There is strong intervisibility with the Chalk Wolds and Chalk Foothills from the higher valley sides, however views within the valley bottom are contained by topography of the valley sides;

- Moderate ecological sensitivity as a result of the swathes of species rich chalk grassland which are a key habitat;
- High landscape and cultural sensitivity as a result of the predominantly rural character and pattern of small villages which have developed along the road corridors within the valley floor.

GUIDANCE

Guidance for Managing Landscape Change

Physical and Ecological Character

- **Ensure** that future land cover continues to reveal the distinctive chalk topography of the valley;
- **Maintain** the linear settlement pattern of villages along the road corridor;
- **Ensure** the use of traditional building materials to retain the connection between the local vernacular and underlying geology;
- **Select** arable options, such as the creation of headlands to support rare arable weeds and farmland birds, and provide a strong habitat network;
- **Extend** and link remnant areas of chalk grassland on the steeper slopes and escarpments to plan for a landscape-scale expansion of semi-natural chalk grassland;
- **Manage** and **enhance** the unique chalk water environment by restoring and enhancing riverside wetland habitats.

Cultural and Historic Character

- **Protect** key historic landscape features including Thirkleby medieval settlement adjacent to Thirkleby Manor and the manorial site and church at Weavertorpe;
- **Seek** reversion of arable to grassland where current land management threatens the integrity of earthworks and below ground archaeology.

Aesthetic and Perceptual Character

- **Maintain** long distance views to the Chalk Foothills and Chalk Wolds from the higher valley slopes;
- **Encourage** access to and interpretation of the historic environment where possible;
- **Manage** and **enhance** recreation and access provision by seeking additional routes to enhance the rights of way network and providing links to Open Access Land.

Signposts to Further Characterisation Information

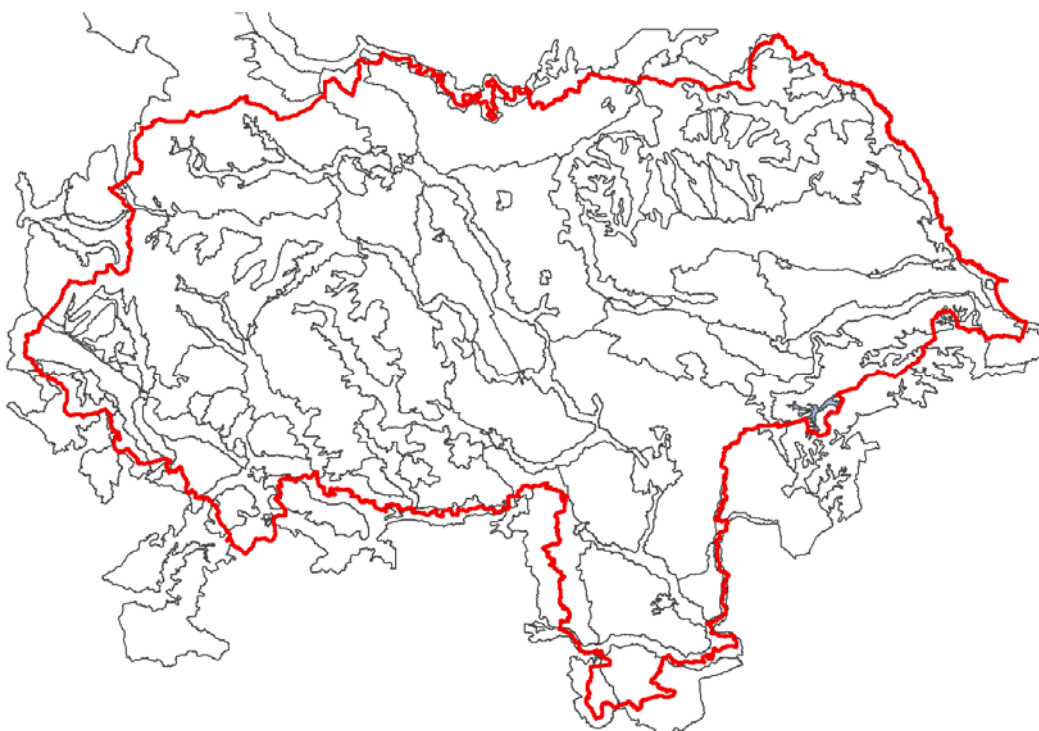
National Character Area

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Adjacent Landscape Character Assessments

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<http://www.eastriding.gov.uk/corp-docs/forwardplanning/html/lca.html>

Narrow Chalk Valley (21)



CHARACTERISATION

Key Characteristics

- Largely undeveloped, narrow chalk valleys;
- An intricate patchwork of species-rich chalk grassland and pastoral sheep farming;
- Swathes of semi-natural woodland create a sense of enclosure;
- General absence of development;
- Historic villages such as Thixendale constructed out of red brick with pantile or slate roofs;
- Predominantly rural character and associated relatively strong sense of tranquillity.

Description

- 5.6.4 The Narrow Chalk Valley Landscape Character Type is situated in the southeast of the Study Area and continues to the south of the Study Area. It encompasses a series of relatively narrow, steep chalk valleys, which support a diverse patchwork of species-rich chalk grassland and pastoral sheep farming. Fields are often small to medium-scale and are interspersed with small pockets of deciduous woodland which provide a localised sense of enclosure. Settlement pattern is generally dispersed and small-scale, comprising a mixture of dispersed hamlets and small-scale villages such as Thixendale. There is strong intervisibility with the adjacent Chalk Wolds (which this Landscape Character Type cuts through), with views often dominated by a backdrop of Chalk Wolds and Foothills.

Definitive Attributes

Geology	<ul style="list-style-type: none">• Entirely underlain by chalk bedrock, other than within the river valleys, which contain superficial deposits of clay, silt, sand and gravel
Topography & Drainage	<ul style="list-style-type: none">• Narrow, relatively steeply sloping valleys which flow from southwest to northeast, from higher surrounding Chalk Wolds (at approximately 80 metres AOD) to the lower valley floor (at approximately 20 metres AOD);

	<ul style="list-style-type: none"> • A number of relatively narrow chalk streams flow through the valleys.
Land Cover	<ul style="list-style-type: none"> • Encompasses a patchwork of arable and improved grassland fields, interspersed with small pockets of deciduous woodland • Chalk grassland
Enclosure / Field Pattern	<ul style="list-style-type: none"> • In the south and northeast, this Landscape Character Type is covered by a patchwork of large-scale, modern fields which have suffered boundary loss • The western side of this Type has a historic field pattern encompassing medium sized fields of parliamentary enclosure origin
Settlement Pattern	<ul style="list-style-type: none"> • Settlement is limited to a small hamlet located in the base of the valley and the occasional farm or manor house also located in the valley bottom • The steep topography and lack of water has largely prevented development within these valleys
Visible Historic Features	<ul style="list-style-type: none"> • Cultivation terraces and earthworks on steep valley sides.

Key Forces for Change

Agricultural Change and Land Management

- Unimproved or semi-improved chalk grassland in steep sided dry valleys is vulnerable to lack of management leading to dominance by rank grasses and scrub invasion or to agricultural improvement. Overstocking can cause nutrient enrichment. Significant areas of calcareous grassland are managed under Environmental Stewardship Agreements;
- Hedges and hedgerow trees are an important feature of the landscape, but in some places, they are over-managed, becoming low cut and gappy.

Development and Infrastructure

- Insensitive development and alterations in historic villages affecting the small-scale, predominantly vernacular settlement pattern;
- Introduction of new visually intrusive large agricultural sheds;
- Introduction of telecommunication masts, overhead wires or other tall structures such as lighting columns which could be visually prominent.

Climate Change

- Climate change may impact on the species within semi-natural habitats, the habitat ranges of many species may move northwards or uphill and this could have implications for the species composition of nature reserves.

Mineral Extraction

- There has been pressure for extension of chalk quarries in the past;
- Extraction sites change the land use of the area, create artificial landforms and are often visually prominent due to the colour of the exposed rock. The long term effect of extraction sites on the landscape and environment should be considered as they have the potential to degrade the land. It is however possible to restore sites to agricultural use or create nature reserves or recreation facilities;
- Additional lorries and traffic associated with quarrying have the potential to introduce noise and congestion in rural areas;
- Quarries may threaten species rich grassland in this area.

Sensitivity to Change Issues

- High visual sensitivity as a result of the strong intervisibility with the Chalk Wolds and Chalk Foothills Landscape Character Types;

- High ecological sensitivity as a result of swathes of broadleaf woodland (which provide a key habitat and are designated as part of the Millington wood and pastures SSSI), small pockets of semi-natural ancient resulting from the predominantly intact landscape and settlement pattern, predominantly rural character and strong sense of tranquillity throughout.

GUIDANCE

Guidance for Managing Landscape Change

Physical and Ecological Character

- **Ensure** that future land cover continues to reveal the distinctive chalk topography of the valleys;
- **Maintain** the scattered settlement pattern and predominantly rural character;
- **Ensure** the use of traditional building materials to retain the connection between the local vernacular and underlying geology;
- **Select** arable options, such as the creation of headlands to support rare arable weeds and farmland birds, and provide a strong habitat network;
- **Extend** and link remnant areas of chalk grassland on the steeper slopes to plan for a landscape-scale expansion of semi-natural chalk grassland;
- **Manage** and **enhance** the unique chalk water environment by restoring and enhancing riverside wetland habitats.

Cultural and Historic Character

- **Protect** key historic landscape features such as cultivation terraces and earthworks on steep valley sides.
- **Seek** reversion of arable to grassland where current land management threatens the integrity of earthworks and below ground archaeology.

Aesthetic and Perceptual Character

- **Maintain** open views to the Chalk Wolds and Chalk Foothills from the higher valley slopes;
- **Encourage** access to and interpretation of the historic environment where possible;
- **Manage** and **enhance** recreation and access provision by seeking additional routes to enhance the rights of way network and providing links to Open Access Land.

Signposts to Further Characterisation Information

National Character Area

- NCA 27: North Yorkshire Wolds
http://www.naturalengland.org.uk/Images/jca27_tcm6-5685.pdf

Adjacent Landscape Character Assessments

- East Riding Landscape Character Assessment (2005)
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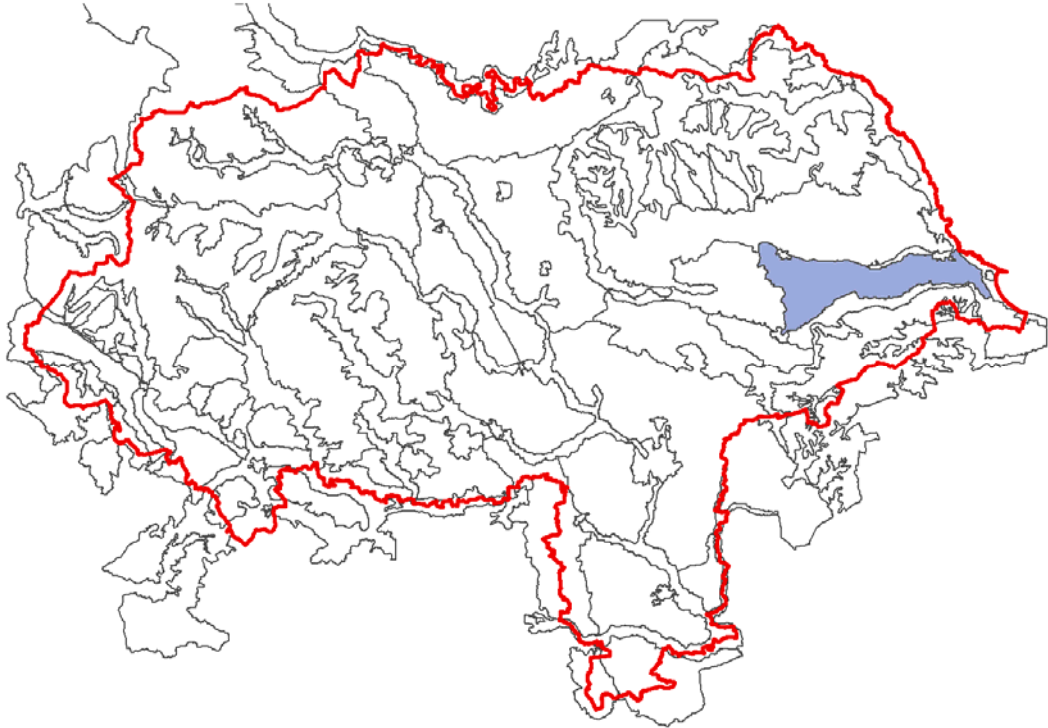
5.7 Farmed Lowland and Valley Landscapes

5.7.1 The Farmed Lowland and Valley Landscapes form a large swathe which runs north-south across the centre of the Study Area. They also include the Vale of Pickering to the east and smaller pockets of Undulating Lowland Farmland to the southwest of Harrogate and north of the Forest of Bowland AONB.

5.7.2 The following Landscape Character Types form the Farmed Lowland and Valley Landscapes Primary Landscape Unit:

- Open Carr Vale Farmland (22)
- Levels Farmland (23)
- River Floodplain (24)
- Settled Vale Farmland (25)
- Enclosed Vale Farmland (26)
- Vale Farmland with Dispersed Settlements (27)
- Vale Farmland with Plantation Woodland and Heathland (28)
- Undulating Lowland Farmland (29)
- Sand and Gravel Vale Fringe (30)
- Settled, Industrial Valleys (31)
- Drumlin Valleys (32)

Open Carr Vale Farmland (22)



CHARACTERISATION

Key Characteristics

- Predominantly flat, arable farmland which encompasses medium to large scale rectangular fields;
- The River Derwent is a key feature, the course of which, gently meanders east-west through this Landscape Character Type;
- Underlain by predominantly peat soils;
- Fields are delineated by a network of drainage ditches and dykes which are often colonised by reeds and willows;
- Tree cover is relatively sparse, with few woodlands, other than isolated small plantations, resulting in a strong sense of openness;
- Historically this landscape would have dominated by a patchwork of carrs, ings, moors and marshes. The legacy of this is apparent within place names;
- Human influence is apparent, in the form of straightened drainage channels, cuts and ditches;
- Settlement pattern comprises isolated, scattered farmsteads.

Description

5.7.3 The Open Carr Vale Farmland is predominantly flat landscape at the foot of the Limestone Foothills and Valleys, which provide a sense of enclosure to the north. It is underlain by glacialacustrine clays and sands which were deposited by the former Lake Pickering which occupied much of the area during, and subsequent to, the last glaciation. Following the last glaciation, Lake Pickering drained away, leaving behind a complex of rivers and marshes. Names in the area bear testimony to this, with frequent mention of carrs, ings, moors and marshes. These features have now all been drained, resulting in landscape that is crossed by a network of canalised water courses, cuts and drainage dykes which regulate the water table. A

patchwork of arable and pastoral fields prevails. This landscape is crossed by network of relatively straight roads and wide verges, with all managed, predominantly thorn hedges. Settlement pattern is scattered, comprising scattered, relatively isolated farmsteads.

Definitive Attributes

Geology	<ul style="list-style-type: none"> • Small pockets of sandstone bedrock geology underlie this Landscape Character Type • Superficial geology (which covers this Landscape Character Type) comprises alternating bands of clay ,silt and sand and gravel
Topography & Drainage	<ul style="list-style-type: none"> • Predominantly flat and lies below 10 metres AOD; • Crossed by several rivers running west-east
Land Cover	<ul style="list-style-type: none"> • Covered by a patchwork of pastoral and arable fields; • Pockets of suburban land and relatively large areas of deciduous woodland are also scattered throughout this Landscape Character Type • Patches of remaining wetlands
Enclosure / Field Pattern	<ul style="list-style-type: none"> • A large proportion of the landscape within this Landscape Character Type is covered by large-scale modern improved fields which have suffered boundary loss • Situated amongst the modern fields there are also a couple of areas of planned parliamentary enclosure consisting of medium sized semi-irregular enclosure
Settlement Pattern	<ul style="list-style-type: none"> • Scattered pattern of dispersed farmsteads.
Visible Historic Features	<ul style="list-style-type: none"> • Wykeham Cistercian priory • Site of a medieval manor house to the west of Seamer • Yedingham Priory

EVALUATION

Forces for Change

Agricultural Change and Land Management

- Lowering of the water table in the floodplain as a result both of drainage and pumping to abstract water for irrigation, has led to loss of habitats and old water courses, and dried out peats, allowing wind erosion and damage to historic features. Warping drains have also been filled in and ploughed over;
- Agricultural intensification has led to loss of hedges, trees and small woods, resulting in a predominantly open character;
- Changes in agricultural practices threaten alluvial flood meadows (known as lngs) which are important for their wetland vegetation and as habitats for wintering and migrating birds;
- Ongoing management of ditches is important in this landscape;
- Drainage is causing the shrinkage of peat in places, resulting in the exposure of tree routes;
- Drainage and deep ploughing may be causing some damage to archaeological sites.

Development and Infrastructure

- Neglect of historical artefacts relating to drainage and pumping of the landscape;
- Pressure on farm businesses is likely to lead to changes in land management and diversification of farm businesses, which may lead to the creation of new landscape features, such as fishing ponds;
- Development pressures for road building and housing are a potential source of visual intrusion in the open landscape.

Climate Change

- This area is very low lying and is therefore vulnerable to flooding. Farmers could consider planting flood tolerant crops within flood plains to avoid losses;
- A range of options for river management are available. In some cases it will be most cost effective to maintain existing defences, in other cases it may be necessary to create new features such as wetlands and detention basins to manage flood water and protect urban areas such as Selby.

Mineral Extraction

- Pressure for the extraction of sand and gravels.

Sensitivity to Change Issues

- High visual sensitivity as a result of the predominantly open character and flat landform, which facilitates long distance open views across the landscape and promotes strong intervisibility with adjacent Landscape Character Types;
- Low ecological sensitivity, resulting from the fact that much of this Landscape Character Type encompasses improved agricultural land.
- Moderate landscape and cultural sensitivity as a result of the presence of a patchwork of historic drainage features (ditches and dykes), moated sites and grange sites.

GUIDANCE

Guidance for Managing Landscape Change

Physical and Ecological Character

- **Use** existing hedgerows and biomass planting to integrate built development in the landscape;
- **Maintain** high water tables to prevent the drying out of soils and damage to archaeological evidence;
- **Encourage** the re-creation of a wider range of habitats in arable areas, including the introduction of permanent grassland field margins, grass buffers along water courses, and linking them where possible to create a grassland habitat network;
- **Introduce** a wide range of arable options to enhance habitats for birds and insects;
- **Manage** watercourses to encourage emergent vegetation, including rare species and to improve habitats for water voles.

Cultural and Historic Character

- **Plan** and **site** development carefully to maintain the predominantly open character;
- **Conserve** drainage ditches and dykes which enable the landscape to be used for agriculture;
- **Conserve** the scattered settlement pattern and **enhance** the local vernacular through restoration of traditional farmsteads, farm buildings and associated features;
- **Minimise** disturbance and damage to archaeological sites resulting from cultivation and drainage;
- **Maintain** high water tables to prevent the drying out of soils and damage to archaeological evidence.

Aesthetic and Perceptual Character

- **Protect** the predominantly open character of this low-lying landscape by maintaining long and unbroken views to distant horizons;
- **Protect** and **enhance** public enjoyment of the landscape, including appreciation of the sense of escapism it provides, through identifying opportunities to create new circular routes or links to existing public rights of way.

Signposts to Further Characterisation Information

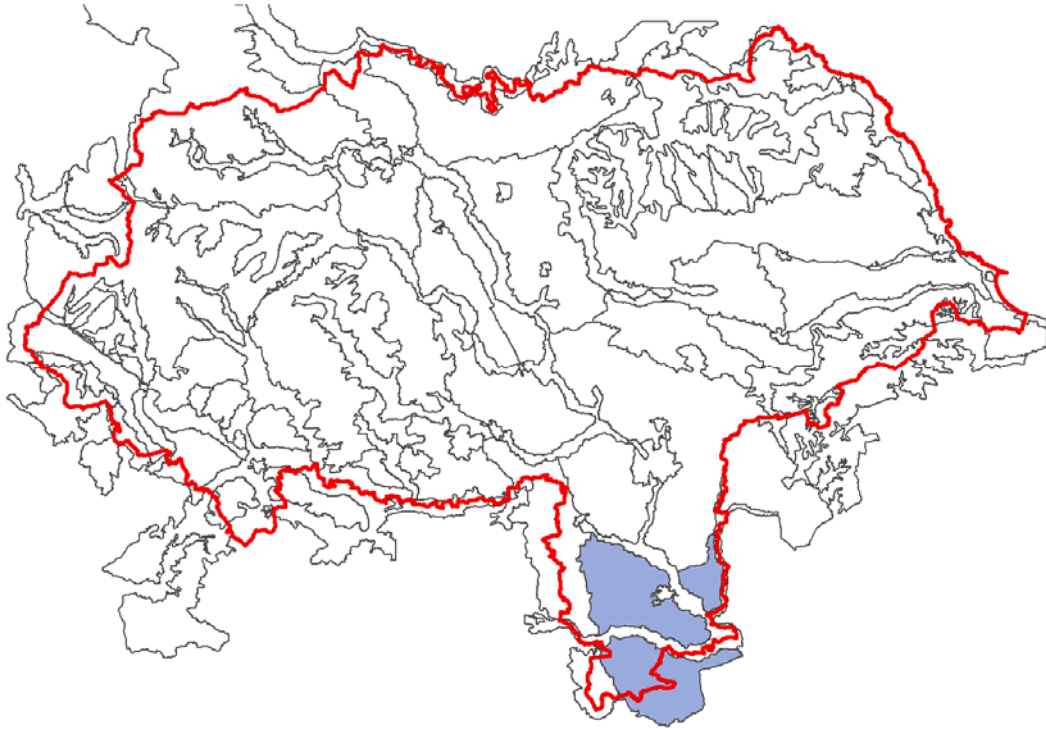
National Character Area

- NCA 26: Vale of Pickering
http://www.naturalengland.org.uk/Images/jca26_tcm6-4983.pdf

Local Landscape Character Assessments

- Scarborough Landscape Character Assessment (1994)

Levels Farmland (23)



CHARACTERISATION

Key Characteristics

- Predominantly flat, low-lying landscape which encompasses a patchwork of arable fields;
- Large scale, open and rectilinear field pattern;
- Dykes or ditches often form field boundaries, with an general absence of hedgerows;
- Industrial scale farm buildings, large embankments and drains, and major energy and transport infrastructure contribute human elements;
- Historical features, such as windmills, recording past attempts to drain the landscape are key features.

Description

5.7.4 The Levels Farmland Landscape Character Type is formed on drift deposits which overlie bedrock sandstones. These drift deposits have a large influence on the landscape, creating the flat or gently undulating topography. The levels farmland occupies the area of a former pro-glacial Lake Humber. The overall unity of character is derived from this glacial impoundment, and the alluvial deposits result in very fertile soil. Sandy deposits and gravels within the area support remnants of heathland. As the soils are difficult to cultivate without high levels of fertiliser input, many have been planted with coniferous plantations. The plantations combine with arable land in large fields to form a large-scale farmland landscape. This is a predominantly flat agricultural landscape. Much of the area is extremely low-lying, with some areas lying at or below the mean high-water mark. Historically, this would have been a very wet landscape. Field trees and hedgerows are generally few and far between and views are often long and unbroken to distant horizons, with the sky playing an important part. Settlement is limited and generally concentrated on higher ground, but within the open levels there are scattered, large, often semi-industrial farmsteads with large modern buildings. The long history

of drainage and water management is evident in many areas with dykes, berms, bridge crossings and disused windmills and water towers.

Definitive Attributes

Geology	<ul style="list-style-type: none"> • Small pockets of sandstone bedrock geology underlie this Landscape Character Type • Superficial geology (which covers this Landscape Character Type) comprises alternating bands of clay, silt and sand and gravel
Topography & Drainage	<ul style="list-style-type: none"> • Predominantly flat and lies below 10 metres AOD; • Crossed by several rivers running west-east
Land Cover	<ul style="list-style-type: none"> • Covered by predominantly arable fields, with small patches of improved grassland; • Pockets of suburban land and relatively large areas of deciduous woodland are also scattered throughout this Landscape Character Type • Patches of remaining wetlands
Enclosure / Field Pattern	<ul style="list-style-type: none"> • A large proportion of the landscape within this Landscape Character Type is covered by large-scale modern improved fields which are divided by drainage ditches • There are also several modern airfields • Situated amongst the modern fields there are also a couple of areas of planned parliamentary enclosure consisting of medium sized semi-irregular enclosure
Settlement Pattern	<ul style="list-style-type: none"> • Contains several villages and the town of Selby, which is located on a crossing point of the River Ouse • Properties tend to be scattered along minor roads • Contains significant infrastructure developments including two airfields, a major power-station at Drax, several railway lines, including the East Coast Main Line, and several rows of electricity pylons
Visible Historic Features	<ul style="list-style-type: none"> • Roman Fort at Roall Hall • Historic drainage features – ditches and dykes • Whitley Thorpe moated Templar grange site to the northwest of Fulham House • Castle Hill Moated Site • Cawood Castle • Bishop Dyke • Spire of Hemingborough church (within River Floodplain (25)) • Moated sites around small farmsteads e.g. Whitley Thorpe, Aire and Calder Navigation/Knottingly and Goole Canal

EVALUATION

Forces for Change

Agricultural Change and Land Management

- Pasture improvement and arable expansion threaten areas of ridge and furrow and other historic earthworks;
- Lowering of the water table in floodplain as a result both of drainage and pumping to abstract water for irrigation, has led to loss of habitats and old water courses, and dried out peats, allowing wind erosion and damage to historic features. Warping drains have also been filled in and ploughed over;
- Agricultural intensification has led to loss of wetland habitats;
- Changes in agricultural practices threaten alluvial flood meadows (known as Ings) which are important for their wetland vegetation and as habitats for wintering and migrating birds;
- Ongoing management of ditches is important in this landscape.

Development and Infrastructure

- There is pressure for road improvements in this area as it is an important north south transport corridor and is near to the port at Hull (outside the Study Area). Roads and embankments are particularly conspicuous in this flat landscape;
- Local buildings are constructed from red 'Barton' brick and pantile or slate roofs. More recent development uses a range of materials including orange bricks;
- Neglect of historical artefacts relating to drainage and pumping of the landscape.

Climate Change

- This area is very low lying and is therefore vulnerable to flooding. Farmers could consider planting flood tolerant crops within flood plains to avoid losses;
- A range of options for river management are available. In some cases it will be most cost effective to maintain existing defences, in other cases it may be necessary to create new features such as wetlands and detention basins to manage flood water and protect urban areas such as Selby;
- The large fields and fertile soil lend themselves to bio-energy crops and extensive planting of Short Rotation Willow Coppice has already taken place around Selby. The uptake of bio-energy crops depends on the market and government incentives.

Mineral Extraction

- Peat extraction is occurring within this Landscape Character Type; however, the Humberhead Peatlands NNR has carried out successful restoration.

Sensitivity to Change Issues

- High visual sensitivity as a result of the predominantly open character and flat landform, which facilitates long distance open views across the landscape and promotes strong intervisibility with adjacent Landscape Character Types;
- Low ecological sensitivity, resulting from the fact that much of this Landscape Character Type encompasses improved agricultural land.
- Moderate landscape and cultural sensitivity as a result of the presence of a patchwork of historic drainage features (ditches and dykes), moated sites and grange sites.

GUIDANCE

Guidance for Managing Landscape Change

Physical and Ecological Character

- **Use** existing hedgerows and biomass planting to integrate built development in the landscape;
- **Maintain** high water tables to prevent the drying out of soils and damage to archaeological evidence;
- **Encourage** the re-creation of a wider range of habitats in arable areas, including the introduction of permanent grassland field margins, grass buffers along water courses, and linking them where possible to create a grassland habitat network;
- **Introduce** a wide range of arable options to enhance habitats for birds and insects;
- **Incorporate** miscanthus and short rotation coppice into the landscape, with particular consideration to landscape character, avoiding peatland sites and areas of historic field patterns;
- **Manage** watercourses to encourage emergent vegetation, including rare species and to improve habitats for water voles;
- **Extend** natural washlands to increase areas of wetland habitats and assist in flood risk management.

Cultural and Historic Character

- **Plan** and **site** development carefully to maintain the predominantly open character;
- **Conserve** drainage ditches and dykes which enable the landscape to be used for agriculture;
- **Conserve** the scattered settlement pattern and **enhance** the local vernacular through restoration of traditional farmsteads, farm buildings and associated features;
- **Minimise** disturbance and damage to archaeological sites resulting from cultivation and drainage;
- **Maintain** high water tables to prevent the drying out of soils and damage to archaeological evidence.

