

## LCT 1: Moorland Landscape Character Type



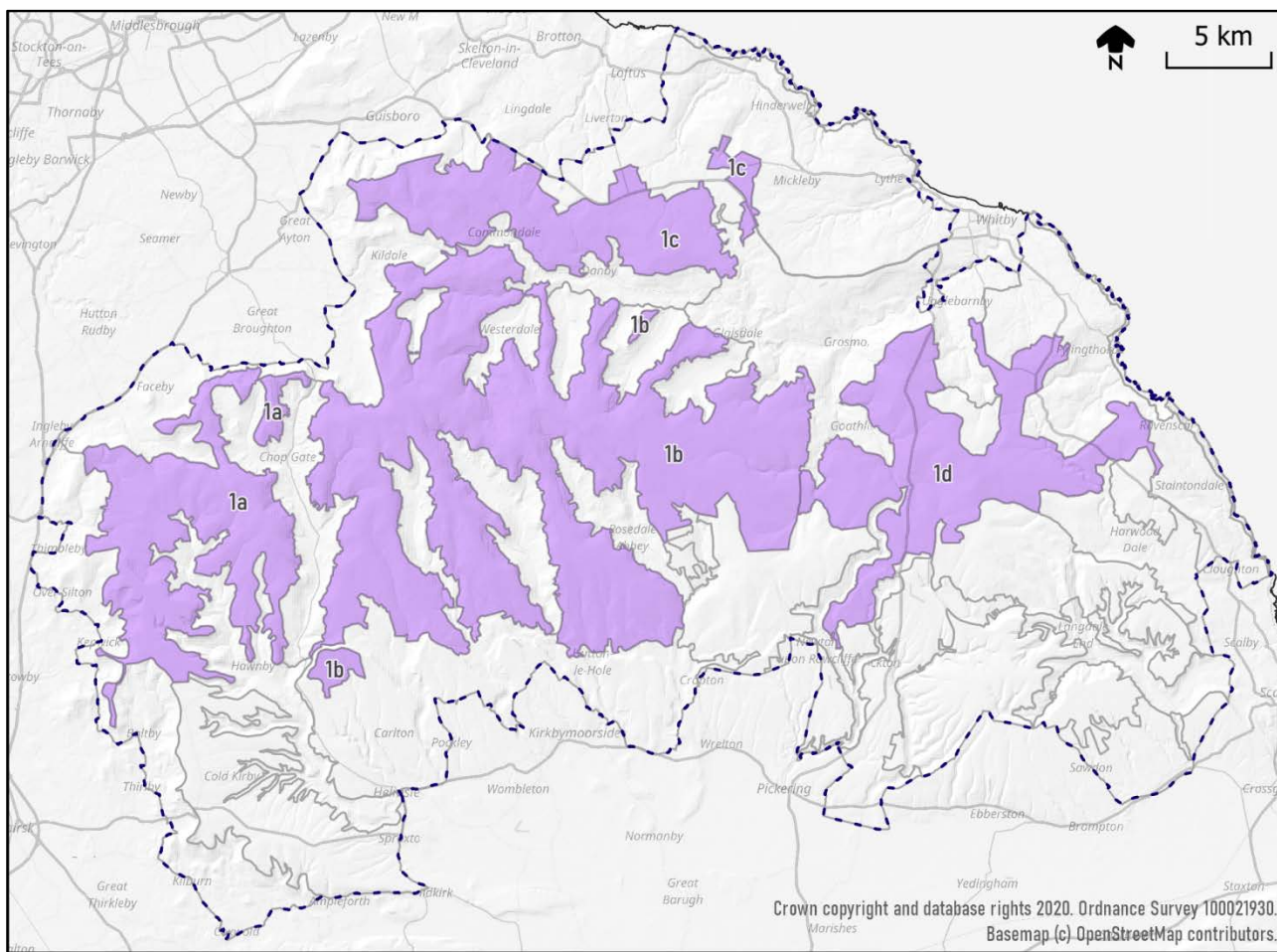
Fig.24 A typical scene within the Moorland Landscape Character Type, Young Ralph Cross. (National Park logo)

### Location, Context and Setting

This Landscape Character Type (LCT) is the largest in the National Park, covering about a third of its total area. It comprises the unsettled open moorland on the highest land including the Cleveland Hills. It covers much of the centre of the National Park, extending in all directions almost to the National Park boundaries. Its size and shape mean that it borders all other LCTs within the National Park except LCT 10 (Coast). It therefore has strong visual, physical and cultural relationships with all surrounding LCTs, and also with land outside the National Park to the west and north – and the sea to the east – which contribute to its setting. The distinctive horizons created by the Moorland LCT are key to the views, character and sense of place of North York Moors National Park and beyond.

### Summary Description

The Moorland LCT covers the unenclosed moorland which forms the heart of the North York Moors National Park. Its rolling ridges form strong, smooth, open horizons in views throughout the area. In summer, the flowering heather creates vast purple carpets, interspersed with patches of grass, moss and bracken. The LCT is almost entirely undeveloped, crossed by occasional roads and many tracks; isolated stone crosses form waymarkers. Since the late C.19<sup>th</sup> moorland has been managed for grouse shooting and sheep grazing. Its diverse habitats support a wide range of plants, insects, animals and birds. It is designated nationally and internationally for its biodiversity importance, with potential to become even more abundant and varied. It is also rich in archaeology, particularly prehistoric and industrial sites. Ridge-top barrows remain prominent features in today's landscape, as they have been for millennia. The North York Moors contains the largest expanse of heather moorland in England. Many visitors come to see it, to savour the moorland's colours, wildlife, views and dark skies, and to experience the senses of remoteness, wildness and tranquillity it provides.