Aesthetic and Perceptual Character

- **Protect** the predominantly open character of this low-lying landscape by maintaining long and unbroken views to distant horizons;
- **Protect** and **enhance** public enjoyment of the landscape, including appreciation of the sense of escapism it provides, through identifying opportunities to create new circular routes or links to existing public rights of way;
- **Develop** the Humberhead Peatland NNR as a flagship site for access and public enjoyment.

Signposts to Further Characterisation Information

National Character Area

- NCA 39: Humberhead levels
http://www.naturalengland.org.uk/Images/jca39_tcm6-4983.pdf

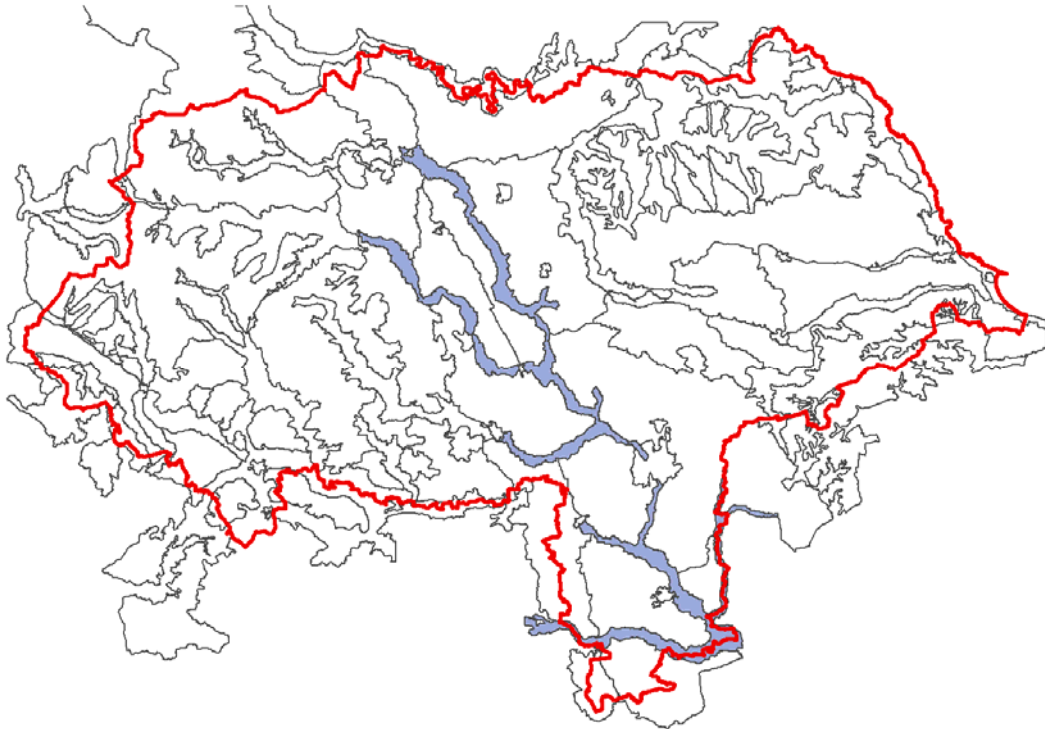
Local Landscape Character Assessments

- Selby Landscape Character Assessment (1999)

Adjacent Landscape Character Assessments

- East Riding Landscape Character Assessment (2005)
<http://www.eastriding.gov.uk/corp-docs/forwardplanning/html/lca.html>

River Floodplain (24)



CHARACTERISATION

Key Characteristics

- A series of flat, low lying, relatively narrow river corridors which flow through the different types of Vale Farmland Landscape Character Types within the Study Area;
- The 'Ings' - flood meadows maintained by traditional hay making activities;
- Landscape pattern comprises a mixture of flood meadows, neutral grasslands and floodplain mires;
- Halls and manor houses are key landscape features;
- River engineering features such as Levees assert a human influence over the landscape;
- Power stations, pylons and former collieries are present in parts of this Landscape Character Type;
- The A1 (M) introduces a source of noise and visual intrusion in several places.

Description

- 5.7.5 The courses of rivers within this Landscape Character Type are often lined with trees and lush, diverse vegetation. In places, the river corridors are therefore relatively enclosed, resulting in an intimate scale in contrast to the open exposed nature of the adjacent flood meadows and lowland landscapes. The flat alluvial soils of the wide river margins have given rise to the fertile 'Ings' lands where animals have been grazed and hay harvested for many centuries. This historically rich habitat is also notable for its considerable nature conservation value including flood meadows, neutral grasslands and floodplain mires. Traditional management of communal haymaking and grazing is still carried out at a few sites. Halls and Manor Houses provide historical interest, together with traditional settlements on the edge of the Landscape Character Type. Transmission lines are also key vertical landscape elements which exert a human influence in several locations. Other human influences include power stations, former

collieries and the corridor of the A1 (M). Fields, immediately adjacent to the river corridors are often drained by open, reedy drains, which contribute to recognisable sense of place.

Definitive Attributes

Geology	<ul style="list-style-type: none"> Predominantly sand and gravel superficial deposits along the valley corridors, with occasional patches of diamicton
Topography & Drainage	<ul style="list-style-type: none"> In the north of the Study Area, the River Floodplain Landscape Character Type is at approximately 20 metres AOD, flowing downwards to below 10 metres AOD in the south Relatively broad river corridors, containing the river floodplain of several major river courses
Land Cover	<ul style="list-style-type: none"> Network of drainage ditches are a key landscape feature A patchwork of small scale arable and improved grassland fields, interspersed with small patches of fen, marsh and swamp, inland bare ground and calcareous grassland
Enclosure / Field Pattern	<ul style="list-style-type: none"> Sinuuous belts of modern fields, following the course of the river corridor are features Interspersed with these are pockets of piecemeal enclosure, parkland, irregular strip fields and lowland meadow
Settlement Pattern	<ul style="list-style-type: none"> Significant settlements occur within the river floodplain LCT including York, Ripon, Selby, Tadcaster and Boroughbridge A range of settlement types occurs across the LCT, some areas do not contain buildings however individual farmsteads, ribbon development along roads, and nucleated villages developed around crossing points occur elsewhere
Visible Historic Features	<ul style="list-style-type: none"> Aldbrough Roman Town Large collection of historic stone bridges at Croft, Catterick, Skipton on Swale, Tanfield and Masham Swing bridge at Cawood Jervaulx Abbey Fields of ridge and furrow drainage 18th century weir and salmon ladder at Linton Lock (Linton on Ouse) Designed landscapes and country houses at Newby Hall and Beningborough (visible within adjacent Landscape Character Types) Site of Roman fort and settlement 400m north of Brickyard Farm (Aldbrough) Medieval moated site, fishponds and associated field system near Crake Hill Maiden Bower and Cock Lodge: a motte and bailey castle, moated site, windmill mound and associated linear outwork Hutton Hall (site of) Henge monument 300m north of Nunwick Nether Poppleton Medieval moated site, fishponds and earthworks around and associated with St Everilda's church Moated site near Benningbrough Scurff Hall Moated Site East Tanfield deserted medieval village Kilgram Medieval Monastic Grange St Giles Medieval Hospital, post medieval farmstead and Iron Age Occupation site immediately north of St Giles Farm Catacactonium Roman Forts and town Bainesse Roman roadside settlement and Anglian cemetery Castle Hills medieval motte and bailey castle and 20th century airfield defences Historic parks and gardens at Norton Conyers, Newby Hall, Beningborough Hall, Ribston Hall, Moreby Hall Myton battlefield

	<ul style="list-style-type: none"> • Devils Arrows • Swainby Medieval Settlement, Premonstratensian abbey
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EVALUATION

Forces for Change

Agricultural Change and Land Management

- Pasture improvement and arable expansion threaten areas of ridge and furrow and other historic earthworks, as well as the remnants of traditional farming such as grazing meadows
- Lowering of the water table as a result both of drainage and pumping to abstract water for irrigation, has led to loss of habitats and old water courses, and dried out peats, allowing wind erosion and damage to historic features. Warping drains have also been filled in and ploughed over;
- Agricultural intensification has led to loss of hedges, trees and small woods, making a traditionally open landscape even more open;
- Changes in agricultural practices threaten alluvial flood meadows (known as lngs) which are important for their wetland vegetation and as habitats for wintering and migrating birds.

Development and Infrastructure

- Pressure from tourism and access for recreation, which could result in land management changes/development.

Climate Change

- Climate change is expected to bring an increased risk of flooding and many settlements within the floodplain are likely to be vulnerable;
- A range of options for river management are available. In some cases it will be most cost effective to maintain existing defences, in other cases it may be necessary to create new features such as wetlands and detention basins to manage flood water and protect urban areas such as Selby;
- Future flood defence systems and options for river management, including flood bunds and wetlands, may impact upon the character of the river corridors;
- Levees require ongoing maintenance.

Mineral Extraction

- River sands and gravels have been extracted for many centuries in this Landscape Character Type. There is likely to be a continuing demand for minerals from the construction industry. Extraction sites have an effect on their immediate vicinity. The long term effect of extraction sites on the landscape should be considered as they have the potential to degrade the land. It is possible to restore sites to agricultural use or as bio-diverse nature reserves
- The effect of lorries and traffic in rural areas should be considered as they have the potential to introduce noise and congestion.

Sensitivity to Change Issues

- High visual sensitivity as a result of the predominantly open character and flat landform, which facilitates long distance open views across the landscape and promotes strong intervisibility with adjacent Landscape Character Types;
- High ecological sensitivity as result of the patchwork of fen, flood meadows, floodplain mires, marsh and swamp, inland bare ground and calcareous grassland habitats. Several of these habitats are designated as SSSI and Ramsar sites;
- High landscape and cultural sensitivity as a result of the presence numerous historic settlement sites, archaeological sites and designed landscapes, coupled with a dynamic landscape pattern of narrow river corridors.

GUIDANCE

Guidance for Managing Landscape Change

Physical and ecological character

- **Ensure** effective catchment management to sustain water quality;
- **Encourage** the creation of new woodland along appropriate riverbanks, which complements the existing woodland pattern;
- **Conserve** the natural form of the rivers by avoiding engineered solutions to water management, such as canalisation, bank hardening and river straightening;
- **Conserve** natural river floodplain features, such as meanders, oxbows, old river channels, ponds and islands;
- **Conserve** valuable floodplain habitats (such as Ings) by encouraging low intensity grazing in the remaining semi-natural habitats (which include mire, fen, flushes, marshy grassland and wet
- **Restore** and **enhance** wetland habitats;
- **Target** agri-environment scheme support for management of broadleaved woodland, wetland pasture and meadow habitats;
- **Encourage** conservation of existing key habitats and landscape features and expand the resource through habitat restoration and re-creation guided by ecological networks.

Cultural and Historic Character

- **Encourage** use of local materials and vernacular styles in developments to strengthen local character, including limestone and gritstone;
- **Conserve** and **enhance** the distinct pattern of stone walls and hedgerows delineating field boundaries in order to maintain landscape structure;
- **Conserve** historic and archaeological sites in the Valley Floodplains and consider the setting of historic and archaeological sites when planning and implementing all landscape management action;
- **Ensure** that highway improvement schemes respect and reflect local character and encourage the use of traditional signage where possible;
- **Ensure** the protection and setting of halls, manor houses and other landscape features.

Aesthetic and Perceptual Character

- **Conserve** open views along and across the river floodplains towards adjacent Landscape Character Types;
- **Protect** and **enhance** public enjoyment of the landscape, including appreciation of the sense of escapism it provides, through identifying opportunities to create new circular routes or links to existing public rights of way.

Signposts to Further Characterisation Information

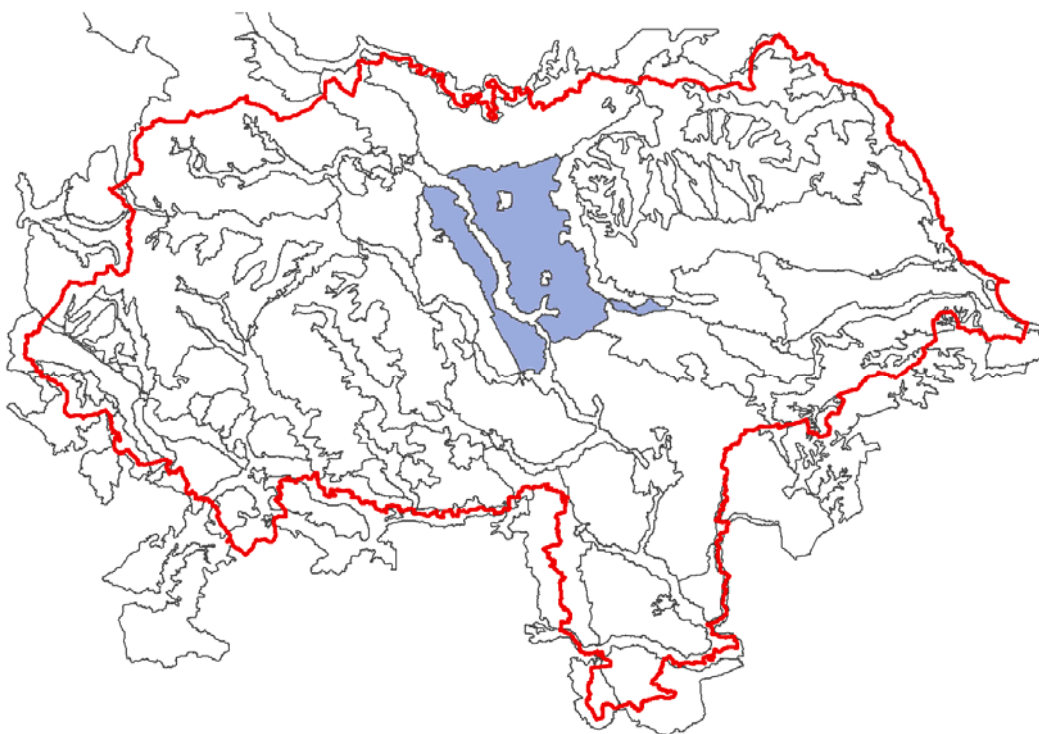
National Character Area

- NCA 22: Pennine Dales Fringe;
http://www.naturalengland.org.uk/Images/jca22_tcm6-5274.pdf
- NCA 24: Vale of Mowbray;
http://www.naturalengland.org.uk/Images/jca24_tcm6-5663.pdf
- NCA 28: Vale of York;
http://www.naturalengland.org.uk/Images/jca28_tcm6-5682.pdf
- NCA 30: Southern Magnesian Limestone;
http://www.naturalengland.org.uk/Images/jca30_tcm6-5121.pdf
- NCA 39: Humberhead Levels
http://www.naturalengland.org.uk/Images/jca39_tcm6-4983.pdf

Local Landscape Character Assessments

- Selby Landscape Character Assessment (1999);
- York Landscape Character Assessment (1996);
http://www.york.gov.uk/environment/Planning/Local_development_framework/LDF_Evidence_base/landscapecharacterappraisal/
- Harrogate District Landscape Character Assessment (2004);
<http://www.harrogate.gov.uk/harrogate-93>
- Hambleton Landscape Character Assessment (1991)
- East Riding Landscape Character Assessment (2005)
<http://www.eastriding.gov.uk/corp-docs/forwardplanning/html/lca.html>

Settled Vale Farmland (25)



CHARACTERISATION

Key Characteristics

- A patchwork of low lying, predominantly arable fields, often delineated by a network of mature hedgerows;
- Distant visual containment is provided by higher Landscape Character Types to the east and west;
- Strong sense of openness throughout much of this Landscape Character Type;
- Remnant mires and wetlands (often shallow and seasonally flooded) survive from the post glacial period;
- A network of trunk roads linking the larger settlements such as Northallerton and Thirsk;
- Settlement pattern of villages and dispersed farmsteads between the larger towns;
- Pylons, major roads and associated earthworks and drainage infrastructure exert a human influence over the landscape.

Description

- 5.7.6 This Landscape Character Type occupies an extensive swathe of land within the central parts of the Study Area and encompasses broad valleys associated with the rivers Nidd, Ure and Swale. The Vale comprises flat or gently undulating farmland that has a relatively sparse cover of trees and woodlands. The western Vale is predominantly pastoral, with sheep and cattle grazed over the more clayey soils, whilst the eastern Vale, with its peaty soils, is predominantly large-scale arable, with some localised pig-farming. The dominant feature of the Vale is its river systems and their associated floodplains (which are defined as River Floodplain Landscape Character Type: 25). There is a general absence of hedgerows, and field boundaries mostly follow ditch lines or access tracks. This open landscape is dominated by views of the surrounding hills (within the Wooded Hills and Valley and Chalk Wolds Landscape Character Types). To the west, the low mangesian limestone ridge (Landscape Character Type 6) provides a sense of visual containment. Roads are characteristically straight with wide verges

bounded by hawthorn hedges, and these link dispersed, large, scattered farmsteads. A network of dykes, cuts, and canalised watercourses, which regulate the water table, are visible but not prominent in landscape. In most parts of the Vale, the settlement pattern is characterised by dispersed groups of houses and isolated farmsteads in areas of rising ground. Although, modern, large-scale redevelopment has not taken place, the Vale has been subject to the 'sub-urbanising effects' of small scale change. Vertical elements, such as power transmission lines, exert a strong visual influence as the landscape is so flat. Roads and tracks are mostly for farm access. Despite this, the overall sense is of an isolated, remote rural landscape.

Definitive Attributes

Geology	<ul style="list-style-type: none"> The bedrock geology is overlain with a series of surface deposits Diamicton occurs towards the edges of the vale Sand and gravel river terraces and clay and silt deposits are evident in the centre of the Vale adjacent to the rivers
Topography & Drainage	<ul style="list-style-type: none"> This Landscape Character Type forms a broad plain There are minor variations in topography due to a number of moraine and esker features This Landscape Character Type lies adjacent to the River Floodplain Landscape Character Type which contains several major rivers The area contains a network of dykes, cuts and canalised water courses.
Land Cover	<ul style="list-style-type: none"> The land cover is predominantly arable interspersed with areas of improved grassland
Enclosure / Field Pattern	<ul style="list-style-type: none"> Large areas of modern improved fields which have seen a large degree of boundary loss since the first edition OS map cover much of this area Significant areas of planned parliamentary enclosures which consist of medium sized regular fields defined by straight hedges
Settlement Pattern	<ul style="list-style-type: none"> Straight roads link large, widely dispersed, scattered farmsteads. Roads and tracks are mostly for farm access In most parts of the Vale, the settlement pattern is characterised by dispersed groups of houses and isolated farmsteads in areas of rising ground. Local materials include mottled brick and pantiles
Visible Historic Features	<ul style="list-style-type: none"> Medieval village of Hunton and field system Swainby Medieval Settlement, Premonstratensian abbey, grange and field system, immediately east of Swainby Grove Humberton DMV Brocket Hall moated site Linear village of Howsham Areas of ridge and furrow, particular to the north, associated with areas of pastoral farming A number of WWII airfields, often with semi-industrial buildings and intensive poultry rearing (e.g. at Skipton on Swale) Several country houses and parks e.g. Sion Hill Hall, Iron Age barrows

EVALUATION

Forces for Change

Agricultural Change and Land Management

- Lack of management of existing broad leaved woodlands can lead to gradual decline with a large proportion of over-mature trees and lack of young trees to replace them;
- Neglect in hedgerow management, leading to a decline in the quality of hedgerows;
- Neglect of parklands, resulting in a loss of characteristic features;
- Conversion of permanent pastures to arable can potentially affect hedgerows and archaeological features including earthworks. Arable land adjacent to watercourses can cause pollution. Allowing livestock access to the river also causes pollution.

Development and Infrastructure

- Pressures for housing and industry around towns, along main road corridors, and on redundant airfields can impact on rural character;
- New development within historic villages may not be consistent with the historic form of the village and the vernacular materials and design of buildings;
- There is pressure for the development of infrastructure within the vale possibly including new housing and commercial facilities, overhead transmission lines and cables, pipelines, roads, energy and services infrastructure;
- Pressure on farm businesses is likely to lead to changes in land management and diversification of farm businesses, which may lead to the creation of new landscape features, such as fishing ponds

Climate Change

- Flooding is likely to pose an increased risk in lowland areas and farmers should consider planting flood resistant crops in flood plains wherever possible;
- Agriculture will have to adapt to use less water, carbon and other resources, and reduce runoff of water, soil, fertiliser and pesticides into adjacent watercourses. There is potential to introduce buffer zones to water courses;
- Opportunities for wetland creation and restoration

Mineral Extraction

- River sands and gravels have been extracted for many centuries in this area. There is likely to be a continuing demand for minerals from the construction industry. Extraction sites have an effect on their immediate vicinity. The long term effect of extraction sites on the landscape should be considered as they have the potential to degrade the land. It is possible to restore sites to agricultural use or as bio-diverse nature reserves;
- Watercourses are sensitive to pollution from mineral extraction;
- The effect of lorries and traffic in rural areas should be considered as they have the potential to introduce noise and congestion.

Sensitivity to Change Issues

- Moderate visual sensitivity overall. Whilst there is a strong sense of openness within much of the farmland as a result of the flat or gently undulating topography, built developments disrupt views to adjacent Landscape Character Types in places;
- Low ecological sensitivity overall. Much of this Landscape Character Type comprises improved agricultural fields. There are, however, occasional patches of semi-natural ancient woodland, which provide key habitats;
- Moderate landscape and cultural sensitivity overall. In places, historic landscape patterns are compromised by modern developments and infrastructure and hedgerows are gappy. There are, however, numerous historic landscape features present, including parkland landscapes, historic villages and prehistoric earthworks.

GUIDANCE

Guidance for Managing Landscape Change

Physical and ecological character

- **Manage, restore** and **thicken** hedgerows for landscape structure and biodiversity;
- **Ensure** effective catchment management to sustain water quality;

- **Encourage** conservation of existing key habitats and landscape features and expand the resource through habitat restoration and re-creation guided by ecological networks;
- **Seek** opportunities to revert arable farmland to permanent pasture, particularly in floodplains or areas of archaeological interest;
- **Introduce** arable conservation headlands, pollen and nectar mixes, to encourage birds, invertebrates and rare arable plants;
- **Incorporate** miscanthus and short rotation coppice into the landscape – keeping plantations relatively small, in scale with local woodland cover (and avoid planting on pasture or obscuring water courses or historic features);
- **Restore, extend and link** existing fragmented areas of broadleaf woodland and actively manage these;
- **Seek** opportunities for wetland creation and restoration.

Cultural and Historic Character

- **Protect** the scattered settlement pattern of villages and farmsteads through maintaining Northallerton and Thirsk as the main market towns and avoiding development on the floodplains;
- **Minimise** disturbance and damage to archaeological sites resulting from cultivation;
- **Strengthen** historic field systems and patterns through hedgerow planting and management;
- **Protect and manage** parklands, retaining veteran trees and reintroducing wood pasture
- **Ensure** that highway improvement schemes respect and reflect local character and encourage the use of traditional signage where possible;
- **Protect** the setting of historic buildings;
- **Seek** opportunities for educational access to historic farm buildings and to interpret the farmed environment.

Aesthetic and Perceptual Character

- **Conserve** open views along and across the river floodplains towards adjacent Landscape Character Types;
- **Protect and enhance** public enjoyment of the landscape, including appreciation of the sense of escapism it provides, through identifying opportunities to create new circular routes or links to existing public rights of way.

Signposts to Further Characterisation Information

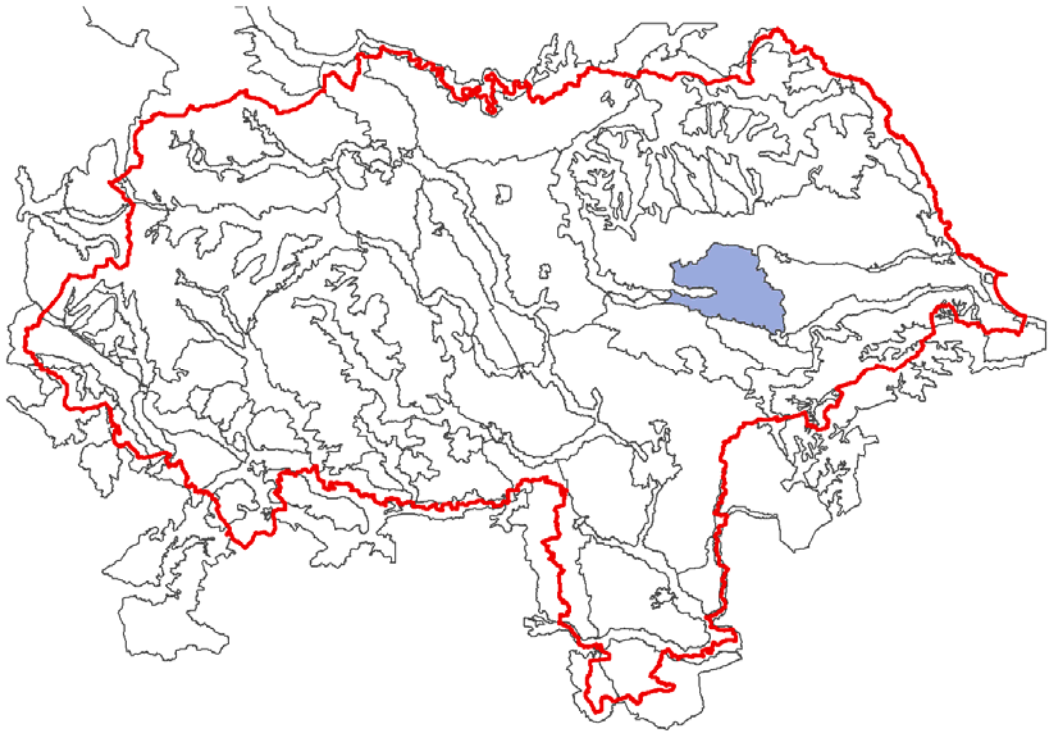
National Character Area

- NCA 24: Vale of Mowbray
http://www.naturalengland.org.uk/Images/jca24_tcm6-5676.pdf

Local Landscape Character Assessments

- Hambleton Landscape Character Assessment (1991)

Enclosed Vale Farmland (26)



CHARACTERISATION

Key Characteristics

- Broad vale landscape which feels generally enclosed to the north and south by higher landscapes (within the Limestone Foothills and Valleys, Limestone Ridge and Wooded Hills and Valleys Landscape Character Type);
- Lightly settled landscape containing a pattern of dispersed farmsteads;
- Predominantly rural character and overall sense of tranquillity;
- Large rectilinear, predominantly arable fields, interspersed with pockets of improved grassland in the west;
- Embankments, dykes and electricity pylons exert a human influence over the landscape;
- Pockets of diverse wetlands are also key landscape features;
- Several prehistoric sites (such as Star Carr), and heritage features relating to monasteries and historic drainage works are scattered throughout the landscape.

Description

- 5.7.7 The low lying flat or gently undulating vale landscape (the Vale of Pickering) is overlain by superficial geological deposits of clay, silt and sand. Part of the Vale contained a pro-glacial lake in the Pleistocene era. The landscape has been drained and predominantly comprises arable farmland. This Landscape Character Type is dotted with drainage features such as embankments and dykes, which contribute to a recognisable landscape pattern. The predominantly flat nature of this Landscape Character Type facilitates open, relatively long distance views to adjacent higher landscapes, including the Chalk Wolds to the south and Limestone Foothills and Valleys to the north. There is subtle variety, resulting from the pattern of tree cover dotted amongst arable fields. Whilst the landscape is crossed by a series of roads (and the Scarborough – York railway) this Landscape Character Type has a feeling of inaccessibility, enhanced by many of the roads being dead-ends. Human habitation is

restricted almost solely to farmsteads, which are numerous. The striking exception is Wykeham Abbey and associated grounds, which provide focal points within views across the Vale. Electricity cables and pylons are prominent vertical elements within this landscape. Overall sense of tranquillity is strong throughout much of this Landscape Character Type.

Definitive Attributes

Geology	<ul style="list-style-type: none"> • The geology is dominated by superficial deposits overlying the bedrock • Lacustrine deposits of clay, sand and silt overlie much of this area • Alluvial deposits are present in the immediate vicinity of the rivers
Topography & Drainage	<ul style="list-style-type: none"> • The area forms a low lying vale around 20 m AOD • There is little topographical variation within the vale • The surrounding hills enclose the vale and are visually significant • The River Derwent flows from east to west along the vale • A number of tributaries flowing south from the North York Moors cross the western part of the Landscape Character Type • The River Rye (which runs west-east in its lower reaches) and its tributaries drain the western part of the Vale (sometimes known as Ryevale). • Series of low hills (underlain by Kimmeridge Clay) which provided north-south routes across the western part of the vale and settlement sites • The eastern half of the Vale was drained by the Muston and Yedingham Drainage Board (established in 1800) which included the Sea Cut which diverts flood water from the Derwent down to the sea at Scalby.
Land Cover	<ul style="list-style-type: none"> • Arable agriculture is dominant in the eastern part of the Landscape Character Type • Wetlands; • Small pockets of predominantly deciduous woodland; • The western part of the Landscape Character Type is a complex mosaic of arable cereals, arable horticulture and improved grassland • Improved grassland is often associated with river corridors
Enclosure / Field Pattern	<ul style="list-style-type: none"> • The area is characterised by enclosures from different periods • Areas of planned enclosures with semi-regular fields, from an unknown date • Parliamentary enclosures with medium sized fields in a regular pattern, often defined by ditches • Areas of modern improved fields which have seen considerable boundary loss
Settlement Pattern	<ul style="list-style-type: none"> • Dispersed settlement pattern in the form of cottage groups, small hamlets and isolated farmsteads in areas of rising ground. Villages are small and widely spaced. This results from relatively late enclosure of the carr lands following their drainage • Settlements are linked by long narrow lanes and tracks, many of the lanes are dead ends • This dispersed pattern gives the area a strongly rural almost remote and inaccessible feeling
Visible Historic Features	<ul style="list-style-type: none"> • Roxby Hill manorial complex and associated ridge and furrow earthworks • Barton Le Street Iron Age Settlement • Yedingham Priory • Wykeham Cistercian Priory, All Saints parish church and churchyard cross • Slingsby Castle • Site of medieval manor house • Nunnington Hall historic park and garden

	<ul style="list-style-type: none"> • Priory at Old Malton • Wykeham Park • Wombledon airfield • Manorial earthworks at Great Barugh • Medieval village earthworks at West Ness
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EVALUATION

Forces for Change

Agricultural Change and Land Management

- Pasture improvement, arable expansion, and drainage and cultivation of peats (in the eastern vale), threaten prehistoric deposits, areas of ridge and furrow and other historic earthworks. Remnant grasslands around farmsteads often contains relict field systems which are vulnerable to changes to arable land use;
- Intensification of agriculture has led to field boundary and hedgerow tree loss, particularly on the northern and western edges of the vale, where hedges rather than ditches are characteristic.

Development and Infrastructure

- New development within historic villages may not be consistent with the historic form of the village and the vernacular materials and design of buildings;
- Disrepair of traditional farm buildings is causing their gradual decay. Conversion may provide an active use for the building, but has the potential to introduce standardised suburban elements into this predominantly rural landscape.

Climate Change

- Flooding will be an increased risk in lowland areas and farmers could consider planting flood resistant crops in flood plains;
- Buffer strips adjacent to watercourses may be required and there are opportunities for the creation of wetland habitats to mitigate flood risk.

Mineral Extraction

- There is likely to be a continuing demand for minerals from the construction industry and this area may be able to provide river sands and gravels. Extraction sites have an effect on their immediate vicinity. The long term effect of extraction sites on the landscape should be considered as they have the potential to degrade the land. It is possible to restore sites to agricultural use or as bio-diverse nature reserves;
- The effect of lorries and traffic in rural areas should be considered as they have the potential to introduce noise and congestion;
- Mineral extraction could result in an adverse impact on watercourses.

Sensitivity to Change Issues

- High visual sensitivity as a result of the predominantly flat nature of this Landscape Character Type which facilitates open, relatively long distance views to adjacent higher landscapes, including the Vale Farmland with Plantation Woodland and Vale Farmland with dispersed settlements Landscape Character Types;
- Generally low ecological sensitivity overall. Much of this Landscape Character Type comprises improved agricultural fields or improved grassland, however there are patches of deciduous woodland in places;
- High landscape and cultural sensitivity, resulting from the subtle variety in landscape patterns, including tree cover dotted amongst arable fields, a predominantly rural landscape

and associated sense of tranquillity, combined with rich historic evidence of prehistoric sites and earthworks manorial sites and historic villages.

GUIDANCE

Guidance for Managing Landscape Change

Physical and ecological character

- **Manage, restore** and **thicken** hedgerows for landscape structure and biodiversity;
- **Ensure** effective catchment management to sustain water quality;
- **Encourage** conservation of existing key habitats and landscape features and expand the resource through habitat restoration and re-creation guided by ecological networks;
- **Seek** opportunities to revert arable farmland to permanent pasture, particularly in floodplains or areas of archaeological interest;
- **Manage** and **enhance** the wetland landscape for water storage, water quality and biodiversity;
- **Restore** natural river dynamics to strengthen sense of place and increase the opportunities for water storage and biodiversity;
- **Protect, manage** and **thicken** hedgerows;
- **Create** small native broadleaf woodlands (including characteristic copses by farmsteads) and actively managing these to achieve a diverse age range;
- **Incorporate** biomass crops such as miscanthus and short rotation coppice on small scale, particularly where they can contribute to the local landscape character, whilst retaining the long views that are characteristic of the area.

Cultural and Historic Character

- **Protect** the dispersed settlement pattern of villages and farmsteads;
- **Minimise** disturbance and damage to archaeological sites resulting from cultivation;
- **Strengthen** historic field systems and patterns through hedgerow planting and management;
- **Address** the decline of historic buildings throughout the vale by repairing and restoring using traditional materials (typically brick and sandstone imported from surrounding uplands).

Aesthetic and Perceptual Character

- **Protect** the predominantly rural character and associated sense of tranquillity;
- **Support** sustainable recreation and educational access to enable understanding and appreciation of the environment, in particular its clear evidence of historic change at sites such as Star Carr;
- **Maintain** key views to adjacent Landscape Character Types;
- **Identify** opportunities to create new circular routes or links to existing rights of way, particularly linking to the Cleveland Way, Ebor Way and the Wolds Way long distance routes;
- **Protect** and **enhance** public enjoyment of the landscape, including appreciation of the sense of escapism it provides, through identifying opportunities to create new circular routes or links to existing public rights of way.

Signposts to Further Characterisation Information

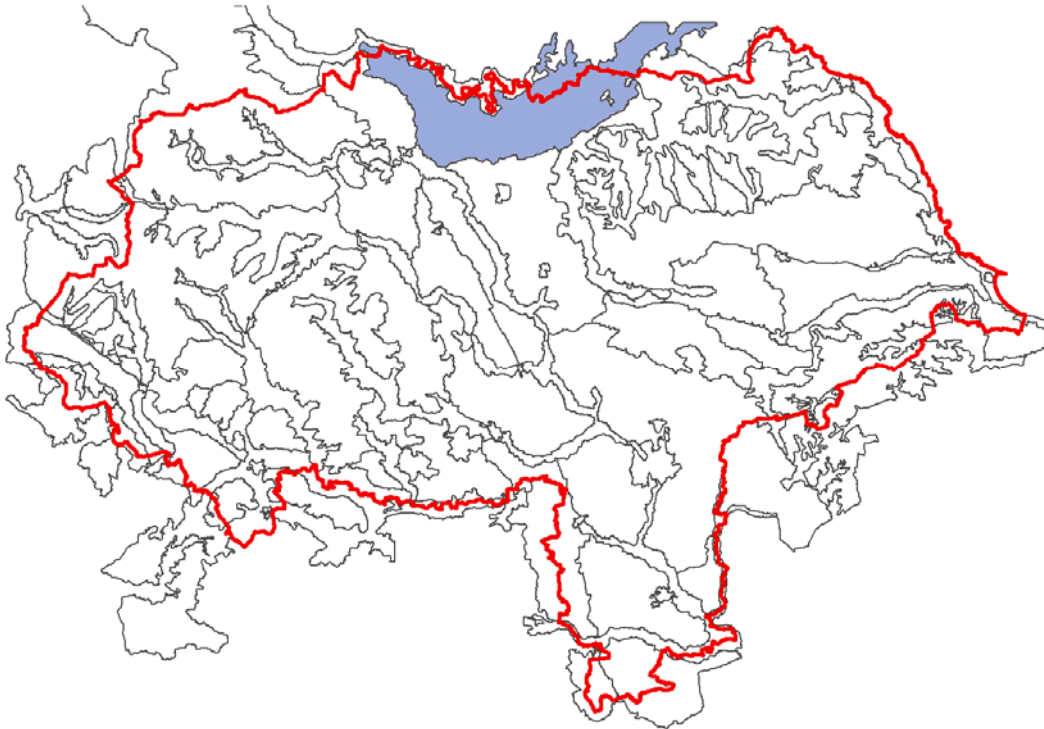
National Character Area

- NCA 26: Vale of Pickering
http://www.naturalengland.org.uk/Images/jca26_tcm6-5676.pdf

Local Landscape Character Assessments

- Ryedale Landscape Character Assessment (1999),
- Scarborough Landscape Character Assessment (1994)

Vale Farmland with Dispersed Settlements (27)



CHARACTERISATION

Key Characteristics

- Generally low lying, gently rolling landscape which contain several small river corridors;
- Distant sense of enclosure in views east and west provided by the backdrop of the North York Moors and Yorkshire Dales;
- A medium to large-scale agricultural landscape which is delineated by a network of mature hedgerows, often containing hedgerow trees;
- Dispersed settlement pattern of farmsteads, small hamlets and villages;
- Extensive use of local clays for brick making and pantiles for roofing;
- The A1 (M) transport corridor runs north south across the landscape and exerts a human influence.

Description

- 5.7.8 Topography within this Landscape Character Type is predominantly flat to gently rolling and displays a patchwork of medium to large-scale arable fields which are interspersed with pockets of improved grassland and deciduous woodland, which provides an intermittent sense of enclosure. Fields are generally delineated by a network of mature hedgerows, often containing hedgerow trees. The landscape is crossed by a network of river corridors including the Swale and its tributaries the Wiske and the Cod Beck. In the north, river valleys tend to be narrow and are often tree lined while in the south the flood plain broadens and meandering rivers are often embanked. Airfields (several of which date from WWII) and the major transport corridor of the A1(M) impart a human character onto this otherwise predominantly rural landscape. Settlement pattern comprises a combination of dispersed, scattered farmsteads, small villages and hamlets (several of which originate from the medieval period). Villages often display a linear pattern, following the course of road corridors. Several historic houses or halls and their associated parkland landscapes are scattered throughout this landscape. This is a predominantly rural landscape with a relatively strong sense of tranquillity throughout.

Definitive Attributes

Geology	<ul style="list-style-type: none"> • Much of the area is covered by glacial till from the Devensian period • Alluvium and river terrace deposits are present in the river corridors
Topography & Drainage	<ul style="list-style-type: none"> • The Landscape Character Type forms a vale between the Yorkshire Dales to the west and the Cleveland Hills and North York Moors to the west • The land is generally low lying • Glacial features such as moraines and eskers create minor undulations in the landform • The ground rises at the vale fringes • A number of small rivers and becks flow through the landscape with some, such as the river Leven draining into the Tees Basin to the north
Land Cover	<ul style="list-style-type: none"> • Arable cereals and improved grassland create a complex land cover pattern • Smaller areas of calcareous grassland are present particularly adjacent to water courses • Small areas of deciduous woodland are scattered throughout the landscape
Enclosure / Field Pattern	<ul style="list-style-type: none"> • Piecemeal enclosures with irregular field boundaries are present within the Landscape Character Type particularly on areas of freer draining soil • Areas of planned enclosures characterised by medium sized fields and regular field patterns • Areas of large modern fields are common throughout the LCT
Settlement Pattern	<ul style="list-style-type: none"> • Settlement is generally concentrated on the high ground and is scattered throughout the landscape, resulting in a dispersed pattern • Villages frequently display a linear form, running along roads • Church towers and spires are prominent landmarks • Farmsteads are dispersed throughout the Vale with many dating from the Parliamentary enclosure period • Estate villages have strong individual character. Great Thirkleby, for example, contains buildings of a distinctively mid-Victorian Gothic Style
Visible Historic Features	<ul style="list-style-type: none"> • Ravensworth motte and bailey castle, water defence features, park pale and shrunken medieval village • Carkin Moor Roman fort and prehistoric enclosed settlement 400 m west of Carkin Moor Farm • Two moated sites, the site of a dovecote and further associated features to the north of Old Hall • Late Iron Age oppidum, Iron Age and medieval settlement, early Christian church and sculpture and post-medieval emparkment • Manfield Shrunken medieval village and associated field system • Copper mine and medieval ridge and furrow • South Cowton deserted medieval village, immediately south west of Cowton Castle • Birkby medieval settlement and associated field system, moated site and fish ponds • Moulton medieval settlement, field system and moated site • Medieval village of Lazenby • Little Smeaton medieval village and rabbit warrens, immediately South East of Westhorpe Hall • Deighton moated site • Harlsey Castle • Winton medieval settlement including fishponds and field system immediately south of Winton House • Sigston Castle • Upsall Castle

	<ul style="list-style-type: none"> • Medieval settlement and associated field system and post-medieval chapel, adjacent to Manor House Farm • Tunstall medieval settlement • Forcett Hall Registered Park and Garden • Copper mining and ridge and furrow fields at Middleton Tyas • Deserted medieval village at Tanton • Arts and crafts style estate village at East Rounton • Late Iron Age tribal capital and Saxon church at Stanwick • Designed landscape and Iron Age earthworks at Forcett • Ravensworth Castle • Deserted medieval village and church at High Worsall
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EVALUATION

Key Forces for Change

Agricultural Change and Land Management

- Lack of management of existing broad leaved woodlands resulting in a gradual decline with a large proportion of over-mature trees and lack of young trees to replace them;
- Decline in the management and quality of hedgerows;
- Decline in the management of parkland and associated features;
- Conversion of permanent pastures to arable could potentially affect hedgerows and archaeological features including earthworks;
- Pollution of watercourses from adjacent arable fields.

Development and Infrastructure

- Pressures for housing along main road corridors, and on redundant airfields could affect the dispersed settlement pattern and predominantly rural character;
- In a flat landscape such as this development can often be contained by vegetation, however if the species chosen are not characteristic of the area it can cause loss of distinctiveness
- New development within historic villages may not be consistent with the historic form of the village and the vernacular materials and design of buildings
- Pressure for the development of infrastructure within the vale possibly including new overhead transmission lines and cables, pipelines, roads, energy and services infrastructure.

Sensitivity to Change Issues

- Moderate visual sensitivity as a result of the combination of open views to adjacent Landscape Character Types and sense of enclosure provided by pockets of deciduous woodland;
- Generally low ecological sensitivity overall. Much of this Landscape Character Type comprises improved agricultural fields or improved grassland, however there are patches of deciduous woodland and pockets of species-rich floodplain meadows which provide key habitats in places;
- High landscape and cultural sensitivity overall as a result of the dispersed settlement pattern, pockets of historic parkland and predominantly rural character.

GUIDANCE

Guidance for Managing Landscape Change

Physical and ecological character

- **Manage, restore** and **thicken** hedgerows for landscape structure and biodiversity;
- **Ensure** effective catchment management to sustain water quality;

- **Encourage** conservation of existing key habitats and landscape features and expand the resource through habitat restoration and re-creation guided by ecological networks;
- **Seek** opportunities to revert arable farmland to permanent pasture, particularly in floodplains or areas of archaeological interest;
- **Create** small native broadleaf woodlands (including characteristic copses by farmsteads) and actively managing these to achieve a diverse age range;
- In arable areas, **introduce** and **manage** arable options such as conservation headlands, pollen and nectar mixes, to encourage birds, invertebrates and rare arable plants;
- **Restore, extend** and **link** existing fragmented areas of broadleaf woodland and actively manage these.

Cultural and Historic Character

- **Protect** the dispersed settlement pattern of villages, small hamlets and farmsteads;
- **Minimise** disturbance and damage to archaeological sites resulting from cultivation;
- **Strengthen** historic field systems and patterns through hedgerow planting and management;
- **Minimise** disturbance and damage to archaeological sites resulting from cultivation;
- **Conserve** and **enhance** local vernacular through restoration of traditional farmsteads, farm buildings and cottages and use of traditional materials (mottled brick and pantile) in conservation projects;
- **Protect** historic landscape features deserted medieval village, castles and moated sites;
- **Strengthen** historic field patterns through hedgerow restoration and management;
- **Protect** and **manage** parklands, retaining veteran tress and reintroducing wood pasture.

Aesthetic and Perceptual Character

- **Protect** the predominantly rural character and associated sense of tranquillity;
- **Maintain** key views to adjacent Landscape Character Types;
- **Protect** and **enhance** public enjoyment of the landscape, including appreciation of the sense of escapism it provides, through identifying opportunities to create new circular routes or links to existing public rights of way.

Signposts to Further Characterisation Information

National Character Area

- NCA 24: Vale of Mowbray;
http://www.naturalengland.org.uk/ourwork/landscape/englands/character/areas/vale_of_mowbray.aspx
- NCA 23: Tees Lowlands
http://www.naturalengland.org.uk/ourwork/landscape/englands/character/areas/tees_lowlands.aspx

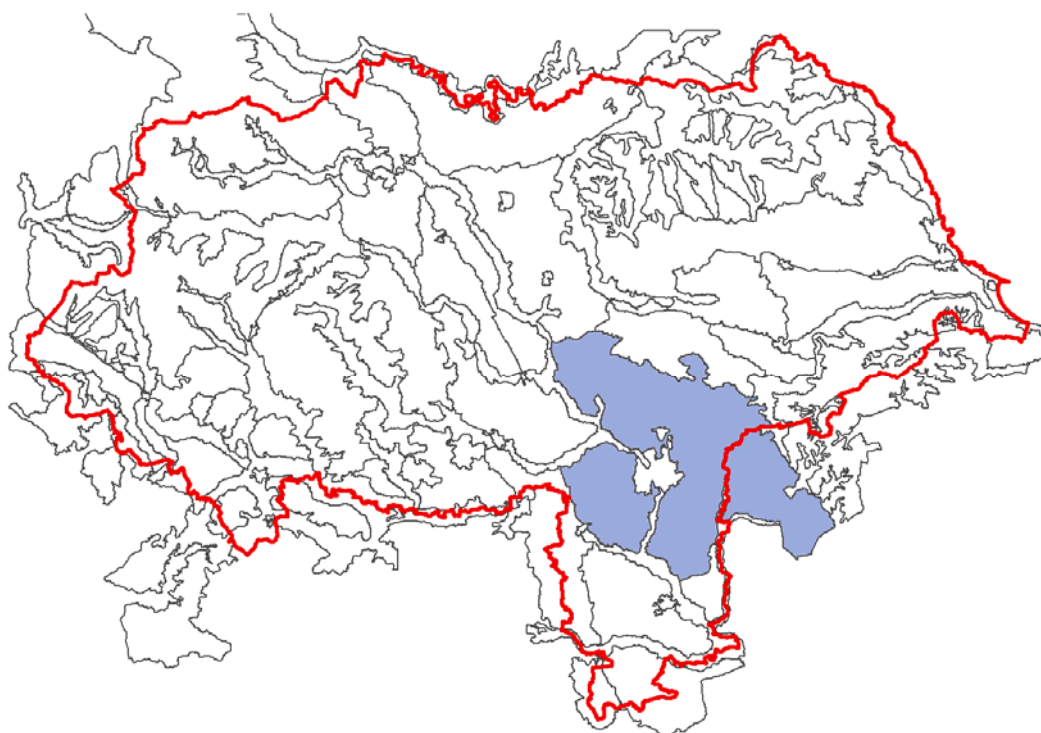
Local Landscape Character Assessments

- Hambleton Landscape Character Assessment (1991)

Adjacent Landscape Character Assessments

- County Durham Landscape Character Assessment (2008)
<http://www.durham.gov.uk/Pages/Service.aspx?ServiceId=6397>

Vale Farmland with Plantation Woodland and Heathland (28)



CHARACTERISATION

Key Characteristics

- A patchwork of low lying, predominantly arable fields, often delineated by a network of mature hedgerows and interspersed with patches of regular-shaped mixed and coniferous plantation woodlands;
- Large heathlands are key features on sandy soils;
- Distant visual containment is provided by higher Landscape Character Types to the east and west;
- Strong sense of openness throughout much of this Landscape Character Type;
- Scattered settlement pattern of towns, villages and farmsteads within the landscape around the main historic City of York (which forms part of the Urban Landscapes Primary Landscape Unit);
- A network of trunk roads linking the larger settlements and towns.

Description

- 5.7.9 This low-lying, gently undulating vale landscape is enclosed to the west by rising landscape of the Magensian Limestone Ridge Landscape Character Type and to the east by the Wooded Hills and Valleys and Chalk Wolds Landscape Character Types. Small patches of coniferous and mixed woodland are scattered across the landscape, which provide a sense of enclosure in places. Large rivers (such as the Ouse, Foss, Kyle and Derwent) and small stream corridors are also key landscape and ecological features. Remnant grasslands including 'Ings' meadows on the river floodplain and numerous scattered farmsteads and small villages contribute to a diverse landscape pattern. The landscape encompasses a patchwork of arable fields which are generally delineated by hedgerows. Copses and shelterbelts are also key features. Fragmented areas of heathland are present on sandy soils (for example at Strensall, Allerthorpe and Skipwith). Despite the presence of villages and towns, there is a sense that this is a

predominantly rural landscape. Pockets of parkland associated with country houses such as Rufforth Hall Park, Beningborough Hall and Bilton Hall contribute to a diverse and interesting landscape pattern. Views to surrounding higher landscapes contribute to recognisable sense of place.

Definitive Attributes

Geology	<ul style="list-style-type: none"> The bedrock geology is overlain with a series of surface deposits Diamicton occurs towards the edges of the vale Sand and gravel river terraces and clay and silt deposits are evident in the centre of the Vale adjacent to the rivers
Topography & Drainage	<ul style="list-style-type: none"> Broad, low-lying vale landscape which is enclosed to the west by the rising ground of the Magensian Limestone Ridge and to the east by the Chalk Wolds and Wooded Hills and Valleys
Land Cover	<ul style="list-style-type: none"> The land cover is predominantly arable interspersed with areas of improved grassland and numerous pockets of coniferous plantation woodland Several large areas of lowland heathland (Strensall Common, Allerthorpe Common and Skipwith Common are key landscape features)
Enclosure / Field Pattern	<ul style="list-style-type: none"> Large areas of modern improved fields which have seen a large degree of boundary loss since the first edition OS map cover much of this area Significant areas of planned parliamentary enclosures which consist of medium sized regular fields defined by straight hedges
Settlement Pattern	<ul style="list-style-type: none"> Scattered settlement pattern of villages and farmsteads which are situated with the landscape surrounding the historic city of York Towns at the periphery of York (such as Haxby) are also key features Traditional farm buildings and associated features Local vernacular materials include mottled brick and pantile
Visible Historic Features	<ul style="list-style-type: none"> Catterton Hall moated site and adjacent building platform Two Roman forts, two Roman camps, vicus, Iron Age enclosure, Bronze Age barrows and Neolithic henge monument west of Newton Kyme Beningborough old deer park Rufforth Hall Park Bilton Hall Humberton DMV Sheriff Hutton Castle and Deer Park Ornamental parkland associated with Moreby Hall consisting of extant ornamental parkland with formal gardens Aldby Park Skipwith Common National Nature Reserve with airfield Long Marston battlefield

EVALUATION

Forces for Change

Agricultural Change and Land Management

- Lack of management of existing plantation woodlands can lead to gradual decline;
- Gradual increase in woodland planting related to woodland management schemes;
- Neglect in hedgerow management, leading to a decline in the quality of hedgerows;
- Neglect of parklands, resulting in a loss of characteristic features;
- Decline in grasslands as a result of grazing pressure.

Development and Infrastructure

- Pressures for housing and industry around York, towns and villages along main road corridors, and on redundant airfields can impact on rural character;

- New development within historic villages may not be consistent with the historic form of the village and the vernacular materials and design of buildings;
- There is pressure for the development of infrastructure within the vale possibly including new housing and commercial facilities, overhead transmission lines and cables, pipelines, roads, energy and services infrastructure;
- Pressure on farm businesses is likely to lead to changes in land management and diversification of farm businesses, which may lead to the creation of new landscape features, such as fishing ponds

Climate Change

- Flooding is likely to pose an increased risk in lowland areas and farmers should consider planting flood resistant crops in flood plains wherever possible;
- Agriculture will have to adapt to use less water, carbon and other resources, and reduce runoff of water, soil, fertiliser and pesticides into adjacent watercourses. There is potential to introduce buffer zones to water courses.

Mineral Extraction

- Watercourses are sensitive to pollution from mineral extraction;
- The effect of lorries and traffic in rural areas should be considered as they have the potential to introduce noise and congestion.

Sensitivity to Change Issues

- Moderate visual sensitivity overall. Whilst there is a strong sense of openness within much of the farmland as a result of the flat or gently undulating topography, patches of plantation woodland disrupt views to adjacent Landscape Character Types in places;
- Moderate ecological sensitivity overall. Much of this Landscape Character Type comprises improved agricultural fields. There are, however, large areas of lowland heathland at Strensall Common, Allerthorpe Common and Skipwith Common and a network of remnant lowland heaths outside these major areas which provide key ecological habitats and are designated for their ecological value;
- Moderate landscape and cultural sensitivity overall. In places, historic landscape patterns are compromised by modern developments and infrastructure and hedgerows are gappy. There are, however, numerous historic landscape features present, including parkland landscapes, historic villages and prehistoric earthworks.

GUIDANCE

Guidance for Managing Landscape Change

Physical and ecological character

- **Manage, restore** and **thicken** hedgerows for landscape structure and biodiversity;
- **Replace** and **plant** new hedgerow trees;
- **Retain** and bring back into active management existing copses, shelterbelts and small woodlands to improve carbon storage levels and aid water infiltration;
- **Plan** for the significant extension and enhancement of riparian and wetland habitats assisting the adaptation of biodiversity to climate change and aid flood management;
- **Seek** opportunities for wetland creation and restoration.
- **Ensure** effective catchment management to sustain water quality;
- **Encourage** conservation of existing key habitats and landscape features and expand the resource through habitat restoration and re-creation guided by ecological networks;
- **Seek** opportunities to revert arable farmland to permanent pasture, particularly in floodplains or areas of archaeological interest;

- **Introduce** arable conservation headlands, pollen and nectar mixes, to encourage birds, invertebrates and rare arable plants;
- **Incorporate** miscanthus and short rotation coppice into the landscape – keeping plantations relatively small, in scale with local woodland cover (and avoid planting on pasture or obscuring water courses or historic features);
- **Restore, extend and link** existing fragmented areas of broadleaf woodland and actively manage these;
- **Protect, enhance and link** existing areas of lowland heathland to increase habitat linkages.

Cultural and Historic Character

- **Protect** the scattered settlement pattern of towns, villages and farmsteads and avoid settlement on the floodplain;
- **Conserve and enhance** local vernacular (mottled brick and pantile) through restoration of traditional farmsteads, farm buildings and associated features;
- **Minimise** disturbance and damage to archaeological sites resulting from cultivation;
- **Strengthen** historic field systems and patterns through hedgerow planting and management;
- **Protect and manage** parklands, retaining veteran trees and reintroducing wood pasture
- **Ensure** that highway improvement schemes respect and reflect local character and encourage the use of traditional signage where possible;
- **Protect** the setting of historic buildings such as Rufforth, Beningborough and Bilton Halls;
- **Seek** opportunities for educational access to historic farm buildings and to interpret the farmed environment.

Aesthetic and Perceptual Character

- **Conserve** open views along and across the river floodplains towards adjacent Landscape Character Types;
- **Protect and enhance** public enjoyment of the landscape, including appreciation of the sense of escapism it provides, through identifying opportunities to create new circular routes or links to existing public rights of way.

Signposts to Further Characterisation Information

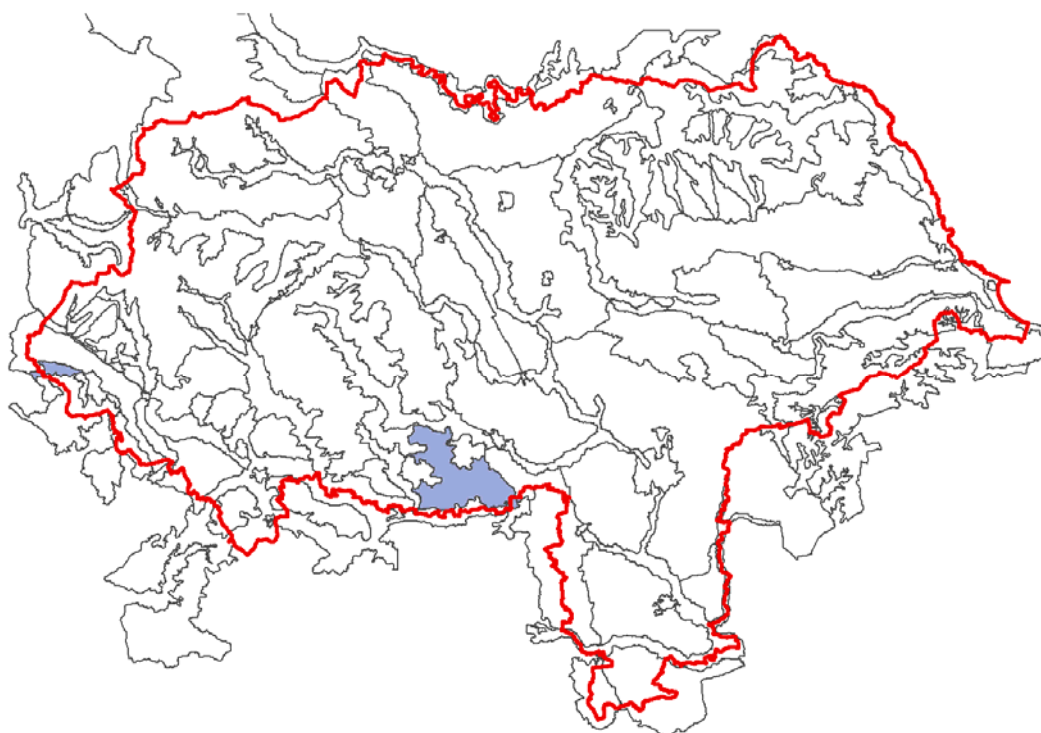
National Character Area

- NCA 24: Vale of York
http://www.naturalengland.org.uk/Images/jca80_tcm6-5676.pdf

Local Landscape Character Assessments

- York Landscape Appraisal (December 1996)
- http://www.york.gov.uk/environment/Planning/Local_development_framework/LDF_Evidence_base/landscapecharacterappraisal/
- Selby Landscape Character Assessment (1999)

Undulating Lowland Farmland (29)



CHARACTERISATION

Key Characteristics

- Many mixed farm woodlands, copses and hedgerow trees;
- Intricate tapestry of grazed fields;
- A patchwork of wood and pasture when viewed from surrounding higher landscapes;
- A scattered settlement pattern of small hamlets, villages and isolated farmsteads;
- Intimate-scale landscape, with a strong sense of tranquillity in places;
- Dry stone walls delineate fields.

Description

- 5.7.10 The Undulating Lowland Farmland Landscape Character Type is situated to the southwest of Harrogate and also at the western edge of the Study Area (within the Forest of Bowland AONB). This lowland landscape, largely under 150m, has its underlying geology masked by heavy boulder clays deposited by glacial activity. Viewed from higher locations and adjacent Landscape Character Types, this enclosed landscape comprises a rich patchwork of pastures, mixed farm woodlands, copses, hedgerows and scattered picturesque stone villages. The small villages consist of stone houses and cottages and the churches provide landmarks in the landscape. Isolated farmsteads are often marked with single mature trees. Quarries and mines can also be found. Winding lanes are lined with hedgerows and herb rich verges, and hedges with mature trees clearly delineate the pastures and meadows in summer and autumn time. Dry stone walls are only seen as boundaries in the areas where boulder clay is absent. This is an intimate and scenic landscape, where there is a relatively strong sense of tranquillity in many places.

Definitive Attributes

Geology	<ul style="list-style-type: none"> The bedrock geology is overlain with a series of surface deposits Covered in predominantly superficial deposits of boulder clay
Topography & Drainage	<ul style="list-style-type: none"> Low lying, gently undulating farmland which generally occurs below 150m AOD.
Land Cover	<ul style="list-style-type: none"> The land cover is predominantly pastoral, improved grassland, interspersed with patches of mixed woodland and lowland herb-rich haymeadows
Enclosure / Field Pattern	<ul style="list-style-type: none"> Large areas of piecemeal enclosure, combined with significant areas of planned parliamentary enclosures which consist of medium sized regular fields defined by straight hedges
Settlement Pattern	<ul style="list-style-type: none"> scattered settlement pattern of small hamlets, villages and isolated farmsteads; Traditional farm buildings and associated features
Visible Historic Features	<ul style="list-style-type: none"> Remain of Roman kilns Small historic woodland clearances

EVALUATION

Forces for Change

Agricultural Change and Land Management

- Decline in grasslands as a result of grazing pressure.
- A decline in mature hedgerow trees as a result of age or loss due to agricultural intensification;
- Intensification of agricultural management, involving chemical fertiliser and herbicide applications, which has affected herb-rich meadows;
- Neglect of drystone wall management

Development and Infrastructure

- Expansion of villages or modernisation of farmsteads utilising non-local building materials (e.g. red brick) which are intrusive to local vernacular character;
- Amalgamation and diversification of dairy farms;
- Pressure on farm businesses is likely to lead to changes in land management and diversification of farm businesses, which may lead to the creation of new landscape features, such as fishing ponds

Climate Change

- Flooding is likely to pose an increased risk in lowland areas and farmers should consider planting flood resistant crops in flood plains wherever possible;
- Agriculture will have to adapt to use less water, carbon and other resources, and reduce runoff of water, soil, fertiliser and pesticides into adjacent watercourses. There is potential to introduce buffer zones to water courses.

Sensitivity to Change Issues

- Moderate visual sensitivity overall. In places, woodland and hedgerows limit views, whilst in places there is strong intervisibility with adjacent Landscape Character Types;
- Moderate ecological sensitivity overall as a result of the combination of hedges, hedgerow tree small stream corridors which provide key habitats;
- Moderate landscape and cultural sensitivity overall, resulting from the predominantly intact network of drystone walls, mature hedgerows and hedgerow trees.

GUIDANCE

Guidance for Managing Landscape Change

Physical Ecological Character

- **Conserve** and enhance woodland, hedges and stone walls;
- **Link** existing woodlands and hedgerows to create a continuous woodland network to reverse habitat fragmentation;
- **Create** new hedgerows and regenerate existing hedges to maintain and enhance key landscape linkages;
- **Conserve** the lowland herb-rich haymeadows and unimproved neutral grasslands;
- **Encourage** conservation of existing key landscape features and habitats;
- **Encourage** habitat linkage to increase robustness to climate change;
- **Ensure** that verges are managed to maximise floristic biodiversity value.

Cultural and Historic Character

- **Encourage** conservation of significant historic features and buildings;
- **Avoid** road widening, improvement works, cable and pipeline laying which would affect species-rich grass verges;
- **Avoid** road improvements that would affect the setting or structure of stone bridges or walls;
- **Encourage** sympathetic new uses for disused farm buildings to ensure that they remain a viable and contributory feature within this landscape; and;
- **Encourage** the use of local building materials, in particular gritstone and limestone;
- **Ensure** that highway improvement schemes respect and reflect local character and encourage the use of traditional signage where possible;
- **Conserve** traditional boundary features, such as stone/metal boundary markers, signage and wells;
- **Maintain** stone walls, which are often located on the outskirts of villages, respecting local differences in style and construction.

Aesthetic and Perceptual Character

- **Conserve** open views towards the surrounding higher Moorland Plateaux and Unenclosed and Enclosed Moorland Hills Landscape Character Types;
- **Conserve** the distinctive settings to rural settlements;
- **Ensure** that any potential new development on the edges of villages reflects the characteristic clustered form; development should be sited to retain views to landscape features and landmarks, such as church towers on the approaches to villages.

Signposts to Further Characterisation Information

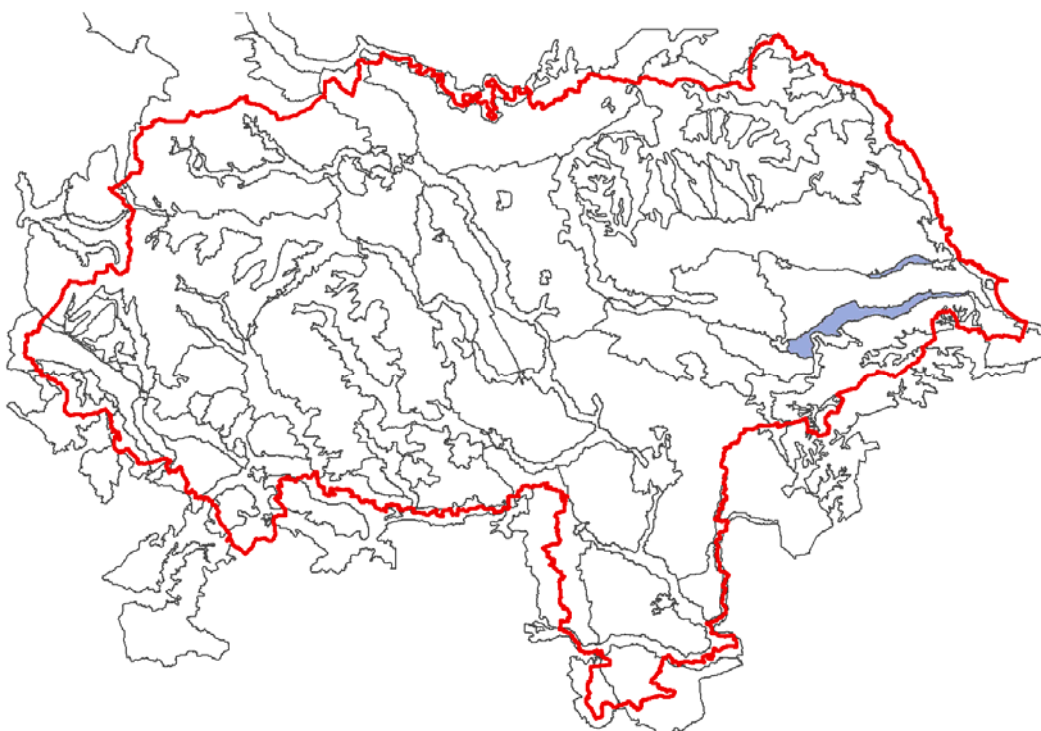
National Character Area

- NCA 22: Pennine Dales Fringe
http://www.naturalengland.org.uk/Images/jca22_tcm6-5676.pdf
- NCA 34: Bowland Fells
http://www.naturalengland.org.uk/Images/jca34_tcm6-5676.pdf

Local Landscape Character Assessments

- Forest of Bowland AONB Landscape Character Assessment (2009),
http://www.forestofbowland.com/landscape_character

Sand and Gravel Vale Fringe (30)



CHARACTERISATION

Key Characteristics

- Pockets of sand and gravel deposits which form a transition zone between the Vale of Pickering to the north and the Chalk Wolds to the south;
- Striking settlement pattern with villages located along the spring line;
- Historic course of roads which are located at the scarp foot;
- Buildings are predominantly constructed from chalk, reflecting their location in close proximity to supply from the Chalk Wolds to the south;
- Numerous archaeological sites which attest to previous human activity;
- Strong intervisibility with adjacent Enclosed Vale Farmland Landscape Character Type.

Description

This flat to gently sloping Landscape Character Type encompasses a series of sand and gravel superficial deposits which mark the transition between the Vale of Pickering (Enclosed Vale Farmland) to the north and the rising Chalk Wolds to the south. The rising escarpment of the Wolds creates a prominent back drop to this landscape. The width of the vale fringe landscape varies but is most distinctively marked on the edge of the Vale of Pickering where the A1039 runs parallel with the slope serving Folkton, Flixton and other farmsteads at the foot of the scarp. The chalk construction of traditional buildings in these villages clearly reflects their location close to the source of supply. Some parkland and historic landscapes concentrated around the perimeter of this Landscape Character Type contribute to a varied landscape pattern. Historically, evidence suggests that there was also an extensive Anglo-Saxon settlement at Heselton. Settlement pattern is concentrated along main transport routes on higher ground. This landscape contains numerous archaeological sites which attest to previous use of this landscape for settlement and early industry.

Definitive Attributes

Geology	<ul style="list-style-type: none"> • Predominantly sand and gravel superficial deposits
Topography & Drainage	<ul style="list-style-type: none"> • Forms a fringe between the low lying vale floor and the steeply rising ground of the Yorkshire Wolds escarpment • Springs have often determined the location of settlements • The soils are lighter and freer draining than those in the vale floor
Land Cover	<ul style="list-style-type: none"> • Arable fields interspersed with improved grassland and small patches of neutral and calcareous grassland
Enclosure / Field Pattern	<ul style="list-style-type: none"> • Large regular parliamentary enclosures defined by straight hedges are common • A more complex pattern of unknown planned enclosures, parliamentary enclosures and modern improved fields is present elsewhere
Settlement Pattern	<ul style="list-style-type: none"> • On the northern side of the Vale, villages and towns appear in close proximity to each other just above the old lake margin and at the foot of the limestone dip-slope. In this location water was obtainable from springs and shallow wells and the villages stood above flood level at the meeting place of contrasting soils • Villages are often located along the spring line • Strip parishes are conspicuous features in this Landscape Character Type; some extend far to the north and incorporate sections of the adjacent moorlands. A similar distribution of fringe villages appears on the southern boundary
Visible Historic Features	<ul style="list-style-type: none"> • Scampston Hall and designed landscape • Settrington deserted village earthworks • Seamer manor house

EVALUATION

Forces for Change

Agricultural Change and Land Management

- Pasture improvement, arable expansion, and drainage and cultivation of peats threaten prehistoric deposits, areas of ridge and furrow and other historic earthworks. Remnant grasslands around farmsteads often contains relict field systems which are vulnerable to changes to arable land use;
- Use of the area for pig rearing has led to soil erosion through rapid run-off and damage to archaeological ground features;
- Intensification of agriculture has led to field boundary and hedgerow tree loss, particularly on the northern and western edges of the vale, where hedges rather than ditches are characteristic.

Development and Infrastructure

- New development within historic villages may not be consistent with the historic form of the village and the vernacular materials and design of buildings;
- Disrepair of traditional farm buildings is causing their gradual decay. Conversion may provide an active use for the building, but has the potential to introduce standardised suburban elements into this predominantly rural landscape.

Sensitivity to Change Issues

- High visual sensitivity as a result of strong intervisibility with the Enclosed Vale Farmland Landscape Character Type and open views along the Sand and Gravel Vale Fringe;
- Low ecological sensitivity resulting from the fact that this landscape predominantly consists of improved agricultural fields;

- High landscape sensitivity as a result of the striking settlement pattern of villages located along the spring line, archaeological sites and designed landscapes.

GUIDANCE

Guidance for Managing Landscape Change

Physical and ecological character

- **Manage, restore** and **thicken** hedgerows for landscape structure and biodiversity;
- **Encourage** conservation of existing key habitats and landscape features and expand the resource through habitat restoration and re-creation guided by ecological networks;
- **Seek** opportunities to revert arable farmland to permanent pasture, particularly in floodplains or areas of archaeological interest;
- **Create** small native broadleaf woodlands (including characteristic copses by farmsteads) and actively managing these to achieve a diverse age range;
- **Incorporate** biomass crops such as miscanthus and short rotation coppice on small scale, particularly where they can contribute to the local landscape character, whilst retaining the long views that are characteristic of the area.

Cultural and Historic Character

- **Protect** the dispersed settlement pattern of villages along the spring line and farmsteads;
- **Strengthen** historic field systems and patterns through hedgerow planting and management;
- **Minimise** disturbance and damage to archaeological sites resulting from cultivation;
- **Address** the decline of historic buildings throughout the vale by repairing and restoring using traditional materials (typically brick and sandstone imported from surrounding uplands).

Aesthetic and Perceptual Character

- **Protect** the predominantly rural character and associated sense of tranquillity;
- **Support** sustainable recreation and educational access to enable understanding and appreciation of the environment, in particular its clear evidence of historic change at sites such as Star Carr;
- **Maintain** key views to adjacent Landscape Character Types;
- **Identify** opportunities to create new circular routes or links to existing rights of way, particularly linking to the Cleveland Way, Ebor Way and the Wolds Way long distance routes;
- **Protect** and **enhance** public enjoyment of the landscape, including appreciation of the sense of escapism it provides, through identifying opportunities to create new circular routes or links to existing public rights of way.

Signposts to Further Characterisation Information

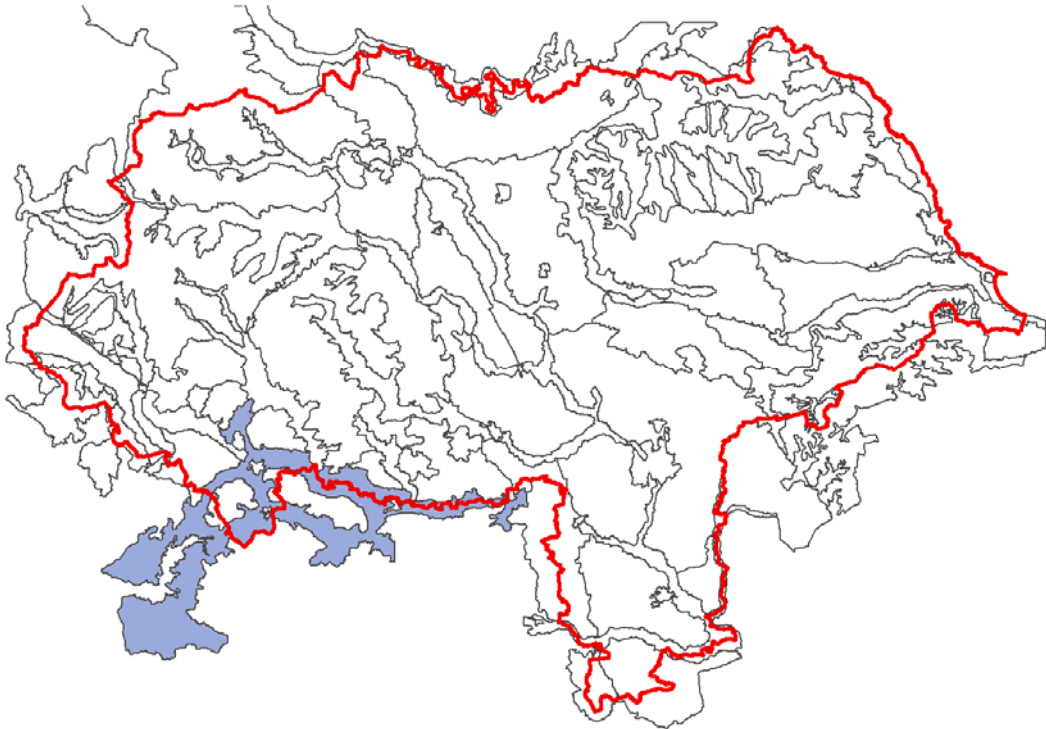
National Character Area

- NCA 26: Vale of Pickering
http://www.naturalengland.org.uk/ourwork/landscape/englands/character/areas/vale_of_pickering.aspx

Local Landscape Character Assessments

- Ryedale Landscape Character Assessment (1999)
- Scarborough Landscape Character Assessment (1994)

Settled, Industrial Valleys (31)



CHARACTERISATION

Key Characteristics

- Relatively broad valleys which are settled with villages and towns;
- Rivers flow through the valleys and are often crossed by road bridges;
- Numerous industrial heritage features;
- Historic parklands and wooded estates enclosing occasional country houses including Broughton Hall and Aireville Park;
- Fields predominantly consist of improved pasture divided by a network of drystone walls;
- Main road corridors often provide a source of noise and visual intrusion and disturb the overall sense of tranquillity;
- Views are often dominated by buildings.

Description

5.7.11 Located in the far south-western corner of the Study Area, this Landscape Character Type extends southwards to Ilkley in Bradford Metropolitan District, and south-westwards to the industrial towns of Nelson and Colne in Lancashire. The width and profile of the valleys vary greatly, from narrow and V-shaped to wide and flat bottomed. Elevation varies from approximately 90m AOD to 200m AOD, with the land typically rising to meet moorland above. The River Aire meanders across the floodplain of the widest valley. Becks or streams drain the smaller valleys. Valley slopes are occasionally steep but gentle and undulating in most places, and are dissected by narrow becks that drain the adjacent uplands. There is an absence of large woodlands, with the tree cover mainly consisting of scattered small plantations, copses and individual trees. Land cover outside the settlements is dominated by enclosed improved pastures. Field boundaries consist of mainly of dry stone walls and, occasionally, hedges and fences. Field patterns are relatively large and irregular in shape grazed mainly by sheep and cattle. Major transport routes pass along the valley floors, including the Leeds to Skipton railway, the A65, A59, A629 and A6068 roads and the Leeds to

Liverpool Canal, which hugs the northern side of the Aire Valley. Minor roads climb from the valley floor to connect with scattered farms and villages on the valley sides and adjacent moors. Villages on the valley sides are comprised of old stone buildings and isolated blocks of stone terraced houses. The character of the valleys is heavily influenced by settlements, with mixed industrial and commercial developments associated with the towns located on the edge of the Aire Valley. Numerous examples of industrial heritage act as reminders of the historical importance of local industrial development to the character of the landscape. Historic parklands and wooded estates enclose occasional country houses including Broughton Hall and Aireville Park.

Definitive Attributes

Geology	<ul style="list-style-type: none"> • The underlying geology largely comprises Sandstones and siltstones of the Mill Stone Grit Series. Bands of limestone and mudstone are present around Skipton while shales are present to the north of Skipton • Much of this area is covered by superficial deposits of till from the last glaciation (the Devensian) • Rivers have deposited alluvium within the flood plains which are bordered by river terrace deposits of sand and gravel
Topography & Drainage	<ul style="list-style-type: none"> • The U-shaped valleys are large scale and broad with sides that gently undulate as they slope down from the upland moor to the flat valley floor. The lower Wharfe Valley runs eastwards towards the Humber Estuary • The Rivers Wharfe and Aire meander across the a narrow floodplains
Land Cover	<ul style="list-style-type: none"> • Predominantly improved pasture with small areas of unimproved grassland and some arable production on south facing slopes • Patches of broadleaf woodland, including ancient semi-natural woodlands are common in the area particularly alongside small becks • A small proportion of the land is covered by urban development which is usually situated in the valley floor • Herb-rich stream banks
Enclosure / Field Pattern	<ul style="list-style-type: none"> • Piecemeal enclosures are common in the west of this area and some of these are thought to be ancient enclosures. These areas are characterised by irregular dry stone wall boundaries • To the east of this area post medieval planned enclosures and parliamentary enclosures tend to predominate • There are significant areas of modern improved fields with straight hedgerow boundaries, particularly in the east of this area
Settlement Pattern	<ul style="list-style-type: none"> • Major transport routes pass along the valley floors. The character of the valleys is heavily influenced by settlements, with mixed industrial and commercial developments associated with the towns located on the edge of the Aire Valley • Minor roads climb from the valley floor to connect with scattered farms and villages on the valley sides and adjacent moors. Villages on the valley sides are comprised of old stone buildings and isolated blocks of stone terraced houses • Historic parklands and wooded estates enclose occasional country houses including Broughton Hall and Aireville Park
Visible Historic Features	<ul style="list-style-type: none"> • Elslack Roman fort • Lime kiln at Draughton • Embsay and Bolton Abbey steam railway • Roman Road on Vicars Allotment • Rougemont Castle • Broughton Hall near Skipton is a listed building within a designated parkland setting • A Roman road and Roman Fort are present in the area • Bolton Priory lies within Wharfedale • Earthworks associated with Rougemont Castle

EVALUATION

Forces for Change

Agriculture and Land Management

- Lack of management has led to many drystone walls falling into a state of disrepair;
- Pressure associated with urban fringe farmland, such as vandalism of field boundaries and fly tipping;
- Horsiculture – pockets of pasture which have been converted to stables with associated proliferation of fences and associated equipment;
- Lack of management of hedgerow and field trees resulting in decline and eventual loss.

Development and Infrastructure

- Pressure from leisure, tourism and recreation activities particularly around the urban fringe which could be out of context with existing landscape scale and character;
- It is likely, that in the future, opportunities will be sought for maximising the potential of the urban fringe for recreation, both for formal uses such as golf courses and for other informal recreational pursuits.;
- The construction of new roads and bypasses and the widening or realignment of existing roads can also have an impact on landscape character, introducing new elements which are not consistent with local landscape character.

Climate Change

- Farmers may benefit from a longer growing season while woodland trees are expected to grow well
- Settlements within the floodplain are likely to be increasingly vulnerable to flooding with the expected increase in heavy rainfall events.

Mineral Extraction

- Past sand and gravel extraction within river valleys, together with opencast coal mining, clay workings and stone quarrying has left a legacy of derelict and degraded land
- Mineral extraction and opencast mining can seriously affect tracts of agricultural land, changing the land form resulting in the loss of characteristic landscape features such as hedgerows, mature trees, areas of semi-natural vegetation and historical features. Such effects on the landscape are likely to continue as there is still a demand for sites for the extraction of sandstone, clay, coal and limestone within this Landscape Character Type;
- Once extraction has ceased there are opportunities for enhancement of the sites through sensitive restoration. In areas which have become derelict and degraded, and where the original character of the landscape has been lost, there are significant opportunities for the creation of new landscapes. Reclamation and environmental enhancement is bringing about significant change in areas such as the Lower Aire and the Wharfe Valleys
- The demand for landfill sites looks set to continue. This has potential landscape implications for the landscape, particularly if the level of the ground is raised through waste tipping;
- Screening of tips or mineral extraction sites can also introduce alien features into the landscape if insensitively designed.

Sensitivity to Change Issues

- High visual sensitivity overall as a result of strong intervisibility with adjacent higher Landscape Character Types;
- Low ecological sensitivity overall, resulting from the predominance of improved agricultural fields and extraction sites;

- Moderate landscape and cultural sensitivity overall. Whilst much of this landscape has been altered by industrial-related development, there is strong historic integrity, with numerous industrial heritage features forming key features.

GUIDANCE

Guidance for Managing Landscape Change

Physical and ecological character

- **Manage, restore** and **thicken** hedgerows for landscape structure and biodiversity;
- **Encourage** conservation of existing key habitats and landscape features and expand the resource through habitat restoration and re-creation guided by ecological networks;
- **Seek** opportunities to revert arable farmland to permanent pasture, particularly in floodplains or areas of archaeological interest;
- **Incorporate** biomass crops such as miscanthus and short rotation coppice on small scale, particularly where they can contribute to the local landscape character, whilst retaining the long views that are characteristic of the area;
- **Conserve** and **enhance** herb-rich stream banks;
- **Encourage** conservation of existing key landscape features and habitats;
- **Encourage** habitat linkage to increase robustness to climate change;
- **Discourage** intensive agricultural practices, such as drainage and fertilisation, in areas with species-rich grasslands, hay and wet meadows;

Cultural and Historic Character

- **Protect** the rich collection of historic landscape features including archaeological sites, Roman Forts and historic buildings;
- **Protect** and **enhance** the settings of Broughton Hall and Aireville Park, Rougemont Castle, Broughton Hall and Bolton Priory;
- **Protect** the pattern of historic villages;
- **Minimise** disturbance and damage to archaeological sites resulting from cultivation;
- **Strengthen** historic field patterns through hedgerow restoration and management;
- **Encourage** conservation of significant historic features and buildings of industrial and other heritage;
- **Ensure** that any potential new urban development includes a robust planting of native tree and shrub planting at the edges;
- **Encourage** the use of local building materials, in particular gritstone and limestone;
- **Ensure** that highway improvement schemes respect and reflect local character and encourage the use of traditional signage where possible.

Aesthetic and Perceptual Character

- **Maintain** key views to adjacent Landscape Character Types;
- **Identify** opportunities to create new circular routes or links to existing rights of way,
- **Protect** and **enhance** public enjoyment of the landscape, including appreciation of the sense of escapism it provides, through identifying opportunities to create new circular routes or links to existing public rights of way.

Signposts to Further Characterisation Information

National Character Area

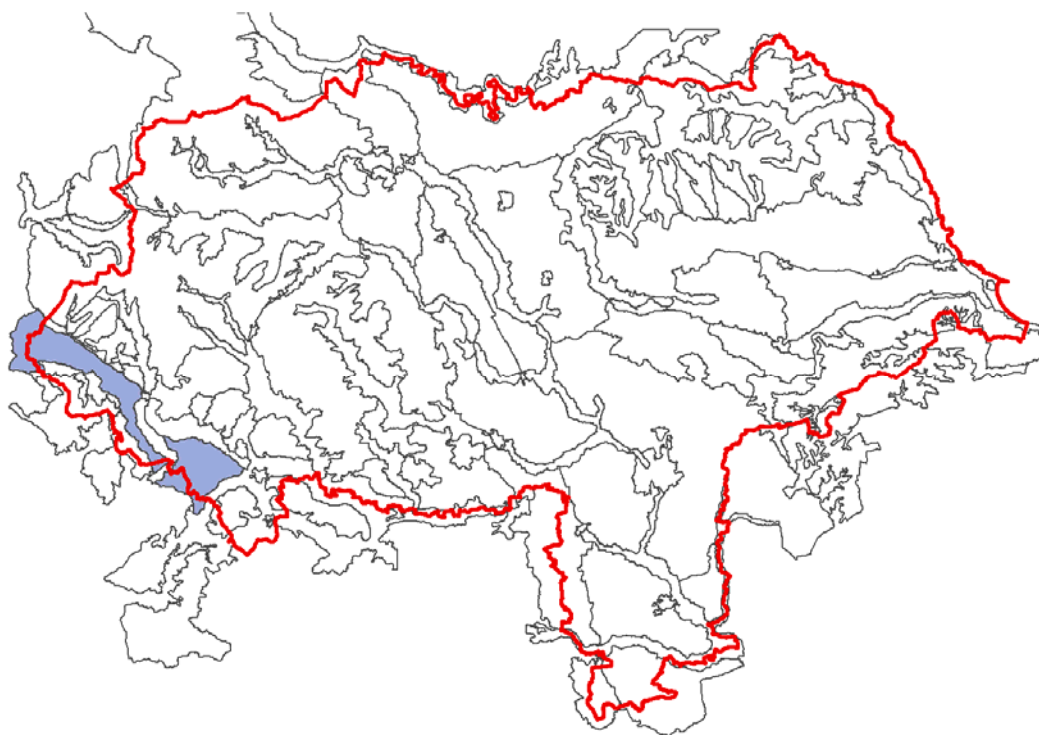
- NCA 21: Yorkshire Dales
http://www.naturalengland.org.uk/ourwork/landscape/englands/character/areas/yorkshire_dales.aspx
- NCA 36: Southern Pennines
http://www.naturalengland.org.uk/ourwork/landscape/englands/character/areas/southern_pennines.aspx
- NCA 35: Lancashire Valleys
http://www.naturalengland.org.uk/ourwork/landscape/englands/character/areas/lancashire_valleys.aspx
- NCA 22: Pennine Dales Fringe
http://www.naturalengland.org.uk/ourwork/landscape/englands/character/areas/pennine_dales_fringe.aspx
- NCA 37: Yorkshire Southern Pennine Fringe
http://www.naturalengland.org.uk/ourwork/landscape/englands/character/areas/yorkshire_southern_pennine_fringe.aspx

Local Landscape Character Assessments

Adjacent Landscape Character Assessments

- Bradford Landscape Character Assessment (2008)
http://www.bradford.gov.uk/bmdc/the_environment/planning_service/local_development_framework/landscape_character_assessment_SPD.htm
- Leeds Landscape Character Assessment (1994)
<http://www.leeds.gov.uk/page.aspx?pageidentifier=a26ee2bc-3bd5-4e65-8b4e-fcd9a98a5b88>

Drumlin Valleys (32)



CHARACTERISATION

Key Characteristics

- Distinctive drumlin landform containing the recognisable ‘basket of eggs’ topography which displays a series of smooth, rounded hills rising from lower landscapes;
- Hedgerows, hedgerow trees provide a localised sense of enclosure;
- Landscape pattern comprises a series of medium sized, predominantly pastoral fields often lined with drystone walls and occasional hedgerows;
- Predominantly rural character with associated relatively strong sense of tranquillity;
- Country houses and associated designed landscapes which are key landscape features in places;
- Clumps of trees are landscape features;
- Small rivers corridors which meander amongst the drumlin fields.

Description

This Landscape Character Type characterised by a ‘field’ of rolling drumlins. These distinctive, elongated oval shaped hillocks have a consistent orientation giving the landscape a uniform grain. The undulating drumlin topography limits views from within and provides views from drumlin tops. Small areas of solid rock outcrops lie within the drumlin field where the underlying bedrock is exposed. Gently meandering narrow river corridors often flow between the drumlins creating visual interest. The landscape is predominantly rural with isolated historic farms, hamlets and villages linked by winding lanes. Pasture predominates and fields are bounded by trimmed hedges or, more often, stone walls. Ridge and furrow patterns on the drumlin sides impart a sense of time depth to the landscape. Narrow streams wind through the drumlin field. Numerous designed landscapes associated with large country houses impart an ordered appearance to the landscape in places. Small mixed woodlands contribute to the strong rural, wooded character and provide a localised sense of enclosure. Numerous roads

cross or skirt the edge of the drumlin fields. Settlement is dispersed, with small hamlets and farmsteads located in sheltered sites between the drumlins.

Definitive Attributes

Geology	<ul style="list-style-type: none"> • Underlain by a succession of different rocks, although more recent drift deposits mask much of the solid geology • Deposition of material during the most recent Quaternary geological era has been particularly important in moulding and modifying the more local landform patterns • The Craven Faults have produced a notable escarpment and juxtaposition of different rocks • Drumlins (glacial meltwater deposits) are a characteristic feature of this area
Topography & Drainage	<ul style="list-style-type: none"> • The western part of this area comprises a broad basin gently dissected by the River Greta and River Wenning • The River Aire flows within broad valleys with a number of tributaries creating complex landforms • Well-defined drumlin landscape with characteristic moulded rolling hills forming a distinctive pattern
Land Cover	<ul style="list-style-type: none"> • Permanent pasture is the dominant land cover in this area • Mosaic of improved, neutral and calcareous grassland reflecting different substrates and farming practices • Small areas of deciduous woodland often lining water courses • Inter-drumlin wetlands
Enclosure / Field Pattern	<ul style="list-style-type: none"> • Areas of residual unenclosed moorland • Complex pattern of ancient enclosures, piecemeal enclosures with irregular field boundaries, unknown planned enclosures with medium sized fields and parliamentary enclosures with regular field boundaries
Settlement Pattern	<ul style="list-style-type: none"> • The landscape is predominantly rural with isolated historic farms, hamlets and villages linked by winding lanes • A series of small, compact, evenly spaced villages
Visible Historic Features	<ul style="list-style-type: none"> • Leeds and Liverpool canal with road bridges and settlement sometimes grown alongside it • Dispersed settlement pattern of scattered farmsteads • Ridge and furrow field patterns, with lynchets on hill slopes • Yarl's Camp • Castle Hill motte and bailey castle • Enclosure on Stealing Hill • Moated site west of Paget Hall • Roman villa at Kirk Sink • Site of Old Hall • Gledstone Hall historic park and garden

EVALUATION

Forces for Change

Agricultural Change and Land Management

- The mature hedgerow and wall networks contribute to a recognisable landscape pattern and if not managed or supported through agri-environment payments, could fall out of active management. This could have a significant effect on both biodiversity and landscape character;
- More extensive farming of livestock could also lead to a loss of key landscape features through neglect or removal to enable the amalgamation of adjacent fields;
- Amalgamation of farms may influence field sizes and field boundaries and field expansion could weaken the strong field pattern and reduce ecological interest.

- Neglect of farm woodlands, over mature field trees and prominent hill top copses could result in decline and eventual loss.

Development and Infrastructure

- Sustained pressure to develop renewable energy resources could lead to increased pressure for development on visually sensitive skylines;
- Development of telecommunication masts of other tall structures could also be visually prominent if sited on visually sensitive skylines (such as on top of the drumlins);
- Loss of vernacular building styles and use of inappropriate building materials resulting in the loss of local landscape characteristics;
- Pressure for highway improvements along predominantly rural road corridors, resulting in the introduction of standardised designs which are not consistent with local character.

Climate Change

- Climate change could have an impact on agricultural practices and there could be a move in the future to plough up pasture and plant new crops. This landscape is currently predominantly pastoral and conversion could potentially result in a loss of boundary features or damage to archaeological features and historic landforms such as ridge and furrows. Ploughing also reduces the biodiversity of species rich grasslands.

Sensitivity to Change Issues

- High visual sensitivity as a result of the predominantly open character and strong intervisibility with adjacent Landscape Character Types;
- Moderate landscape and cultural sensitivity as a result of the pattern of landscape features, including stone walls, hedgerows and pockets of woodland, coupled with the presence of archaeological sites on the drumlins;
- Moderate ecological sensitivity, resulting from pockets of species-rich grassland and remnant mires, some of which are designated as SSSI for the key habitats that they provide.

GUIDANCE

Guidance for Managing Landscape Change

Physical and Ecological Character

- **Increase** the proportion of woodland cover through small-scale copse planting;
- **Establish** localised and long distance ecological networks that extend beyond the Drumlin Fields;
- **Seek** opportunities for the re-introduction of traditional management of coppiced woodlands;
- **Conserve** and **maintain** distinctive clumps of trees;
- **Conserve** semi-natural habitats, such as grasslands and inter-drumlin wetlands;
- **Conserve** and **restore** inter-drumlin wetlands and semi-natural grasslands wherever these occur;
- **Encourage** continued management of the hedgerow network;
- **Avoid** loss or damage to mature field trees through intensification of agricultural practices.

Cultural and Historic Character

- **Conserve** the distinctive rolling landform by minimising vertical elements such as communication masts and windfarms;
- **Avoid** built development on ridgelines and hilltops.

- **Conserve** the intact network of limestone walls at field boundaries, which contribute to distinctive landscape pattern;
- **Avoid** ribbon development which may detract from the characteristic dispersed pattern of groups of buildings in a rural setting;
- **Restrict** built development on the skyline of drumlins; buildings should be sited on the mid-slopes, above poorly drained land;
- **Encourage** the repair of stone walls where in decline or dilapidated, utilising local vernacular materials (limestone);
- **Conserve** the dispersed pattern of stone villages, hamlets and farmsteads located in sheltered locations on the mid-slopes of the drumlins;
- **Conserve** the archaeological and historic environment in order to maintain a rich cultural landscape;
- **Ensure** that highway improvement schemes respect and reflect local character and encourage the use of traditional signage where possible;

Aesthetic and Perceptual Character

- **Maintain** the predominantly open character of the landscape;
- **Protect** key views to and from the area from tall and vertical large-scale developments that may erode the open and undeveloped character of the area;
- **Shelter** built development within the undulating landform and seek to avoid ridgelines or hill tops.

Signposts to Further Characterisation Information

National Character Area

- NCA 33: Bowland Fringe and Pendle Hill
http://www.naturalengland.org.uk/ourwork/landscape/englands/character/areas/bowland_fringe_and_pendle_hill.aspx
- NCA 35: Lancashire Valleys
http://www.naturalengland.org.uk/ourwork/landscape/englands/character/areas/lancashire_valleys.aspx
- NCA 21: Yorkshire Dales
http://www.naturalengland.org.uk/ourwork/landscape/englands/character/areas/yorkshire_dales.aspx

Local Landscape Character Assessments

- Craven Landscape Character Assessment (2002)
<http://www.cravenc.gov.uk/Craven/Residents/PlanningServices/PlanningPolicy/LDF/BackgroundStudies/LandscapeCharacterAssessment/>
- Yorkshire Dales National Park Landscape Character Assessment (2001)
http://www.yorkshiredales.org.uk/index/learning/landscape_character.htm

Adjacent Landscape Character Assessments

- Forest of Bowland AONB Landscape Character Assessment (2009),
http://www.forestofbowland.com/landscape_character

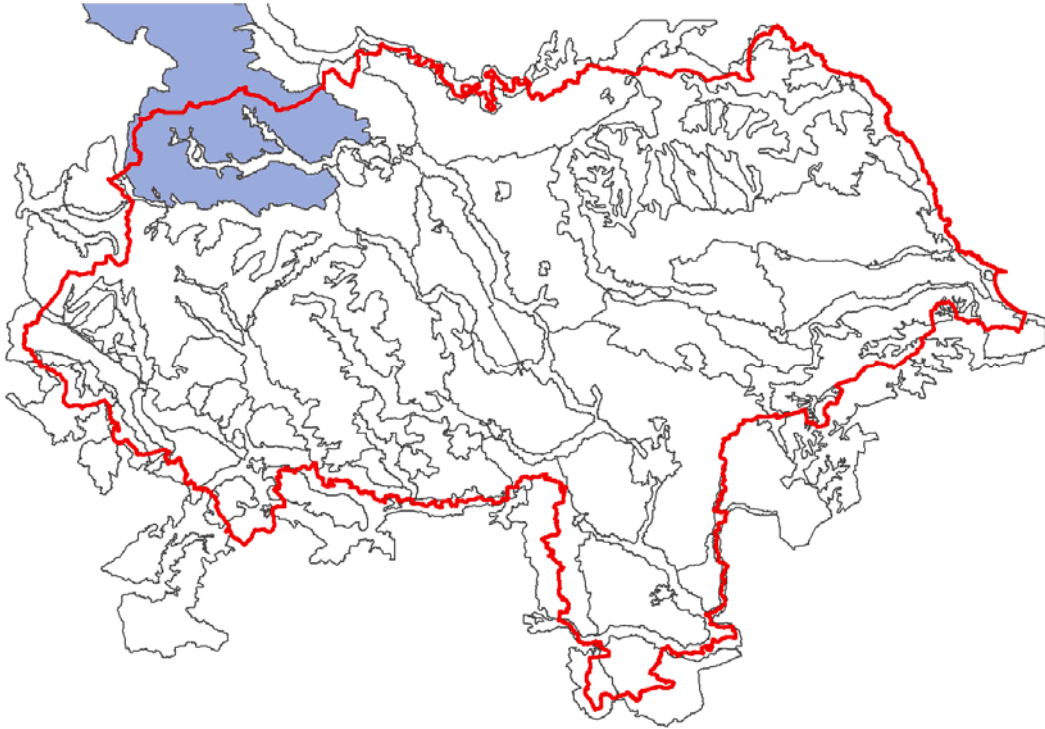
5.8 Gritstone Landscapes

5.8.1 The Gritstone Landscapes occur in two broad locations within the western half of the Study, to the north and south of the Yorkshire Dales National Park.

5.8.2 The following Landscape Character Types form the Gritstone Landscapes Primary Landscape Unit:

- Gritstone High Plateau (33)
- Gritstone High Moors and Fells (34)
- Gritstone Low Moors and Fells (35)
- Gritstone Valley (36)

Gritstone High Plateau (33)



CHARACTERISATION

Key Characteristics

- Blanket bog
- Characteristic moorland vegetation composed of heather and dwarf shrubs
- Flat upland plateau
- Important upland bird assemblages
- Expansive, undeveloped character
- Open skylines and extensive views;
- Strong sense of tranquillity and remoteness throughout, with associated dark night skies;
- Muted colours;
- MOD ranges within plantations at the north-eastern edge.

Description

5.8.3 This Landscape Character Type is situated in the far northwestern part of the Study Area and extends northwards into Cumbria and County Durham. It comprises elevated, gently rounded hills, often with stepped sides facing valleys, forming broad plateaux to the north and south of Swaledale (in the Yorkshire Dales National Park). Plateaux are dissected by steep sided gullies, and plateaux edges are often defined by dark, blocky gritstone outcrops, with scree below. Watercourses tend to be rocky, with grass, heather or rush banks and occasional trees on rock and cliffs in sheltered gills. Deep layers of peat overlay carboniferous rocks, whilst millstone grits outcrop locally in summits and gullies. Landcover is dominated by extensive tracts of acid grassland, blanket bog and upland heath, creating an interesting and recognisable landscape pattern. The landscape is widely grazed by sheep and heather moorland is managed for grouse shooting. Settlement is generally absent from the open moor tops, but scattered traditional farmsteads with modern outbuildings are often located at the fringes of the dales which cut through this Landscape Character Type. The landscape is large-scale and is predominantly rural with an associated strong sense of isolation and tranquillity. Long distance views across

open moorland to distant summits, as well as panoramic views of the northern dales and Cumbrian fells contribute to recognisable sense of place. Occasional disused mine-workings are also features. The moors generally have a rugged, unmanaged and remote character, with human influences largely limited to occasional fences and cairns, with few roads or tracks crossing the plateaux. The extensive moorland and heath habitats support diverse upland bird communities.

Definitive Attributes

Geology	<ul style="list-style-type: none"> • This area is predominantly underlain by rocks of the Millstone Grit Series • Superficial deposits of peat cover much of the landscape
Topography & Drainage	<ul style="list-style-type: none"> • This is a substantial area of continuous upland which extends beyond the study boundary • Extensive plateau summits contrast with steep valleys sides of adjacent character areas • Large areas of impeded drainage have led to the formation of blanket bog • The area is drained by a number of high order streams
Land Cover	<ul style="list-style-type: none"> • Summit areas are covered by blanket bog, giving way to dwarf shrub heath on drier ground • Lower slopes tend to be occupied by unimproved calcareous or neutral grassland • Pockets of acid grassland • Smaller areas of improved grassland exist at the margins of the area
Enclosure / Field Pattern	<ul style="list-style-type: none"> • Extensive, contiguous areas of unenclosed heather moorland • Large blocks of parliamentary enclosures defined by straight, dry stone wall, field boundaries • Blanket bog • Large area of common land consisting of Askrigg, Angram and Abbotside Common
Settlement Pattern	<ul style="list-style-type: none"> • Settlement is absent from the open moor tops, but scattered traditional farmsteads with modern outbuildings are present near the dale fringes. The landscape is characterised by an absence of built structures with few roads or tracks crossing the plateau
Visible Historic Features	<ul style="list-style-type: none"> • Moorland with extensive lead mining in south of area • Large stone quarries high above the reservoirs • Large areas of moorland which are dominated by a history of lead extraction • Lead mines and smelt mills at moulds side west of Langthwaite • Lead mines, ore works and smelt mills at Old Gang on Reeth High Moor • Prehistoric carved rocks and associated remains including cairns and a field system 800m south of haythwaite, Barningham moor • Moss Dam • Marrick ore hearth lead smelt mill • Medieval settlement and field system at Walburn Hall

EVALUATION

Forces for Change

Agricultural Change and Land Management

- High stocking densities in recent decades have resulted in a decline in the extent of heather;
- Moorland drainage has led to the erosion or degradation of peat in places. In addition to the damage to peatland habitats this has affected water quality with increased peat solids both in suspension and in sediments in watercourses;
- Sheltering of stock within upland woodlands, together with grazing by rabbits and roe deer is preventing regeneration in some woodlands. Light grazing can be beneficial in places to maintain the ground flora or a mosaic of open ground, scrub and woodland.

- Semi-natural woodlands occur as isolated features. Many have little active management and are often grazed by livestock which inhibits natural regeneration.

Development and Infrastructure

- Decline and loss of relics of the mining and quarrying industry due to intrusive land management practice;
- Increased risk of moorland fires, footpath and summit erosion and disturbance of birds as a result of pressure for public access;
- Evidence of the erection of post and wire fences on moorland which introduces boundary features into a predominantly open landscape.

Climate Change

- The ecosystem services which upland areas provide including mitigating flood risk, providing water, sequestering carbon, and providing habitat and recreation, need to be retained in the face of economic and climatic changes;
- Without management there is likely to be increasing invasion of upland bogs and heaths by trees and scrub with estimated temperature increases;
- Increasing incidence of intense rainfall events may result in increased soil erosion and associated flash floods. Expansion of Gill Woodland and blocking of grips could help to mitigate against flooding;
- Increased temperatures and drier summers may cause a declining water table and the release of carbon from peat soils to the atmosphere. Research commissioned by the 'moors for the future' programme has shown that management and restoration of moorlands can reverse this effect;
- In the long term it is thought that the climatic conditions will become too unsuitable for the continued formation of Peat in moorland areas;

Sensitivity to Change Issues

- High visual sensitivity as a result of elevated, open nature of this landscape, which facilitates panoramic views across adjacent landscapes. There is associated strong intervisibility with surrounding Landscape Character Types;
- High ecological sensitivity as a result of the distinctive patchwork of blanket bogs and heather moorland which provide key habitats for plants and birds and are designated as part of the North Pennine Moors SPA, SSSI and SAC;
- High landscape and cultural sensitivity, resulting from the predominantly intact landscape pattern of blocky gritstone outcrops, predominantly rural character and strong sense of remoteness and tranquillity throughout, with associated dark night skies.

GUIDANCE

Guidance for Managing Landscape Change

Physical and Ecological Character

- **Protect** and **positively** manage large, open and expansive areas of moorland comprising blanket bogs and heather moorland for biodiversity, sense of place and resilience to climate change;
- **Seek** opportunities to restore, extend and re-link moorland habitats to achieve a strong habitat network;
- **Seek** opportunities to block moorland grips to benefit soil and water management and habitat restoration;

- Where possible, **restore** acidic grasslands to dwarf-shrub heath communities and implement sustainable grazing regimes and burning programmes to promote structural and biological diversity;
- **Manage** livestock densities to avoid poaching of soils and aid water infiltration, limiting surface runoff;
- **Improve** and **maintain** blanket bog in good condition in order to preserve the high soil carbon content and protect underlying archaeological and palaeoenvironmental deposits;
- **Protect** important geological exposures, including gritstone outcrops, using semi-natural landcover to enhance landform features.

Cultural and Historic Character

- **Maintain** the visibility of upstanding archaeological remains and ground features;
- **Encourage** the use of local (gritstone) building materials for the repair and restoration of stone walls and building;
- **Protect** historic landscape features such as remnant mines, quarries and roadside limekilns;
- **Restore**, and provide interpretation of, extractive and industrial sites such as quarries and limekilns;
- **Maintain** sustainable grazing intensities and low levels of scrub to ensure the integrity and visibility of archaeological sites.

Aesthetic and Perceptual Character

- **Maintain** public access to enable enjoyment of this landscape and the sense of ‘escapism’ and ‘inspiration’ it provides whilst protecting vulnerable habitats, through the network of public footpaths and open access land;
- **Protect** key views to adjacent Yoredale Moors and Fells, Vale Farmland with Dispersed Settlements and Farmed Dales;
- **Conserve** the predominantly rural character, overall sense of tranquillity and remoteness; and dark night skies.

Signposts to Further Characterisation Information

National Character Area

- NCA 21: Yorkshire Dales
http://www.naturalengland.org.uk/ourwork/landscape/englands/character/areas/yorkshire_dales.aspx

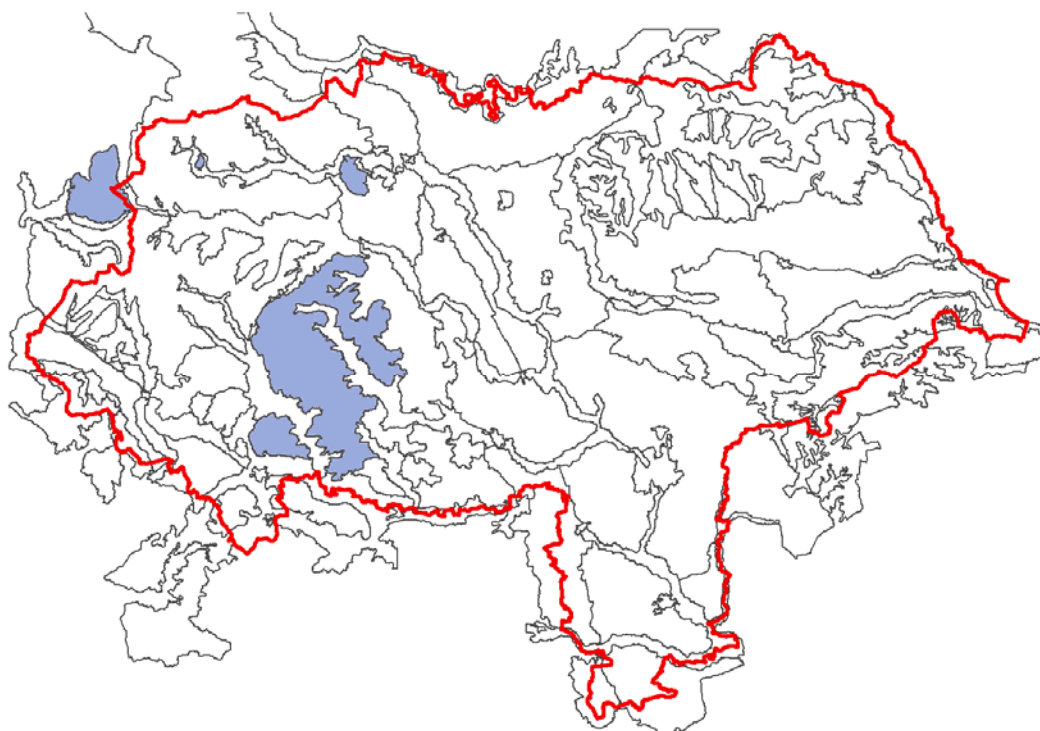
Local Landscape Character Assessments

- Yorkshire Dales National Park Landscape Character Assessment (2001)
http://www.yorkshiredales.org.uk/index/learning/landscape_character.htm

Adjacent Landscape Character Assessments

- County Durham Landscape Character Assessment (2008),
<http://www.durham.gov.uk/Pages/Service.aspx?ServiceId=6397>

Gritstone High Moors and Fells (34)



CHARACTERISATION

Key Characteristics

- A series of pronounced upland hills which support characteristic moorland vegetation including dwarf shrub heather, neutral and acid grassland and blanket bog;
- These habitats support a diverse range of bird species;
- A strongly rural, undeveloped character with associated strong sense of tranquillity;
- Large-scale, expansive landscape which facilitates extensive open, panoramic views across surrounding lowland landscapes;
- The landscape displays a range of muted colours and there are generally few signs of human influence.

Description

- 5.8.4 The largest part of this Landscape Character Type is located in the central-western part of the Study Area between Wenesleydale, Nidderdale and Wharfedale. Small areas are also located on the north-western edge extending north-eastwards into Cumbria from Garsdale Head, and on far south-western edge of the Study Area between Colne and Keighley, extending into Bradford Metropolitan District. The northern part of this type is an extension of the Pennines, rising to around 700m AOD, whilst the southern part rises up to 300-450m AOD. The fells have developed on gritstone bedrock geology, which have eroded to form steep-sided rounded hills, with deeply incised valleys and gills. There are occasional rocky crags, waterfalls and dramatic steep slopes which create visual interest. Heavily grazed open moorland of rough grass and bracken is the predominant land cover with little or no tree cover. The higher slopes and summits afford extensive and panoramic views across adjacent upland and lowland landscapes. Colours tend to be muted, although in autumn, expanses of heather on the moorland provide vivid colour. Localised erosion has exposed crags in some areas and gritstone boulders are scattered across the moors. The moors have strong sense of remoteness,

exposure and tranquillity and also provide a sense of elevation which is strengthened by the expansive dominance of sky in this large-scale landscape.

Definitive Attributes

Geology	<ul style="list-style-type: none"> This upland area is composed of hard wearing rocks of the Millstone Grit series Superficial peat deposits cover the upland plateaux
Topography & Drainage	<ul style="list-style-type: none"> This upland block rises to a height of 704m AOD at Great Wernside The area consists of extensive upland plateaux characterised by gentle rounded slopes, and steeply sloping hillsides where the uplands are intersected by dales Ridges of higher ground are a feature this area Numerous upland becks drain the moorland
Land Cover	<ul style="list-style-type: none"> Blanket bog is found at the highest elevation Dwarf shrub heath forms a large contiguous area Areas of acid grassland are also present Neutral grassland is common on the moorsides
Enclosure / Field Pattern	<ul style="list-style-type: none"> Large areas of continuous, unenclosed moorland cover the fell summits Large areas of intakes exist however the enclosures are extremely large Areas of parliamentary enclosures characterised by straight dry stone walls cover large areas at the margins of the moor
Settlement Pattern	<ul style="list-style-type: none"> Road access is limited to valleys fringing this LCT, farms sit below the moor edge and the fells are generally characterised by an absence of built structures including buildings and roads. This is an unsettled landscape
Visible Historic Features	<ul style="list-style-type: none"> Multi-period lead mines and processing works and 20th Century barytes mill on Grassington moor Stoney grooves and Merryfield Hole lead mines Tor dike linear earthwork Settlement on Burton Moor

EVALUATION

Forces for Change

Agricultural Change and Land Management

- High stocking densities in recent decades have resulted in a decline in the extent of heather;
- Moorland drainage has led to the erosion or degradation of peat in places. In addition to the damage to peatland habitats this has affected water quality with increased peat solids both in suspension and in sediments in watercourses;
- Sheltering of stock within upland woodlands, together with grazing by rabbits and roe deer is preventing regeneration in some woodlands. Light grazing can be beneficial in places to maintain the ground flora or a mosaic of open ground, scrub and woodland.
- Semi-natural woodlands occur as isolated features. Many have little active management and are often grazed by livestock which inhibits natural regeneration;
- The lack of transitional habitats between moorland, improved grassland and dark conifer plantations has resulted in a landscape of stark contrasts;
- The neglect of boundary stone walls (which ensure low grazing densities required to maintain moorland vegetation) is likely to lead to a loss of existing landscape pattern

Development and Infrastructure

- Decline and loss of relics of the mining and quarrying industry due to intrusive land management practice;
- Increased risk of moorland fires, footpath and summit erosion and disturbance of birds as a result of pressure for public access;

- Evidence of the erection of post and wire fences on moorland which introduces boundary features into a predominantly open landscape;
- Minor tracks and paths crossing the moorland are used for off-road activities, with motorbikes and 4-wheel drive vehicles causing erosion and noise;
- Loss of mining features as a result of spoil quarrying for construction of shooting tracks
- Shooting tracks, which do not respect local vernacular materials and are prominent on fell sides.

Climate Change

- The ecosystem services which upland areas provide including mitigating flood risk, providing water, sequestering carbon, and providing habitat and recreation need to be retained in the face of economic and climatic changes;
- Without management there is likely to be increasing invasion of upland bogs and heaths by trees and scrub with estimated temperature increases;
- Increasing incidence of intense rainfall events may result in increased soil erosion and associated flash floods. Expansion of Gill Woodland and blocking of grips could help to mitigate against flooding;
- Increased temperatures and drier summers may cause a declining water table and the release of carbon from peat soils to the atmosphere. Research commissioned by the 'moors for the future' programme has shown that management and restoration of moorlands can reverse this effect;
- In the long term it is thought that the climatic conditions will become too unsuitable for the continued formation of Peat in moorland areas;
- Increased temperatures and drier summers may cause a declining water table and the release of carbon from peat soils to the atmosphere. Research commissioned by the moors for the future programme has shown that management and restoration of moorlands can reverse this effect;
- Potential ecosystem services, including mitigating flood risk and providing water to face economic and climate change is likely to impact upon landscape character;
- Potential for the introduction of new renewable energy technologies;
- Potential for the introduction of peat conservation initiatives.

Sensitivity to Change Issues

- High visual sensitivity as a result of elevated, open nature of this landscape, which facilitates panoramic views across adjacent landscapes. There is associated strong intervisibility with surrounding Landscape Character Types;
- High ecological sensitivity as a result of the distinctive patchwork of blanket bogs and heather moorland which provide key habitats for plants and birds and are designated as part of the North Pennine Moors SPA, SSSI and SAC;
- High landscape and cultural sensitivity, resulting from the predominantly intact landscape pattern of blocky gritstone outcrops, predominantly rural character and strong sense of remoteness and tranquillity throughout, with associated dark night skies.

GUIDANCE

Guidance for Managing Landscape Change

Physical and Ecological Character

- **Protect** and **positively** manage large, open and expansive areas of moorland comprising blanket bogs and heather moorland for biodiversity, sense of place and resilience to climate change;
- **Seek** opportunities to restore, extend and re-link moorland habitats to achieve a strong habitat network;

- **Seek** opportunities to block moorland grips to benefit soil and water management and habitat restoration;
- Where possible, **restore** acidic grasslands to dwarf-shrub heath communities and implement sustainable grazing regimes and burning programmes to promote structural and biological diversity;
- **Manage** livestock densities to avoid poaching of soils and aid water infiltration, limiting surface runoff;
- **Improve** and **maintain** blanket bog in good condition in order to preserve the high soil carbon content and protect underlying archaeological and palaeoenvironmental deposits;
- **Protect** important geological exposures, including gritstone outcrops, using semi-natural landcover to enhance landform features.

Cultural and Historic Character

- **Maintain** the visibility of upstanding archaeological remains and ground features;
- **Encourage** the use of local (gritstone) building materials for the repair and restoration of stone walls and building;
- **Protect** historic landscape features such as remnant mines, quarries and roadside limekilns;
- **Restore**, and provide interpretation of, extractive and industrial sites such as quarries and limekilns;
- **Maintain** sustainable grazing intensities and low levels of scrub to ensure the integrity and visibility of archaeological sites.

Aesthetic and Perceptual Character

- **Maintain** public access to enable enjoyment of this landscape and the sense of ‘escapism’ and ‘inspiration’ it provides whilst protecting vulnerable habitats, through the network of public footpaths and open access land;
- **Protect** key views to adjacent Gritstone Valley, Farmed Dale and Settled, Industrial Valleys;
- **Conserve** the predominantly rural character, overall sense of tranquillity and remoteness; and dark night skies.

Signposts to Further Characterisation Information

National Character Area

- NCA 21: Yorkshire Dales
http://www.naturalengland.org.uk/ourwork/landscape/englands/character/areas/yorkshire_dales.aspx
- NCA 36: Southern Pennines
http://www.naturalengland.org.uk/ourwork/landscape/englands/character/areas/southern_pennines.aspx

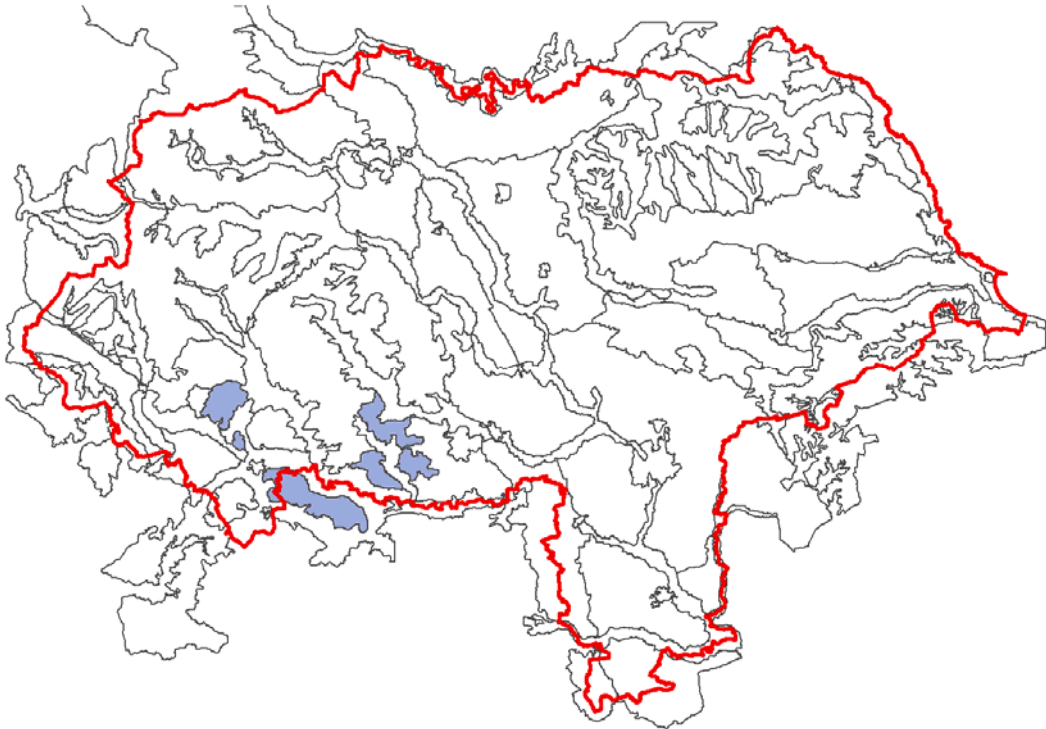
Local Landscape Character Assessments

- Harrogate District Landscape Character Assessment (2004)
<http://www.harrogate.gov.uk/harrogate-93>
- Nidderdale AONB Landscape Character Assessment (1991)
- Yorkshire Dales National Park Landscape Character Assessment (2001)
http://www.yorkshiredales.org.uk/index/learning/landscape_character.htm

Adjacent Landscape Character Assessments

- Parts of this LCT lie within the North West Landscape Character Assessment (2009) and the
- Cumbria Landscape Character Assessment (1995)
http://www.naturalengland.org.uk/Images/NWLCF-report2_tcm6-13277.pdf
<http://www.cumbria.gov.uk/elibrary/Content/Internet/538/755/1599/2318/2323/38520131637.pdf>

Gritstone Low Moors and Fells (35)



CHARACTERISATION

Key Characteristics

- A series of rounded low hills which are generally located between 200m and 400m AOD;
- Characteristic moorland vegetation comprising dwarf shrub heather on the higher hills, with a mosaic of improved, neutral and calcareous grassland on the lower slopes;
- Mosaic of unenclosed moorland and intakes from the moor with some areas of parliamentary enclosures;
- Sparse settlement pattern and a predominantly rural character, with associated sense of tranquillity and dark night skies;
- Occasional minor roads cross the landscape;
- Open skylines and extensive panoramic views across surrounding lower landscapes from higher locations.

Description

5.8.5 This Landscape Character Type is predominantly located in the south-west of the Study Area to the north of Skipton and Otley. To the east of Wharfedale, this Landscape Character Type forms part of the Nidderdale AONB. The Gritstone Low Moors and Fells form part of the lower Pennines and comprise an extensive upland landscape, which is flat to gently undulating. They are generally located above 200m AOD, rising up to 390m AOD at Dallowgill Moor and 506m at Burnsall and Thorpe Fell. There is striking contrasts within the landscape between the sense of remoteness and exposure within the higher locations and the sheltered dales and valleys. Vegetation is dominated by heather and cotton grass, resulting in notable colour changes with the seasons. Marginal agriculture takes place on some of the lower moorland edges. Tree cover is sparse and generally limited to narrow gills. There are occasional blocks of conifer plantations along the moorland edge which impart a human influence over the landscape. The heather moors are managed for grouse shooting, whilst large, rectilinear fields of rough grass along the moorland edge fringe are grazed by sheep. This Landscape Character

Type is predominantly unsettled, although scattered houses and farmsteads occupy lower areas on either side of the Nidd Valley. The scarcity of public roads in the upper areas contributes to a sense of remoteness. The landscape is rich in archaeological and historic features, including a holy well at Pateley Bridge. Prehistoric cup and ring marked rocks are also key features which are scattered throughout the landscape, as well as the Royal Forest of Knaresborough and Haverah Park, both of which are medieval deer parks

Definitive Attributes

Geology	<ul style="list-style-type: none"> • Sedimentary rocks from the Millstone Grit Series underlie this LCT • Small areas of peat occur on higher ground • Deposits of Glacial till occur on the lower slopes
Topography & Drainage	<ul style="list-style-type: none"> • The fells in this LCT rise to over 400m AOD at the summit • This area forms the eastern extension of a larger block of upland • The moors slope gently downwards to the eastern lowlands • This LCT is interrupted by the Wharfedale and Nidderdale
Land Cover	<ul style="list-style-type: none"> • Contiguous areas of dwarf shrub heath and open heath cover higher ground • Lower moorland slopes are covered by a mixture of improved, neutral and calcareous grassland • Three large coniferous plantations are present in the area
Enclosure / Field Pattern	<ul style="list-style-type: none"> • Large blocks of Common land and unenclosed moorland • Large block of intake with extremely large enclosures • Lower moorland slopes are generally characterised by parliamentary enclosures of medium sized regular fields
Settlement Pattern	<ul style="list-style-type: none"> • Higher and more remote areas are predominantly unsettled with scattered houses and farmsteads occupying lower areas on either side of the Nidd Valley. The scarcity of public roads in these areas contributes to a sense of remoteness • Some of the lower moors within this area have been enclosed for agriculture and as a result have a network of straight roads linking large, widely separated farmsteads which are often quite prominent within the landscape. The area tends not to contain any larger settlements
Visible Historic Features	<ul style="list-style-type: none"> • Many tracks crossing the ridge, connecting settlement (though not as public roads now) • Peat cutting • Roman road on Blubberhouses Moor • Large group of prehistoric carved rocks and enclosures on Snowden Moor and Common on whole block from Weston, northwards to the A59 • Lead mining and stone quarrying south of Greenhow • Large stone quarries high above the reservoirs • Cairnfield and carved rocks on Snowden Carr • Cairnfield, enclosures, boulder walling, hollow way and carved rocks towards edge of Snowden Carr • Lime kiln and associated quarries 330m west of Toft Gate Farm

EVALUATION

Forces for Change

Agricultural Change and Land Management

- High stocking densities in recent decades have resulted in a decline in the extent of heather;
- Moorland drainage has led to the erosion or degradation of peat in places. In addition to the damage to peatland habitats this has affected water quality with increased peat solids both in suspension and in sediments in watercourses;

- Sheltering of stock within upland woodlands, together with grazing by rabbits and roe deer is preventing regeneration in some woodlands. Light grazing can be beneficial in places to maintain the ground flora or a mosaic of open ground, scrub and woodland.
- Semi-natural woodlands occur as isolated features. Many have little active management and are often grazed by livestock which inhibits natural regeneration.

Development and Infrastructure

- Decline and loss of relics of the mining and quarrying industry due to intrusive land management practice;
- Landscapes close to Harrogate, around Stainburn, Sandwith and Lindley Moor are exposed and highly visible. Within these areas, the introduction of tall vertical elements associated with renewable energy (such as wind turbines) and telecommunications masts could be visually intrusive;
- Increased pressure for tourist related developments, such as holiday cottages, potentially affecting the overall sense of remoteness and tranquillity;
- Pressure for new residential development in close proximity to Harrogate;
- Increased risk of moorland fires, footpath and summit erosion and disturbance of birds as a result of pressure for public access;
- Evidence of the erection of post and wire fences on moorland which introduces boundary features into a predominantly open landscape;
- Minor tracks and paths crossing the moorland are used for off-road activities, with motorbikes and 4-wheel drive vehicles causing erosion and noise
- Shooting tracks, which do not respect local vernacular materials and are prominent on fell sides.

Climate Change

- The ecosystem services which upland areas provide including mitigating flood risk, providing water, sequestering carbon, and providing habitat and recreation need to be retained in the face of economic and climatic changes;
- Without management there is likely to be increasing invasion of upland bogs and heaths by trees and scrub with estimated temperature increases;
- Increasing incidence of intense rainfall events may result in increased soil erosion and associated flash floods. Expansion of gill Woodland and blocking of grips could help to mitigate against flooding;
- Increased temperatures and drier summers may cause a declining water table and the release of carbon from peat soils to the atmosphere. Research commissioned by the 'moors for the future' programme has shown that management and restoration of moorlands can reverse this effect;
- In the long term it is thought that the climatic conditions will become too unsuitable for the continued formation of Peat in moorland areas;
- Increasing incidence of intense rainfall events may cause increased soil erosion and lead to flash floods.

Sensitivity to Change Issues

- High visual sensitivity as a result of elevated, open nature of this landscape, which facilitates panoramic views across adjacent landscapes. There is associated strong intervisibility with surrounding Landscape Character Types;
- High ecological sensitivity as a result of the distinctive patchwork of blanket bogs and heather moorland which provide key habitats for plants and birds and are designated as part of the North Pennine Moors SPA, SSSI and SAC;
- High landscape and cultural sensitivity, resulting from the predominantly intact landscape pattern of blocky gritstone outcrops, predominantly rural character and strong sense of remoteness and tranquillity throughout, with associated dark night skies.

GUIDANCE

Guidance for Managing Landscape Change

- **Protect** and **positively** manage large, open and expansive areas of moorland comprising blanket bogs and heather moorland for biodiversity, sense of place and resilience to climate change;
- **Seek** opportunities to restore, extend and re-link moorland habitats to achieve a strong habitat network;
- **Seek** opportunities to block moorland grips to benefit soil and water management and habitat restoration;
- Where possible, **restore** acidic grasslands to dwarf-shrub heath communities and implement sustainable grazing regimes and burning programmes to promote structural and biological diversity;
- **Manage** livestock densities to avoid poaching of soils and aid water infiltration, limiting surface runoff;
- **Improve** and **maintain** blanket bog in good condition in order to preserve the high soil carbon content and protect underlying archaeological and palaeoenvironmental deposits;
- **Protect** important geological exposures, including gritstone outcrops, using semi-natural landcover to enhance landform features.

Cultural and Historic Character

- **Maintain** the visibility of upstanding archaeological remains and ground features;
- **Encourage** the use of local (gritstone) building materials for the repair and restoration of stone walls and building;
- **Protect** historic landscape features such as remnant mines, quarries and roadside limekilns;
- **Restore**, and provide interpretation of, extractive and industrial sites such as quarries and limekilns;
- **Maintain** sustainable grazing intensities and low levels of scrub to ensure the integrity and visibility of archaeological sites.

Aesthetic and Perceptual Character

- **Maintain** public access to enable enjoyment of this landscape and the sense of 'escapism' and 'inspiration' it provides whilst protecting vulnerable habitats, through the network of public footpaths and open access land;
- **Protect** key views to adjacent Gritstone Valleys and Gritstone High Moors and Fells; **Conserve** the predominantly rural character, overall sense of tranquillity and remoteness; and dark night skies.

Signposts to Further Characterisation Information

National Character Area

- NCA 21: Yorkshire Dales
http://www.naturalengland.org.uk/ourwork/landscape/englands/character/areas/yorkshire_dales.aspx
- NCA 36: Southern Pennines
http://www.naturalengland.org.uk/ourwork/landscape/englands/character/areas/southern_pennines.aspx

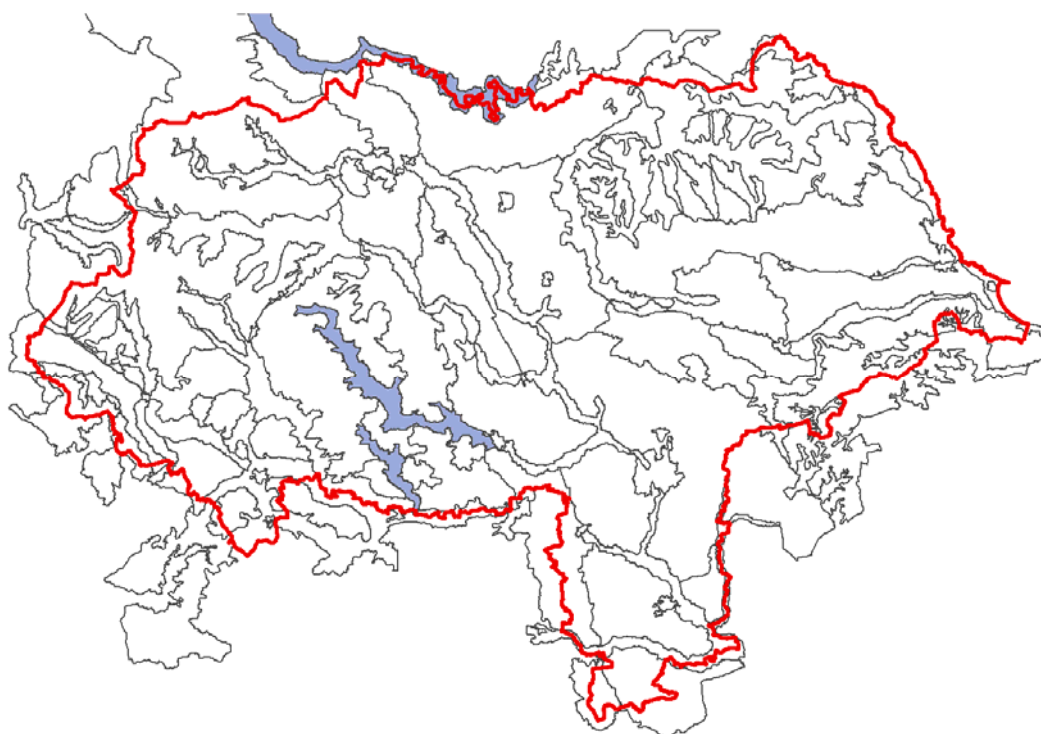
Local Landscape Character Assessments

- The Harrogate District Landscape Character Assessment (2004)
<http://www.harrogate.gov.uk/harrogate-93>
- Nidderdale AONB Landscape Character Assessment (1991)

Adjacent Landscape Character Assessments

- Bradford Landscape Character Assessment (2008)
http://www.bradford.gov.uk/bmdc/the_environment/planning_service/local_development_framework/landscape_character_assessment_SPD.htm

Gritstone Valley (36)



CHARACTERISATION

Key Characteristics

- A series of relatively narrow valleys which cut through adjacent Gritstone Moors and Fells;
- A patchwork of species rich grasslands with a diverse range of ecological habitats along the valley floors;
- Rich legacy of agriculture, quarrying, mining, textiles and water supply activities;
- Network of minor roads connecting villages, hamlets;
- Predominantly rural landscape with associated sense of tranquillity;
- Tree cover is generally sparse within the Upper Nidderdale Valley Reservoirs;
- Reservoirs and conifer plantations are key landscape features which impart a human influence;
- Predominantly rural landscape with an associated strong sense of tranquillity.

Description

- 5.8.6 The Gritstone Valley Landscape Character Type encompasses the valleys of the River Nidd, which extends north-westwards into the Yorkshire Dales from the northern edge of Harrogate, and the River Washburn, which extends north-westwards into the Dales from the eastern side of Otley. Much of this Landscape Character Type is situated within the Nidderdale AONB. The valley of the Nidd is broad and U-shaped, whilst the valley of the Washburn is relatively narrow and V-shaped valleys. Landform rises between 50m to 100m AOD in the valley bottoms to 80m to 400m AOD on the valley sides. Solid geology is Millstone grit overlain with till drift geology. Reservoirs dominate long sections of the valleys, with dams across the narrow, steep-sided sections. Numerous small becks descend from the valley sides to feed the reservoirs and main rivers. Springs and wells are dotted throughout the valleys. Land-cover is dominated by improved and semi-improved grassland, which is intensively managed for livestock. There are small areas of arable production on the floor of the Nidd Valley and moorland vegetation on valley sides around Thruscross Reservoir. Fields are generally small to

medium in size and enclosed by stone walls or hedges reinforced in many places by fencing (often for stock control). This Landscape Character Type provides a valuable recreation resource and provides a 'gateway' to the Nidderdale AONB. Open views across the reservoirs or along the river valley floors (channelled and enclosed by woodland and steep valley sides) contribute to recognisable sense of place. An intricate network of minor roads links villages, numerous scattered farmsteads and individual houses. The valleys have a rich industrial history including agriculture, quarrying, mining, textiles and water supply. Historic mills are also key features along the valley corridors. During the 12th century, several granges were present within the Gritstone Valleys, linked to Fountains Abbey. Parts of this Landscape Character Type also formed part of the Royal Forest of Knaresborough medieval hunting ground.

Definitive Attributes

Geology	<ul style="list-style-type: none"> • These valleys are carved out of the Mill Stone Grit Series which comprises layers of different sedimentary rocks • Riverine deposits of alluvium are present within the narrow valley floor • Glacial deposits of Diamicton cover the valley floor in its lower reaches
Topography & Drainage	<ul style="list-style-type: none"> • The LCT comprises deep, narrow and sinuous valleys fringed by high moorland • The river floodplain is very narrow throughout much of its length • Deep valleys and impervious rock have made this an ideal location for reservoir construction, and water bodies such as Gouthwaite Reservoir in Nidderdale are a feature of the area
Land Cover	<ul style="list-style-type: none"> • The commonest land cover is improved grassland. Neutral and calcareous grassland are also present • There are significant areas of deciduous woodland within the dales while coniferous woodland plantations also feature • Acidic grassland is present on some of the higher slopes fringing the moorland
Enclosure / Field Pattern	<ul style="list-style-type: none"> • Piecemeal enclosures feature, particularly in Upper Nidderdale • Small areas of assart are present in Nidderdale • Planned enclosures with regular, dry stone wall field boundaries from an unknown date also feature • Remaining areas were enclosed by a series of parliamentary enclosures • Reservoir construction and woodland planting has erased the enclosure pattern in places
Settlement Pattern	<ul style="list-style-type: none"> • Farmsteads are found at all levels within the valleys, whilst settlements and scattered large farmsteads are typically found along the edge of the valley floors above the floodplain. A relatively large number of farmsteads occupy the upper Washburn, where a textile industry once thrived • There is an intricate network of minor roads linking the villages and the many scattered farmsteads and individual houses
Visible Historic Features	<ul style="list-style-type: none"> • Valley-side farmsteads in upper Nidderdale, which originated as monastic farms and field systems • Textile mills alongside rivers • Line of the Nidd Valley Light Railway • Winsleyhurst park and country house is a notable parkland landscape • Settlement Site Middlesmoor • Lead mines and smelt mill • Ripley Castle historic park and garden

EVALUATION

Key Forces for Change

Agricultural Change and Land Management

- Introduction of new visually intrusive large agricultural sheds;
- Inappropriate conversion of existing redundant or derelict farm buildings in a style which is inconsistent with the local vernacular;
- Disrepair/loss of drystone walls and field barns;
- Introduction of fencing which affects the overall sense of openness;
- Agricultural improvements threaten species rich pastures;
- Nature conservation sites in the valley floor are vulnerable to nutrient enrichment;
- The neglect of boundary stone walls (which ensure low grazing densities required to maintain moorland vegetation) is likely to lead to a loss of existing landscape pattern;
- Planting of rectilinear conifer plantations in the past has resulted in a change to landscape pattern.

Development and Infrastructure

- Introduction of further, potentially visually intrusive camping and caravan sites;
- Potential widening of or improvements to main road corridors;
- Introduction of new overhead electricity lines or telecommunications masts which have the potential to be visually intrusive, particularly if situated on higher valley slopes;
- Increased pressure for tourist related developments, such as holiday cottages, potentially affecting the overall sense of remoteness and tranquillity;
- In the past, reservoir management has impacted on the character of the upland valleys, resulting in a change to landscape pattern and an introduction of 'human' elements into an otherwise predominantly rural landscape

Climate Change

- Farmers may benefit from a longer growing season while woodland trees are expected to grow well. Consumer preference for locally produced food may benefit farmers;
- More targeted use of resources may lead to extensive, low input management to meet a range of objectives. Future management will be particularly concerned with ecosystem services provided by the landscape, including habitat provision;
- Measures to mitigate against increased flood risk might include woodland or wetland creation adjacent to water courses;
- Stock access to the river bank should be prevented to improve water quality.

Sensitivity to Change Issues

- High visual sensitivity as a result of strong intervisibility with adjacent Moors and Fells Landscape Character Types;
- Moderate ecological sensitivity as a result of the patchwork of deciduous woodland which provide key habitats;
- High landscape and cultural sensitivity as a result of the pattern of narrow valleys, each with their own strongly recognisable landscape pattern and sense of place, coupled with strong historic integrity, numerous historic features and overall sense tranquillity within this predominantly rural landscape.

Guidance for Managing Landscape Change

Physical and Ecological Character

- **Protect** important geological exposures where they exist (for example limestone pavements) and use semi-natural land cover to enhance landform features;
- **Avoid** disruption to the topography of these features and protect from damage or removal;
- **Protect** and **enhance** the pastoral character of the dales and distinctive field patterns and boundaries;
- **Maintain** the mosaic of pastoral land uses within the dales, aiming for extensive grazing;
- **Control** the use of fertilisers to retain biological diversity and protect water quality;
- **Protect** unimproved and species-rich meadows and pastures, mosaics of rushy and managed pastures on hill sides, many of which are of national importance for their landscape and biodiversity value and improve their resilience to climate change;
- **Maintain, restore** and **extend** calcareous grassland communities on limestone;
- **Maintain** and **restore** strong patterns of drystone walls, managing and re-planting if necessary, hedgerows in dales where they are characteristic (for example, Dentedale);
- **Improve** the management of existing broadleaved woodlands and extend and link semi-natural woodlands, particularly on steeper slopes and in valleys;
- **Ensure** that short rotation coppice or miscanthus is grown for energy on a small scale and does not displace important grasslands or obscure historic field patterns or ground features;
- **Create** less intensively managed floodplains and restore and re-link fens, mires and carr woodlands;
- **Plan** for an increase in woodland, mostly within gills and valleys, for the benefit of biodiversity as well as enhancing sense of place;
- **Encourage** new riparian and floodplain woodland in river valleys to increase the natural storage of water and carbon, stabilise banks and reduce flooding downstream;
- **Restore, extend** and **link** existing fragmented areas of broadleaved woodland, ensuring that they are brought under sound management.

Cultural and Historic Character

- **Maintain** the visibility of upstanding archaeological remains and ground features;
- **Encourage** the use of local building materials for the repair and restoration of stone walls and buildings (including Millstone Grit and Great Scar Limestone);
- **Conserve** historic farms and small field barns that are distinctive feature, especially within Swaledale, Wensleydale and Upper Wharfedale;
- **Protect** the rural, dispersed settlement pattern and the local built vernacular by maintaining the nucleated character of villages in most of the dales, often on bridging points and on key transport routes;
- **Conserve** the generally dispersed settlement pattern of farmsteads on valley sides;
- **Protect** historic landscape features such as remnant quarries, leadmines, ore works, lime works, prehistoric monuments, Priors, historic houses and parklands;
- **Protect** the settings of Coverham Abbey, Easby Abbey and Bolton and Ellerton Priors;
- **Maintain** sustainable grazing intensities and low levels of scrub to ensure the integrity and visibility of archaeological sites.

Aesthetic and Perceptual Character

- **Maintain** public access to enable enjoyment of this landscape and the sense of 'escapism' and 'inspiration' it provides whilst protecting vulnerable habitats, through the network of public footpaths and open access land;
- **Promote** new links to the Coast to Coast path, Dales Way, Ribble Way, Nidderdale Way, Pennine Way and Pennine Bridleway;
- **Protect** key views to adjacent Landscape Character Types, including Yoredale Moors and Fells, Gritstone High Moors and Fells and Gritstone High Plateau;
- **Conserve** the overall sense of tranquillity and remoteness; and dark night skies.

Signposts to Further Characterisation Information

National Character Area

- NCA 21: Yorkshire Dales
http://www.naturalengland.org.uk/ourwork/landscape/englands/character/areas/yorkshire_dales.aspx
- NCA 22: Pennine Dales Fringe
http://www.naturalengland.org.uk/ourwork/landscape/englands/character/areas/pennine_dales_fringe.aspx

Local Landscape Character Assessments

- Harrogate District Landscape Character Assessment (2004)
<http://www.harrogate.gov.uk/harrogate-93>
- Nidderdale AONB Landscape Character Assessment (1991)

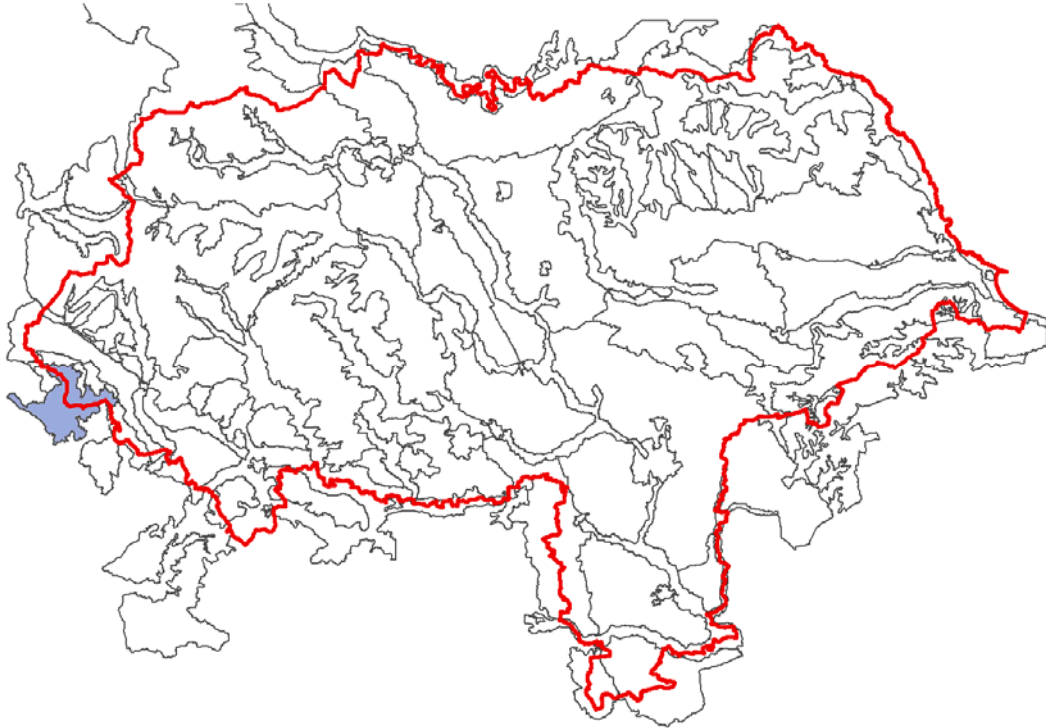
5.9 Siltstone and Sandstone Landscapes

5.9.1 The Siltstone and Sandstone Landscapes are situated at the southwestern edge of the Study Area and extend outside the boundary into neighbouring Authority areas.

5.9.2 The following Landscape Character Types form the Siltstone and Sandstone Landscapes Primary Landscape Unit:

- Siltstone and Sandstone High Moors and Fells (37);
- Siltstone and Sandstone Low Moors and Fells (38);
- Siltstone and Sandstone Valley (39)

Siltstone and Sandstone High Moors and Fells (37)



CHARACTERISATION

Key Characteristics

- Extensive areas of blanket bog;
- Characteristic moorland vegetation comprising dwarf shrub heath, interspersed with pockets of neutral and acid grassland;
- Rounded gently sloping hills which overlie sandstone and siltstone bedrock;
- Expansive, predominantly undeveloped rural character with associated relatively strong sense of tranquillity;
- Open skylines and extensive open, panoramic views across adjacent lower landscapes;
- Landscape displays a patchwork of muted colours.

Description

- 5.9.3 A small part of this Landscape Character Type occurs within the Study Area, whilst the larger part occurs to the south of the Study Area within the Forest of Bowland AONB, Lancashire. The High Moors and Fells encompass a large-scale, sweeping landform that is incised by narrow valleys and cloughs and drained by narrow rivers and gills. It lies predominantly above the 300m contour, extending up to 402mAOD. The landscape supports large expanses of open rolling heather moorland, blanket bog, and small mires. This dynamic mosaic of vegetation contrasts with areas of reclaimed moorland pasture on the upper slopes of the adjacent valleys. Colours are generally muted, although the moorland vegetation creates striking seasonal effects. The moors have an open, exposed, and isolated character and provide long, panoramic views across the surrounding wide valleys. Buildings and stone walls are rare.

Definitive Attributes

Geology	<ul style="list-style-type: none"> This area is dominated by superficial peat deposits which overlie bands of hard wearing sandstones and siltstones of the Mill Stone Grit Series
Topography & Drainage	<ul style="list-style-type: none"> The extensive moorland plateau of the Bowland Fells extends into North Yorkshire at the far south western corner of the county. This upland block rises above surrounding valleys and is characterised by gently rounded slopes and large plateaus with numerous narrow, steep gills The county boundary follows the watershed reaching a high point of 486m AOD on the fell summit Areas of blanket bog hold significant stores of water, the area is drained by an extensive network of small, high order streams
Land Cover	<ul style="list-style-type: none"> The land cover comprises a mix of blanket bog and dwarf shrub heath habitats with areas of neutral and acid grassland resulting from grazing pressure on the land
Enclosure / Field Pattern	<ul style="list-style-type: none"> This area consists entirely of unenclosed moorland
Settlement Pattern	<ul style="list-style-type: none"> The moors have an open, exposed, wild and isolated character. Buildings and stone walls are rare
Visible Historic Features	<ul style="list-style-type: none"> Leats and field systems towards the lower edges of this Landscape Character Type Queen of Fairies chair round barrow on Loftshaw Moss

EVALUATION

Forces for Change

Agricultural Change and Land Management

- The increase in the spread of invasive species such as bracken and gorse in areas where stocking numbers are reduced may lead to reduced biodiversity and changed key characteristics.
- The sustainable management of heath will help to contain excessive erosion and retain a key habitat.
- There may also be pressure for an increase in the number of shooting tracks and related structures, which could be visually intrusive if not designed sensitively.
- With a potential decline in upland hill farming, there is potential that existing stone structures such as sheepfolds and occasional walls will fall into disrepair.
- There is also potential for increased frequency of grip blocking through Environmental Stewardship schemes.

Development and Infrastructure

- Large-scale renewable energy development would break up the uncluttered skylines and key views and erode the open and undeveloped character of the area.
- There is potential pressure from tourist-related development which may result in a related increase in traffic on narrow roads and tracks.

Climate Change

- Fluctuating temperatures, precipitation and general weather patterns will continue to affect this dynamic landscape, leading to potential increases in the incidences of moorland fire and excessive erosion, the possible spread of invasive species and changes in the species composition of habitats.
- It is also possible that climate change will lead to increased flash flooding and gully erosion in upland cloughs and sykes.

Sensitivity to Change Issues

- High visual sensitivity as a result of the open skylines and extensive panoramic views across surrounding lower landscapes from higher locations and strong intervisibility with adjacent Landscape Character Types;
- High ecological sensitivity as a result of the patchwork of key ecological habitats, including blanket bog, dwarf shrub habitats and semi-natural gill woodlands. Many of these habitats are designated as SSSI, SPA and SAC;
- High landscape and cultural sensitivity, resulting from the predominantly intact landscape pattern of moorland summits, small plantations and scattered, isolated stone barns and farmsteads.

GUIDANCE

Guidance for Managing Landscape Change

Physical and Ecological Character

- **Protect, positively manage** and **enhance** large areas of open, expansive moorland;
- **Seek** opportunities to restore, extend and re-link moorland habitats (blanket bog and dwarf shrub habitats) to achieve a strong habitat network and increase resilience to climate change;
- **Restore** areas of blanket bog to sphagnum dominated bog to promote accumulation;
- **Avoid** drainage of the existing moorland and bring blanket bog back into good condition to retain the carbon resource and contribute to flood alleviation;
- **Restore** acidic grasslands to dwarf-shrub communities and implementing sustainable grazing regimes and burning programmes to promote structural and biological diversity;
- **Use** semi-natural landcover to enhance landform features (open moorland hills and wooded cloughs).

Cultural and Historic Character

- **Promote** the use of local materials for stone walls and buildings so that they relate to underlying geology;
- **Protect** the rich collection of historic landscape features, including prehistoric monuments, mines and quarries;
- **Conserve** drainage ditches and dykes which enable the landscape to be used for agriculture;
- **Conserve** the scattered settlement pattern and **enhance** the local vernacular through restoration of traditional farmsteads, farm buildings and associated features.

Aesthetic and Perceptual Character

- **Protect** the predominantly open character of this landscape by maintaining intervisibility with adjacent Landscape Character Types;
- **Protect** and **enhance** public enjoyment of the landscape, including appreciation of the sense of escapism it provides, through identifying opportunities to create new circular routes or links to existing public rights of way.

Signposts to Further Characterisation Information

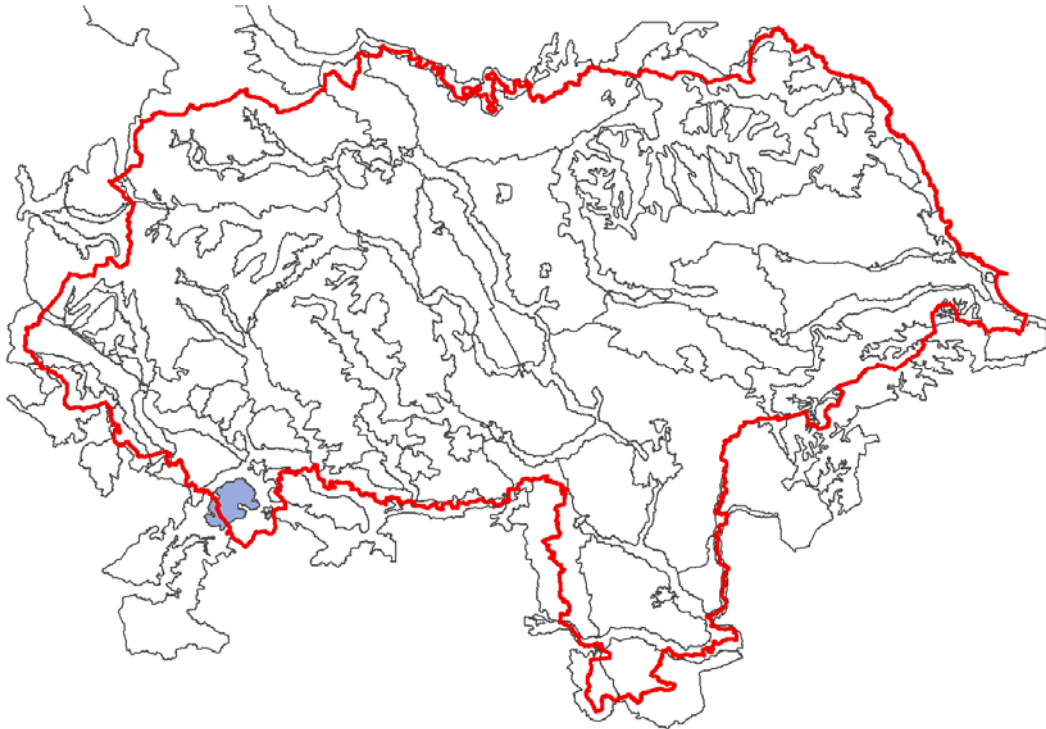
National Character Area

- NCA34: Bowland Fells
http://www.naturalengland.org.uk/ourwork/landscape/englands/character/areas/bowland_fells.aspx

Adjacent Landscape Character Assessments

- Forest of Bowland AONB Landscape Character Assessment (2009),
http://www.forestofbowland.com/landscape_character

Siltstone and Sandstone Low Moors and Fells (38)



CHARACTERISATION

Key Characteristics

- A series of rounded low hills which are generally located between 200m and 400m AOD;
- Characteristic moorland vegetation comprising dwarf shrub heather on the higher hills, with a mosaic of improved, neutral and calcareous grassland on the lower slopes;
- Mosaic of unenclosed moorland and intakes from the moor with some areas of parliamentary enclosures;
- Sparse settlement pattern and a predominantly rural character;
- Occasional minor roads cross the landscape;
- Open skylines and extensive panoramic views across surrounding lower landscapes from higher locations.

Description

- 5.9.4 The Siltstone and Sandstone Low Moors and Fells Landscape Character Type is located in the far south-western part of the Study Area, to the southwest of Skipton and east of Earby, and continues south-westwards into Lancashire. Siltstone and sandstone have combined to produce a gently rolling landform with some prominent knolls. Landscape is predominantly pastoral in most parts, with moorland on the upper levels, particularly at Elslack Moor and Glusburn Moor. Fields are typically enclosed by stone walls that are characteristically lighter in colour than those of the gritstone areas. Vegetation cover comprises moorland grasses on the higher summits, stunted hawthorns on the steeper hillsides, several small plantations and groups of broad-leaved trees in the valleys (within adjacent Landscape Character Types). These trees are conspicuous in the landscape, and produce strong patterns on the hillsides, typically filling the cloughs and steep crevices associated with the becks, which drain them. The winding, narrow roads are often bounded by stone walls, giving a sense of enclosure and obscuring views. Scattered isolated stone barns and farmsteads are the dominant building types, many located on south-facing slopes or next to streams.

Definitive Attributes

Geology	<ul style="list-style-type: none"> The bedrock geology consists of sandstones and siltstones. The moorland hills are formed by the siltstone and sandstone. The hard wearing sandstone and siltstones form the moorland plateaux Areas of glacial till overlie the bedrock in parts of this area
Topography & Drainage	<ul style="list-style-type: none"> This area forms a block of higher ground rising from the surrounding river valleys. The hills have a rounded form with small plateau summits reaching 388m AOD at the highest point The hills are drained by a series of small streams sometimes associated with small areas of gill woodland
Land Cover	<ul style="list-style-type: none"> The majority of the area is covered by improved and neutral grassland The moorland summits have areas of remnant upland heath There are small areas of gill woodland and a small coniferous plantation on one hillside
Enclosure / Field Pattern	<ul style="list-style-type: none"> The moorland summits tend to be unenclosed while lower slopes are characterised by piecemeal enclosures possibly assarted from woodland
Settlement Pattern	<ul style="list-style-type: none"> The area is only accessible by winding narrow lanes. Scattered isolated stone barns and farmsteads are the dominant building types, many located on south-facing slopes or next to streams Lothersdale, a small linear stone village enclosed by steep hillsides, is the key settlement, with the majority of the population concentrated in scattered farmsteads
Visible Historic Features	<ul style="list-style-type: none"> Bleara Lowe round cairn located on the summit of Bleara Moor dating from the bronze age (2000-700BC) Lead mining and smelting predominate at Cononley; Stone quarrying at Cowling and Lothersdale A landscape of scattered farmsteads

EVALUATION

Forces for Change

Agricultural Change and Land Management

- Stream corridors are vulnerable to pollution and run-off associated with the adjacent predominantly pastoral fields
- Stone walls on higher ground are vulnerable to moves to more extensive farming of livestock. These key landscape features could be lost through neglect or removed to enable the amalgamation of adjacent fields.

Development and Infrastructure

- Increasing traffic associated with tourism and recreation could put pressure on the road system. This could lead to inappropriate highway improvements and signage, or large scale schemes that permanently alter the character of the landscape;
- Large-scale renewable energy developments on the skyline and in key views could erode the open and generally undeveloped character;
- Loss of vernacular building styles and use of inappropriate building materials may also result in a loss of local landscape characteristics.

Climate Change

- In the long term it is thought that the climatic conditions will become unsuitable for the continued formation of Peat in moorland areas. The ecosystem services which upland areas provide including mitigating flood risk, providing water, sequestering carbon, and providing habitat and recreation need to be retained in the face of economic and climatic changes

- Pressure for land and food, together with a warmer climate and longer growing season may lead to parts of upland areas being used to produce food or energy.

Sensitivity to Change Issues

- High visual sensitivity as a result of the open skylines and extensive panoramic views across surrounding lower landscapes from higher locations and strong intervisibility with adjacent Landscape Character Types;
- High ecological sensitivity as a result of the patchwork of key ecological habitats, including blanket bog, dwarf shrub habitats and semi-natural gill woodlands. Many of these habitats are designated as SSSI, SPA and SAC;
- High landscape and cultural sensitivity, resulting from the predominantly intact landscape pattern of moorland summits, small plantations and scattered, isolated stone barns and farmsteads.

GUIDANCE

Guidance for Managing Landscape Change

Physical and Ecological Character

- **Protect, positively manage** and **enhance** large areas of open, expansive moorland;
- **Seek** opportunities to restore, extend and re-link moorland habitats (blanket bog and dwarf shrub habitats) to achieve a strong habitat network and increase resilience to climate change;
- **Restore** areas of blanket bog to sphagnum dominated bog to promote accumulation;
- **Avoid** drainage of the existing moorland and bring blanket bog back into good condition to retain the carbon resource and contribute to flood alleviation;
- **Restore** acidic grasslands to dwarf-shrub communities and implementing sustainable grazing regimes and burning programmes to promote structural and biological diversity;
- **Use** semi-natural landcover to enhance landform features (open moorland hills and wooded cloughs).

Cultural and Historic Character

- **Promote** the use of local materials for stone walls and buildings so that they relate to underlying geology;
- **Protect** the rich collection of historic landscape features, including prehistoric monuments, mines and quarries;
- **Conserve** drainage ditches and dykes which enable the landscape to be used for agriculture;
- **Conserve** the scattered settlement pattern and **enhance** the local vernacular through restoration of traditional farmsteads, farm buildings and associated features.

Aesthetic and Perceptual Character

- **Protect** the predominantly open character of this landscape by maintaining intervisibility with adjacent Landscape Character Types;
- **Protect** and **enhance** public enjoyment of the landscape, including appreciation of the sense of escapism it provides, through identifying opportunities to create new circular routes or links to existing public rights of way.

Signposts to Further Characterisation Information

National Character Area

- NCA 35: Lancashire Valleys
http://www.naturalengland.org.uk/ourwork/landscape/englands/character/areas/lancashire_valleys.aspx
- NCA 36: Southern Pennines
http://www.naturalengland.org.uk/ourwork/landscape/englands/character/areas/southern_pennines.aspx

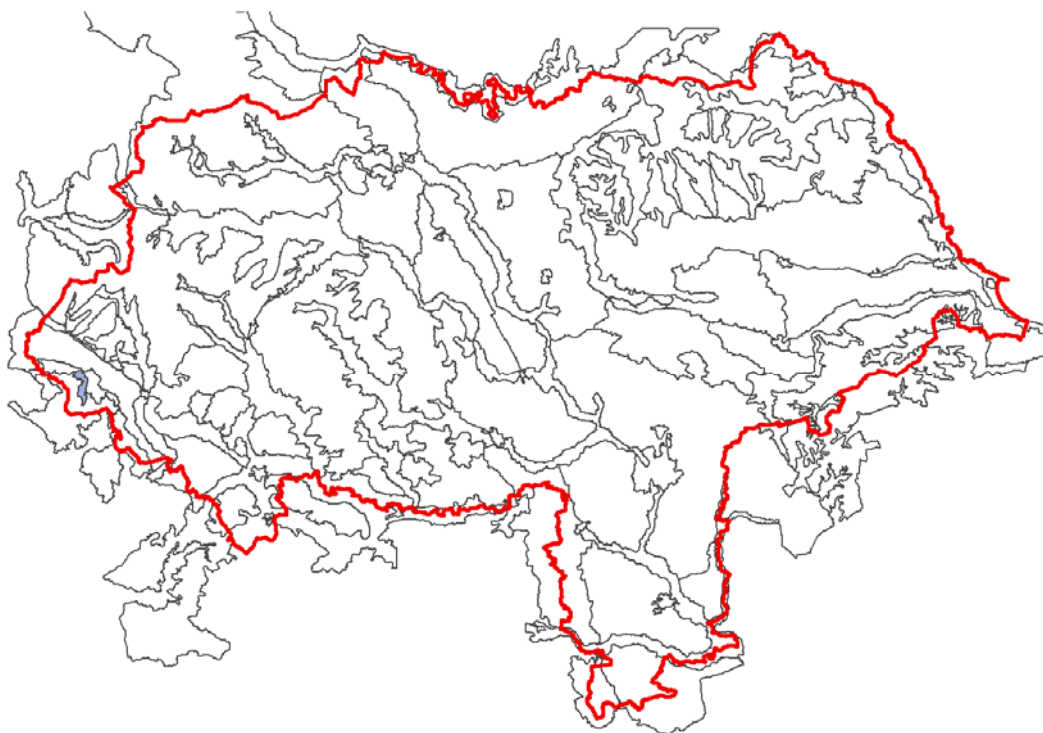
Local Landscape Character Assessments

- Craven Landscape Character Assessment (2002)
<http://www.cravenc.gov.uk/Craven/Residents/PlanningServices/PlanningPolicy/LDF/BackgroundStudies/LandscapeCharacterAssessment/>

Adjacent Landscape Character Assessments

- Forest of Bowland AONB Landscape Character Assessment (2009),
http://www.forestofbowland.com/landscape_character

Siltstone and Sandstone Valley (39)



CHARACTERISATION

Key Characteristics

- Deeply incised wooded valleys;
- Undulating lanes dip into and out of the valleys;
- Deeply incised, wooded cloughs create a strong pattern;
- Local areas of landslip on the steep valley sides create a distinctive hummocky local topography;
- Strong sense of enclosure.

Landscape Character Description

5.9.5 The Siltstone and Sandstone Valley Landscape Character Type is situated within the southwestern corner of the Study Area, within the Forest of Bowland AONB. These deeply incised wooded valleys link create a strong pattern of linear landscapes, which radiate out from the surrounding moors and fells. Formed by the action of fast flowing water the valleys cut through a mixture of siltstone and sandstone. The steep valley sides are cloaked in woodland, the only space for farming being confined to the slopes above the trees, or in the damp valley bottoms where you will find small herb rich pastures and meadows. Waterfalls, gorges, mill lodges and historic mill sites are strung along the course of the brooks and rivers, but the woods are largely uninhabited. Settlements (small hamlets and isolated farms) are generally above the tree line, or at a confluence of rivers and undulating lanes dip into and out of the valleys, crossing the watercourses with narrow packhorse bridges or fords. The valleys have a strong sense of enclosure and remoteness, which creates a contrast with the surrounding Siltstone and Sandstone High Moors and Fells.

Definitive Attributes

Geology	<ul style="list-style-type: none"> This area is dominated by superficial peat deposits which overlie bands of hard wearing sandstones and siltstones of the Mill Stone Grit Series
Topography & Drainage	<ul style="list-style-type: none"> Steep sided valleys which cut through the adjacent High Moors and Fells
Land Cover	<ul style="list-style-type: none"> The land cover comprises a mix of neutral and acid grassland resulting from grazing pressure on the land
Enclosure / Field Pattern	<ul style="list-style-type: none"> Planned enclosures with regular, dry stone wall field boundaries from an unknown date also feature
Settlement Pattern	<ul style="list-style-type: none"> Settlement pattern consists of small-scale hamlets or villages and scattered farmsteads, which are often located at the confluence of rivers
Visible Historic Features	<ul style="list-style-type: none"> Historic packhorse bridges and historic farmsteads

Forces for Change

Agricultural Change and Land Management

- Improvement of pasture to create fields that are intensively grazed and subsequent loss of species diversity and change in colour and texture of the landscape;
- Pollution of the water courses from agricultural run-off from adjacent pastoral fields;
- Deterioration in the management of riverside woodlands;
- Introduction of alien or non-native species.

Development and Infrastructure

- Large-scale renewable energy development would break up the uncluttered skylines and key views and erode the open and undeveloped character of the area.
- There is potential pressure from tourist-related development which may result in a related increase in traffic on narrow roads and tracks;
- Increasing influence of linear elements such as roads, introducing sinuous lines in the landscape.

Climate Change

- Fluctuating temperatures, precipitation and general weather patterns will continue to affect this dynamic landscape, leading to potential increases in the incidences of moorland fire and excessive erosion, the possible spread of invasive species and changes in the species composition of habitats.
- It is also possible that climate change will lead to increased flash flooding and gully erosion in upland cloughs and sykes.

Sensitivity to Change Issues

- Moderate visual sensitivity as a result of the variable sense of enclosure and moderate intervisibility with adjacent Landscape Character Types. In places, open views can be gained across the landscape, whilst in others, views are limited by woodland cover and topography;
- High ecological sensitivity as a result of a diverse patchwork of woodland (some of which is ancient) and river corridor habitats;
- High cultural and landscape sensitivity, resulting from the pattern of generally well maintained hedgerows and dry stone walls, stone bridges and remnants of historic mills

GUIDANCE

Guidance for Managing Landscape Change

Physical and Ecological Character

- **Conserve** distinctive topographic features;
- **Control** and remove invasive non-native species.
- **Conserve** and **manage** all existing woodlands;
- **Buffer** ancient woodland through new planting and natural regeneration;
- **Remove** non-native species gradually and replace with native broadleaves through new planting and natural regeneration;
- **Conserve** and **expand** semi-natural habitats along and adjacent to riverbanks;
- **Reverse** woodland neglect by bringing all woodlands into active management;
- **Balance** new woodland creation with the interests of non-woodland habitats and species.

Cultural and Historic Character

- **Encourage** the development and use of traditional skills through training and promotion of appropriate local materials that reinforce the distinct qualities of the landscape. For example, repairs to stone walls should reflect the local traditional construction;
- **Encourage** replacement planting of mature in-field and boundary trees;
- **Conserve** distinct landscape features that are vulnerable to developments such as highway improvements;
- **Conserve** and **restore** traditional buildings and settlements;
- **Protect** key views to and from the area from tall and vertical large-scale developments that may erode the open and undeveloped character of the area.

Aesthetic and Perceptual Character

- **Conserve** channeled views along river corridors and framed views to adjacent Landscape Character Types;
- **Conserve** the strong sense of remoteness and tranquility within the valleys.

Signposts to Further Characterisation Information

National Character Area

- NCA34: Bowland Fells
http://www.naturalengland.org.uk/ourwork/landscape/englands/character/areas/bowland_fells.aspx

Adjacent Landscape Character Assessments

- Forest of Bowland AONB Landscape Character Assessment (2009),
http://www.forestofbowland.com/landscape_character

6.0 CONCLUSIONS AND RECOMMENDATIONS

6.1 Conclusions

Characterisation

- 6.1.1 This Landscape Characterisation Project for the first time provides a consistent landscape classification for understanding distinctive character of the whole of the County (including York). It has identified ten Primary Landscape Units within which forty different Landscape Character Types have been identified within the Study Area. This diversity is largely influenced by the varied geology of the Study Area (including limestone, sandstone, siltstone, gritstone and chalk) and its topographic variety (including moors, valleys, vales and gently undulating lowlands). The Project also outlines how the historical development and use of the landscape and its ecological character reflect this physiographic diversity.
- 6.1.2 The Project is not an end in itself. It has established an initial landscape framework within which a variety of other character-based studies can be undertaken by North Yorkshire County Council and other stakeholders, to further develop and enhance the evidence base.

Principles and Guidance

- 6.1.3 The Project has confirmed that there are a variety of overarching key issues or drivers for change affecting the landscapes of the Study Area, including agriculture and land management, development and infrastructure, climate change and mineral extraction. These issues present both opportunities and challenges for the sustainable management of North Yorkshire's countryside and coast.
- 6.1.4 Suggested principles outlined in Section 4.0 provide a source of 'high-level' guidance to help encourage appropriate management and use of the landscape in ways that conserve and enhance valued characteristics and qualities. Spatial guidance for managing landscape change is also provided for each Landscape Character Type. This guidance is intended to act as a guide to planners, developers, land managers and all who are involved in the changing landscape, providing an integrated framework for action.

6.2 Recommendations for Further Work

Review of Local Level Landscape Character Assessments

- 6.2.1 A review of Landscape Character Assessments in the Yorkshire and Humber Region in 2006²⁶ identified gaps in the coverage and quality of 'District level' Landscape Character Assessments within the Study Area. Richmondshire District does not currently have Landscape Character Assessment coverage, and many of the existing assessments predate the current best practice Landscape Character Assessment Guidance (published in 2002).
- 6.2.2 As opportunities arise, it is recommended that local authorities, National Park Authorities and Area of Outstanding Natural Beauty Units within the Study Area consider reviewing their Landscape Character Assessments, especially those undertaken prior to the 2002 Landscape Character Assessment Guidance in order to reflect current good practice approaches and updating the assessments to reflect the Landscape Classification within this report.

Coastal/Seascape Assessment

- 6.2.3 The coastal landscapes of North Yorkshire are a dramatic and dynamic feature of the Study Area. Within the framework of the broad characterisation work set out in this Project, it is recommended that North Yorkshire County Council works with Natural England to develop a detailed seascape assessment for the County.

Urban Character Assessment

- 6.2.4 The historic city of York and the historic market towns of Whitby, Scarborough, Malton, Knaresborough, Richmond, Harrogate, Ripon and Northallerton are distinctive features of the Study Area. A full understanding of their townscape character, sensitivities to change and management needs/priorities is required to inform future planning. Urban Character Assessments should be undertaken as appropriate, such as work undertaken to inform the heritage-led Strategic Framework for Richmond²⁷. These should be existing local heritage strategic frameworks and Conservation Area Appraisals.
- 6.2.5 Urban or Townscape Character Assessment is a tool that allows the townscape character of urban areas to be understood, explained and described in a transparent and robust way by

²⁶ Chris Blandford Associates for English Nature, the Countryside Agency and Rural Development Service, September 2006, Yorkshire and Humber Region Review of Landscape Character Assessments.

²⁷ Richmond Swale Valley Initiative: http://www.richmond.org/pdf/svi_pdf/rep/sum.pdf

mapping and describing the variations in physical and cultural elements that make one area distinctive from another at a range of spatial scales.

Landscape Capacity Studies

- 6.2.6 Section 4.0 highlighted some of the primary forces for change affecting landscapes within the Study Area. Landscape Capacity Studies provide a proactive approach to guiding development to less sensitive or vulnerable areas. Capacity Studies can be undertaken for a variety of different pressures on the landscape, including renewable energy development, mineral extraction, landfill and waste; and urban development.
- 6.2.7 At the County level, it is recommended that the findings of this Landscape Character Assessment are used to inform a review and update of the North Yorkshire Sustainable Energy Study (2005) with respect to consideration of landscape capacity implications. In addition, it is recommended that the Landscape Character Assessment is used as a framework to inform more detailed assessment of the capacity of potential mineral resource areas, as part of the proposed North Yorkshire Managing Landscape Change Study.
- 6.2.8 At the District level, it is recommended that, where appropriate, consideration is given to commissioning landscape capacity studies to inform housing allocations in Local Development Frameworks.

Monitoring Landscape Change

- 6.2.9 It is recommended that framework is developed for monitoring landscape change within the Study Area following good practice²⁸ and reflecting the national level Countryside Quality Counts (CQC)²⁹ indicators for monitoring changes in the character of the English landscape within the framework of National Character Areas.

Towards a Landscape Strategy for North Yorkshire

- 6.2.10 In line with neighbouring Counties, such as Lancashire³⁰ it is recommended that consideration is given to the development of a Landscape Strategy for the Study Area. Using the Landscape Classification set out within this Project, the Landscape Strategy could formulate a general vision for the landscapes of the Study Area, in discussion with partnership authorities, focusing

²⁸ Landscape Character Assessment – Guidance for England and Scotland: Topic Paper 2 – Links to other Sustainability Tools (Countryside Agency/Scottish Natural Heritage, 2002).

²⁹ CQC is sponsored by Natural England, in partnership with Defra and English Heritage.

³⁰ <http://www.naturalengland.org.uk/landscape/landscapefullstrat/contents.asp>

on themes of local distinctiveness and accommodating landscape changes – providing broad guidance on priorities, actions and responsibilities.

Appendix A: Glossary

Agri-environmental Schemes

Agri-environmental Schemes encourage traditional farming practices to protect the environment by providing grants to land owners to manage their land in ways that conserve and enhance landscape features, wildlife and historic assets, and promote access.

Ancient woodland

Woodland area which has had a continuous woodland cover since at least 1600 AD and has only been cleared for underwood or timber production. It is an extremely valuable ecological resource, with an exceptionally high diversity of flora and fauna.

Brook

A natural freshwater stream.

Biodiversity

The number and variety of organisms found within a specified area – an important measure of the health and vitality of an area's ecology

Blanket Bog

Upland peat bog formed under conditions of high rainfall. It drapes over the Moorland Plateaux and obscures most topographic features. Depending on management the vegetation can vary from wet sphagnum dominated communities to moorland grasses and ericaceous shrub communities.

Cairn

A mound of rough stones built as a monument or landmark - the most common examples being clearance cairns, when stones were cleared from a field in preparation for cultivation, and funerary cairns covering graves or burial chambers.

Coppicing

The traditional method of woodland management in which trees are cut down to near the ground to encourage the production of long, straight shoots, which can subsequently be harvested.

Local Wildlife Site

Local Wildlife Sites are sites that have been identified for their local wildlife value and include Biological Heritage Sites within Lancashire County and County Wildlife Sites within Yorkshire.

Countryside Stewardship Scheme

The Countryside Stewardship Scheme was introduced as a pilot scheme in England in 1991 by the then Countryside Commission and operates outside the Environmentally Sensitive Areas. Farmers and land managers entered 10-year agreements to manage land in an environmentally beneficial way in return for annual payments. With the introduction of the new agri-environment scheme, Environmental Stewardship, the Countryside Stewardship Scheme is now closed to new applicants. However, existing agreements will continue until their expiry date.

Crag

A rough steep rock; origin unknown

Drumlin

A streamlined, elongated egg-shaped hillock of glacial drift formed under a moving glacier during the ice age. The long axis of the hillock is aligned parallel to the direction of the ice flow. Drumlins usually occur in swarms or 'fields'.

Ecosystem

A functional ecological unit in which biological, physical and chemical components of the environment interact.

Entry Level Stewardship (ELS)

Entry Level Stewardship, an element of Environmental Stewardship, is open to all farmers and landowners and provides a straightforward approach to supporting the good stewardship of the countryside.

Environmentally Sensitive Area

The Environmentally Sensitive Areas (ESA) scheme was introduced in 1987 to offer incentives to encourage farmers to adopt agricultural practices, which would safeguard and enhance parts of the country of particularly high landscape, wildlife or historic value.

Feature

A prominent, eye-catching element (e.g. wooded hilltop, church spire).

Fell

A mountain, or hill, or upland tract; from the Old Norse *fjall*, a rock

Gill

Used mainly in Northern England to denote a small, steep sided valley, especially one which is wooded.

Habitat

The locality, site and particular type of environment inhabited by animals and plants.

Higher Level Stewardship (HLS)

Higher Level Stewardship, an element of Environmental Stewardship, provides for targeted environmental management and makes payments for capital work plans. HLS is designed to build on ELS and OELS to form a comprehensive agreement that achieves a wide-range of environmental benefits across the whole farm. HLS concentrates on the more complex types of management where land managers need advice and support and where agreements will be tailored to local circumstances.

Hydrology

The study of surface waters (rivers, lakes and streams).

Key Characteristic

An element that contributes to local distinctiveness (e.g. narrow winding lanes, strong sense of openness).

Laithe house

A dwelling which incorporates a barn under the same roof.

Landcover

Combinations of land use and vegetation that cover the land surface.

Landform

Combinations of slope and elevation that produce the shape and form of the land.

Landscape Character

A distinct pattern or combination of elements that occurs consistently in a particular landscape.

Landscape Character Assessment

Landscape Character Assessment (LCA) is a tool for identifying what makes a place unique.

Landscape Character Type

A generic unit of landscape with a distinct and recognisable pattern of elements that occur consistently throughout the type.

Mesolithic

(c. 8,000 - 4,000 BC) An archaeological term meaning 'middle stone' age and used to describe the culture achieved during the early Post Glacial period. It was a period of transition in the early Holocene when mankind moved from the hunter gathering practices of the Palaeolithic of the last glaciation but had not yet adopted the farming practices of the Neolithic.

Neolithic

(c. 4,000 – 2,000 BC) An archaeological term used to mean 'new stone' age which describes the period of antiquity in which people began to use ground stone tools, cultivate plants and keep domesticated livestock.

National Nature Reserve

National Nature Reserves (NNRs) are established to protect the most important areas of wildlife habitat and geological formations in Britain, and as places for scientific research.

Natural England

Natural England is a governmental agency that works for people, places and nature to conserve and enhance biodiversity, landscapes and wildlife in rural, urban, coastal and marine areas. The agency seeks to conserve and enhance the natural environment for its intrinsic value, the wellbeing and enjoyment of people, and the economic prosperity it brings.

Open-field system

An area of arable land with common rights after harvest or while fallow. The fields date from the medieval period and are usually without internal divisions (hedges, walls or fences).
Outcrop -the area where a particular rock appears at the surface.

Outcrop

The emergence of a stratum, vein or rock at the surface.

Palaeolithic

(c. 500,000 – 8,000 BC) An archaeological term meaning 'old stone' age covering the period from the first appearance of tool-using humans to the retreat of the glacial ice and emergence of the Mesolithic.

Pollarding

A traditional woodland management practice in which the branches of a tree are cut back every few years to encourage new long, straight shoots for harvesting. Differs from coppicing because the cuts are made at sufficient distance from the ground to prevent them from being eaten by animals. Willow trees are often pollarded.

Registered Parks and Gardens

Registered Parks and Gardens are sites placed on the national 'Register of Parks and Gardens of Special Historic Interest' compiled and maintained by English Heritage, to identify and increase awareness of the existence of such sites, and to help ensure that the features and qualities that make these parks and landscapes of national importance are protected and conserved.

Appendix B: Acknowledgements

This Study was undertaken on behalf of North Yorkshire County Council Countryside Service in conjunction with Natural England by Chris Blandford Associates (CBA). CBA would like to thank the Client Commissioning Group for their guidance, support and inputs including:

- Malcolm Barnett – North Yorkshire County Council
- Graham Megson – North Yorkshire County Council
- Nancy Stedman – Natural England

The consultants wish to acknowledge the inputs and assistance provided by the many stakeholder organisations and individuals who contributed to the preparation of the Study (see **Appendix C**) for details.

The core CBA Project Team comprised:

- Dominic Watkins
- Emma Clarke
- Sarah De Vos
- Simon Murdoch
- Emma Wigley

Appendix C: Record of Stakeholder Consultation

NORTH YORKSHIRE AND YORK LANDSCAPE CHARACTERISATION PROJECT NOTE OF FIRST STAKEHOLDER WORKSHOP

Conference Room 4,
Foss House, King's Pool, York, YO1 7PX,
14th December 2009-12-15

Attendees

Malcolm Barnett:	Principal Landscape Architect, North Yorkshire County Council
Graham Megson:	Team Leader, North Yorkshire County Council
Philip Strand:	Green Infrastructure Policy Officer, North Yorkshire County Council
Wendy Wright:	Landscape Architect, Harrogate Borough Council
Janet Swales:	Landscape Conservation Officer, Yorkshire Dales National Park
Nancy Steadman:	Regional Landscape Advisor, Natural England
Esther Priestly:	Landscape Architect, City of York Council
Paul Burgess:	Nidderdale AONB Officer
Dominic Watkins:	Director, Chris Blandford Associates
Emma Clarke:	Senior Landscape Planner, Chris Blandford Associates

Objectives of the Workshop:

To present the emerging findings of the character assessment work; and to provide an opportunity to discuss and review the draft landscape character mapping and identify aspects of local distinctiveness.

Introduction (North Yorkshire County Council)

Malcolm Barnett gave an introduction to the workshop, noting the importance of the following key aspects in relation to the Study:

- Understanding landscapes within the Study Area, outside National Parks and Areas of Outstanding Natural Beauty;
- Raising awareness and appreciation of landscapes within the Study Area;
- Providing an evidence base of landscape character, which will feed into planning decision making;
- The European Landscape Convention in strengthening the need for this Study;
- Providing a basis to the approach for Green Infrastructure within the Study Area.

Study Objectives, Process and Outputs (Chris Blandford Associates)

Dominic Watkins gave a short presentation highlighting the following aims and objectives of the Study:

- To provide a sub-regional landscape characterisation framework/evidence base;
- To provide an interactive digital resource on landscape character;
- To stimulate community involvement and engagement;
- To develop principles and guidance;
- To enable monitoring landscape change across the County;
- To identify and explain the landscape character, time depth and sense of place for each landscape unit;
- To identify the primary sensitivity to change issues;
- To establish a set of key over-arching landscape management principles relating to climate change, renewable energy and development projects.

The Emerging Sub-regional Landscape Character Map and its Creation (Chris Blandford Associates)

Dominic noted that the Study began in April 2009 and is due to be completed in late spring 2010. It was also noted the characterisation phase of this study involved a 'top-down' desk-based approach using a

consistent set of data. The draft mapping of Landscape Character Types will then be tested against existing local level Landscape Character Assessments.

Landscape Character Types

The Landscape Character Map presented at the workshop displayed 34 Landscape Character Types. Landscape Character Types are 'distinct types of landscape that are relatively homogenous in character. They are generic in nature in that they may occur in different areas in different parts of the country. Landscape Character Types also share similar combinations of geology, topography, drainage pattern and land cover.

Study Area

It was noted that the Study Area encompasses North Yorkshire County, including York Unitary Authority. It also includes the North York Moors and Yorkshire Dales National Parks, Nidderdale, Howardian Hills and part of the Forest of Bowland Areas of Outstanding Natural Beauty (AONB). The Study Area also contains the Richmondshire, Hambleton, Scarborough, Ryedale, Harrogate, Craven and Selby Districts/Boroughs.

Fit with Existing Landscape Character Assessments

It was noted that 18 National Character Areas cover the Study Area. The following local level Landscape Character Assessments have also been completed within the Study Area:

- Yorkshire Dales National Park (2001);
- North York Moors National Park (2003);
- Nidderdale AONB (1992);
- Howardian Hills AONB (1995);
- Forest of Bowland AONB (2009);
- Scarborough Borough (1994);
- Ryedale District: northern half (1999);
- Hambleton District (1991);
- Harrogate Borough (2004) – also covers Nidderdale AONB;
- Craven District (2002);
- Selby District (1999);
- York (1996).

Several Landscape Character Assessments have also been carried out for adjacent Counties, Unitary Authorities and Metropolitan Districts. It was noted that consistency would be sought between these assessments and the emerging Landscape Character Types within North Yorkshire.

Feedback on the Draft Landscape Typology Map

The following comments were noted from discussions about the draft map of Landscape Character Types:

- Landscape Character Type 21: Dolostone Ridge needs to extend northwards as result of the pattern of field sizes and woodlands. It should also be called Southern Magnesian Limestone;
- The correlation with the National Landscape Typology should be examined, particularly in relation to the vale Landscape Character Type (encompassing the Vale of Pickering and the Vale of York). It may be possible to pick up further variations of Landscape Character Types within the vales;
- Within the Yorkshire Dales there is a distinction between the 'Yoredales' in the north and the southern dales. The limestone stripe is often a visible expression in the landscape;
- The dales may need to be looked at in a finer level of detail, depending on the relationship with the existing assessment;
- It would be useful if the document could provide signposts to local level assessments within the Study Area;
- The coastal Landscape Character Types appear to fit appropriately at this scale;

- A detailed seascape character study is being considered as a related and separate piece of work (this could potentially be undertaken in partnership with the Districts);
- A seascape character assessment exists for the Cleveland wave sea platform (Saltburn to Staithes);
- It is important to acknowledge that National Parks and AONBs exist within the Study and provide a clear acknowledgement that these landscapes are special;
- Within the present classification, the coast is more detailed than the vale – there should be greater consistency;
- Subtle changes in topography should be examined in greater detail in lowland areas, between the 0 and 50m contour;
- There is a prominent sand and gravel shelf to the south of the Vale of Pickering, to the north of the Wolds (which currently falls within the Chalk Foothills). This area covers some of the most important archaeological deposits;
- There is a local perception that the dales are different from the uplands;
- It was acknowledged that the draft Landscape Character Types did not include Historic Landscape Characterisation (HLC) data, which would provide more detailed information on field pattern to feed into the definition of a finer grain of Landscape Character Types within the Vales.
- It was also noted that the HLC data is due to be completed by the end of January 2010.

Summary and Next Steps

- On receipt of the HLC data, CBA will revise the Draft Landscape Typology Map;
- CBA will incorporate suggestions above, into production of the Draft Final Report.

Date of next workshop: Wednesday 17th February, Foss House, York

**NORTH YORKSHIRE AND YORK LANDSCAPE CHARACTERISATION PROJECT
NOTE OF SECOND STAKEHOLDER WORKSHOP**

**Conference Room 1,
Foss House, King's Pool, York, YO1 7PX,
17th February 2010**

Attendees

Richard Walker:	Head of Countryside Services, North Yorkshire County Council
Malcolm Barnett:	Principal Landscape Architect, North Yorkshire County Council
Graham Megson:	Team Leader, North Yorkshire County Council
Philip Strand:	Green Infrastructure Policy Officer, North Yorkshire County Council
Clare Iley-Christie:	North Yorkshire County Council
Carl Bunnage:	North Yorkshire County Council
Paul Jackson:	North Yorkshire County Council
Anne Cooper:	Hambleton DC
Peter Feathersone:	Richmond DC
Rachael Richardon:	Ryedale DC
Vicky Ren:	Ryedale DC
Jill Thompson:	Ryedale DC
Dave Walker:	Scarborough DC
Rebecca Harrison:	City of York Council
Jeff Pacey:	Environment Agency
Guy Woolley:	CPRE, North Yorkshire
Neil Redfern:	English Heritage
Ester Priestly:	Energy Partnership Board, City of York Council
Debbie Samuel:	Harrogate DC
Janet Swales:	Landscape Conservation Officer, Yorkshire Dales National Park
Nancy Steadman:	Regional Landscape Advisor, Natural England
Dominic Watkins:	Director, Chris Blandford Associates
Emma Clarke:	Senior Landscape Planner, Chris Blandford Associates
Simon Murdoch:	Landscape Planner, Chris Blandford Associates

Objectives of the Workshop:

To provide an update on the characterisation process; and to identify landscape sensitivities and forces for change.

Introduction (North Yorkshire County Council)

Richard Walker gave a brief introduction to the workshop outlining the importance of the Study:

- To provide an up to date, robust and sound Landscape Character Assessment covering the whole of North Yorkshire, at an appropriate scale and resolution;
- To allow positive decisions to be made about the landscape for its own sake, for the economy and for society;
- To influence the development of the Countryside Strategy and Local Development Frameworks.

Integrated Objectives for National Character Areas

Nancy Steadman gave an update on work that is currently being undertaken by Natural England on the definition of Integrated Objectives for National Character Areas. The project will:

- Focus on place making and retaining the distinctiveness and diversity of England's Landscapes;
- Provide clear and consistent descriptions of the physical, cultural and functional aspects of landscapes;

- Integrate landscape, access, ecosystem and climate change issues;
- Provide guidance to inform spatial strategies, policy development, land management priorities and local decision making;
- Provide a basis for monitoring landscape change.

Draft interim objectives will be released by early spring 2010. An update of the National Character Area descriptions is also due to be completed by summer 2010, which will inform the interim objectives. Finalisation of comprehensive integrated objectives will be complete by March 2011.

Natural England also plans to carry out a national seascape assessment in 2010/11.

Study Objectives, Process and Outputs (Chris Blandford Associates)

Dominic Watkins gave a short presentation highlighting the following aims and objectives of the Study:

- To provide a sub-regional landscape characterisation framework/evidence base;
- To provide an interactive digital resource on landscape character, which can be updated to reflect ongoing change;
- To stimulate community involvement and engagement;
- To inform principles and guidance;
- To enable monitoring of landscape change across the County;
- To identify and explain the landscape character, time depth and sense of place for each landscape unit;
- To identify sensitive landscape features or characteristics and forces for change within North Yorkshire;
- To inform landscape management principles and strategy in the county, and provide an evidence base for the countryside strategy to be developed by North Yorkshire County Council. The findings of this study will need to be fully integrated with National Character Area guidance currently being prepared by Natural England.

Feedback on the first Stake Holder Workshop

The following comments on the draft Landscape Typology were noted from discussions with Stakeholders:

- The richness of North Yorkshire's history and archaeology was noted, with humans having occupied and used the landscape for around 10,000 years. Particularly striking in this respect is the Vale of Pickering;
- The Vale of York is a settled, agricultural landscape. Cultural aspects of landscape (the way in which people have used and shaped the land) are significant in this area and provide fine grained variety within the landscape, which should be reflected in the Landscape Character Assessment;
- Large estates for instance have had a significant influence on the landscape;
- The southern magnesian limestone ridge should be identified as a separate Landscape Character Type.

The Emerging Sub-regional Landscape Character Map and its Creation (Chris Blandford Associates)

Dominic Watkins noted that the study began in April 2009 and a first draft is due to be completed by mid March. There will then be an opportunity for feedback before a final draft is submitted at the end of April.

Landscape Sensitivities and Forces for Change

The following landscape sensitivities and forces for change were identified through discussions with stakeholders:

Agriculture and Land Management

- Changes to CAP funding will affect farming activities. The Environmental Stewardship Scheme is an important tool for land management.
- Planting of bio-energy crops and biomass production may have a significant impact on the landscape. Widespread planting of Oil Seed Rape to create bio-fuel for the transport industry can have a significant visual impact on the landscape due to its bright colour. Pressure for planting of bio-energy crops would be most likely to occur in the fertile lowlands, however there may be potential in the uplands for conifer plantation. The area around Selby is particularly likely to be used due its close proximity to existing power stations. Some landscapes are better suited to bio-energy crops particularly those with large fields which enables efficient operation of machinery.
- Removal of hedgerows to create larger fields is a problem. It was felt that crops such as short rotation Willow coppice, conifer plantations or Miscanthus would have the potential to alter landscape character by creating enclosure and introducing new elements into certain landscapes. Conifer plantations also lessen seasonal change.
- The effect of bio-energy crops on biodiversity needs to be considered, particularly where they create monocultures.
- The effect on visual diversity also has to be considered.
- Some bio-energy crops may be more flood tolerant than cereals and may be appropriate choices within flood plains.
- A shift in mechanisation may lead to new structures being required.
- Decisions about which crops are grown depend on market price, which is driven by demand, together with government incentives.
- A longer growing season will provide opportunities for growing new crops.
- Farm diversification can lead to pressures on the landscape and the introduction of unsuitable new elements in sensitive landscapes.
- Piecemeal changes in land ownership can affect the landscape character with farms becoming residential dwellings.
- Many of the farmers in upland areas are near to retirement while their children do not intend to continue the business. The future of these farms and farming activities is uncertain. Farming has a large influence on the appearance and function of the landscape in upland areas.
- The landscape itself often draws tourists to an area and its special qualities need to be protected. However large volumes of tourists create pressure for the development of supporting infrastructure. Large car-parks for instance can detract from an area's distinctiveness if they are not well designed. It was suggested that effort could be made to develop tourist activities in non-designated landscapes to relieve pressure on designated areas which have a limited capacity to accommodate tourism and development.
- It is likely that desire for food security, a rising population and increased demand for local produce will make it desirable to increase productivity in optimal locations (the fertile lowlands). This would be good for the economy of the region. Increasing use of plastic has a significant visual effect. Double cropping may become common however the effect on soil and water resources and bio-diversity need to be considered.
- Contrasts between intensively managed lowland areas and extensively managed upland areas may become increasingly apparent due to pressures for efficient and targeted use of resources.
- There are opportunities to develop a deeper understanding of the landscape and to improve interpretation to allow people to appreciate its history and diversity.

Climate Change

- The use of some marginal areas has varied between arable production and permanent pasture depending on the demand for food, the availability of a suitable workforce, and the climatic conditions. With lowland areas facing increasing pressure there may be an extension of cultivation into fringe areas. This can cause a loss of biodiversity if species rich grasslands are ploughed.
- The Environment Agency is currently commissioning research on the impact of climate change on peat formation. This work suggests that the climate of 2050 will be neither cold or wet enough to sustain continued peat formation. This raises significant questions about the future of the peat bogs. Will the peat bio-degrade or blow away, or will the land be used for agriculture?
- Uncontrolled fires will also become an increasing risk.

- The Environment Agency has considerable experience in restoring degraded bogs through projects such as “Moors for the Future” in the Peak District.
- Increasing concern about food miles and food security may provide an improved market for upland farmers.
- In the Vales there may be a conflict between historic land use and the use of the land for food production, especially where the grazing of sheep has shaped the landscape.
- Wind turbine viability depends on the wind resource and connections to the grid. Associated infrastructure such as pipelines or wires and access roads also have an impact on the environment. The National Parks have recognised value and the landscape should generally be conserved, this would suggest that wind turbines would be better located in less sensitive areas.
- Increased flood risk creates the need for managed realignment of coastlines and management of rivers.

Development and infrastructure

- Population increases and shifts may affect North Yorkshire as it is currently relatively sparsely populated compared to the South East. Hull is vulnerable to rising sea levels and relocation of the residents of Hull is a possibility in the future.
- Housing quota requirements suggest that there will be increasing growth in the number of dwellings, although changing market conditions or political policies may cause this assumption to be re-examined. Growth would tend to be focused in existing large settlements such as York, Harrogate and perhaps Scarborough. The supply of previously developed land is not sufficient to accommodate projected levels of housing increase and so urban extensions will be required. These will have an impact on the landscape which may be positive or negative.
- Changes in the planning system could affect the location of growth; more localised decision making would probably lead to less housing growth, particularly in rural areas.
- Flood risk, particularly in York and Selby, limits the number of suitable sites for new housing. Housing should not be located in the flood plain (PPS25 Development and Flood Risk).
- Green infrastructure and grey infrastructure should be considered together. It will become increasingly difficult to fit infrastructure into the lowland landscape and planning is required.
- Transport infrastructure can introduce standardised elements into the landscape. New roads are often poorly fitted with the surrounding landscape and introduce a source of noise and pollution. The influence of roads can extend beyond the road into the surrounding countryside. Large warehouse developments adjacent to major roads can be prominent visual features and alter the grain of the landscape. This may be an inevitable consequence of changing retail patterns.
- Some country estates would like to release land for housing development which could be seen as an extension of the estate village settlement pattern. However development would have to be sensitive to its location.
- Off shore fish farms would have a visual effect and may affect biodiversity. Offshore mineral extraction, kelp farms or Wind Energy Developments could also have visual or ecological consequences.
- The coast is seen as a dynamic system with processes of erosion and accretion occurring. This will require managed retreat in some areas and realignment of coastal infrastructure such as roads.
- Loss of fishing fleets in coastal areas will change the economy of the area and peoples’ way of life.
- A sense of tranquillity or remoteness may be eroded by increased traffic or aircraft noise.
- Transport improvements to the A1 or A64 for instance could increase light pollution or introduce tall structures, such as lighting columns, into the landscape.

Mineral Extraction

- Coal may become viable as more easily won fossil fuel reserves become exhausted. Modern mining techniques do not require large above ground structures and have a limited visual impact. Mines would also have a social impact as they provide employment.
- Sand and gravel extractions in the lowlands provide opportunities for restoration and can provide landscape enhancement if they are restored as country parks. They can also accommodate tourist and leisure facilities. These sites should be considered within green infrastructure planning.
- Magnesian Limestone Outcrops, which provide building materials, are sensitive landscape features.
- Mineral extraction is linked to the economy and the demand for building materials.

- Mineral extraction requires supporting infrastructure such as roads and railways; where new sites are developed this may lead to new infrastructure being required.
- Waste management will also make demands on the landscape.

Appendix D: Bibliography

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