Location map for Moorland Landscape Character Type (LCT)

1a = Western Moors; 1b = Central Moors; 1c = Northern Moors; 1d = Eastern Moors

## Key Characteristics

- Underlying geology of Jurassic deltaic sandstones, overlain by peat.
- Topography forms an elevated, undulating plateau, with ridges extending outwards.
- Bogs, mires, wet flushes and springs on the moorland, with streams in V-shaped valleys.
- Unenclosed moorland primarily managed for sheep grazing and grouse shooting.
- Internationally-designated semi-natural habitats of heather moorland, grass moorland, bog and scrub supporting many species of plants, insects, animals and birds.
- Few trees, largely limited to valley sides and lower slopes, and occasional isolated plantations.
- Occasional walled fields carved out of open moorland, but generally unenclosed.
- Largely unsettled, with very few buildings or structures. Those which exist often very visible.
- A few straight roads following watersheds, but a denser network of tracks and paths, many ancient. Extensive areas of access land, and also several long-distance trails across the moors.
- Outstanding surviving prehistoric archaeology, including prominent barrows on ridgelines.
- Wayside crosses identifying routes across the moor are distinctive and evocative features.
- Magnificent seasonal colour from purple flowering heather, and diversity of colours and textures from variations in moorland vegetation.
- Long views across moorland, and over surrounding lower land. Many viewpoints.
- Forms open, smooth horizons in views from surrounding lower land.
- Outstanding senses of tranquillity, wildness, remoteness and dark skies.



## Natural landscape features

The Moorland LCT covers the highest land within the National Park, rising to 454m above sea level between Bilsdale and Bransdale. It comprises a gently undulating plateau which gradually drops in height towards the edges. Dales cut through the moorland, leaving flat-topped ridges of moorland between them, locally known as riggs. Often the upper dale sides are covered by moorland, and so are included in this LCT.



Fig.25 The gently rounded form of Glaisdale Rigg, between Glaisdale (right) and Great Fryup Dale (left)

The LCT is generally underlain by Mid-Jurassic deltaic sandstones, with occasional patches of clay and sandstone in the north and south-east of the LCT, and limestone and sandstone on its southern fringes. The geology creates a smooth profile, with occasional sandstone outcrops marking moorland edges. Rocks can be seen on the surface as scattered boulder fields on the moor tops, or where the overlying peat has been eroded.

One of the most recent geological features in the National Park is the Cleveland Dyke, or Whin Sill. This is a band of igneous rock, which was intruded along a giant vertical fissure in the Tertiary period (about 55 million years ago). The resulting dolerite rock is exceptionally hard. It has largely been quarried away, leaving a V-shaped scar running for miles across the moors.



Fig.26 Cleveland Dyke quarry, Goathland Moor

The moorland is drained by a series of wet flushes, springs and minor gills, which have eroded V-shaped valleys into the moorland. There is very little open water.

The combination of geology, elevation and rainfall has led to formation of acidic peaty soils. They support a range of moorland plants including heathers, sphagnum moss, cotton grass and rough grassland (all generally occurring in wetter areas), and bracken and scrub (generally occurring on drier and more free-draining soils on valley side slopes). Often the vegetation types occur in mosaic, and together they support many species of plants, insects, reptiles, birds and animals. Moorland composition is affected by a combination of environmental conditions and management. Much of the moorland is managed for grouse shooting, and is used for grazing sheep.



Fig.27 Peat soils eroded by a moorland stream to reveal underlying sandstone. Vegetation is a mosaic of heather, grassland and moss. Fylingdales Moor

The richness and diversity of these nationally-rare upland habitats mean that the vast majority of the LCT is designated SSSI and SAC, as well as SPA for the bird life which it supports (including red grouse, curlew, lapwing, snipe, merlin and golden plover). The area has also been included in the European Natura 2000 series of sites, confirming it as an internationally important site for merlin, golden plover, and heathland and bog habitats. Small areas of moorland are within local nature reserves.

Designation	Sites
SAC	North York Moors SAC covers vast majority of LCT
SPA	North York Moors SPA covers vast majority of LCT
Natura 2000	North York Moors
SSSI	North York Moors SSSI covers vast majority of LCT; Newtondale, Scar End Wood (Wheeldale)
LNR	Harland Moor (part of Farndale LNR); part of Fen Bog LNR, Newtondale

Key designated nature conservation sites

### Cultural landscape features

Although it appears natural, the moorland is the result of generations of management, most recently for sheep farming and grouse shooting. Thousands of years of use have left their marks on the landscape.

The earliest prehistoric sites comprise scatters of flint left by Mesolithic hunter-gatherers. There are traces of prehistoric enclosures and huts, and the cairns created by clearance of stones from the ground. Many of these are now hard to see amongst the vegetation. More prominent today are the monuments dating from the early Bronze Age, including standing stones, and the barrows (burial mounds) sited on hill tops and ridges. Later prehistoric sites on the moorland include the massive earthworks of dykes, thought to divide the land into different territories.



Fig.28 Louven Howe Bronze-Age barrow, with a boundary stone on top, Fylingdales Moor

The moorland is crossed by a network of tracks, some of which may date back to the prehistoric period. The ‘Roman Road’ at Wheeldale is not of standard Roman construction, and may have been built earlier or later. Other tracks include medieval ‘pannier tracks’ used to carry goods, drove roads, and the roads or tramways used to remove iron ore and stone from quarries. Many of these routes are now followed by recreational trails, such as the Lyke Wake Walk, and the Cleveland Way. The routes of some tracks are marked by crosses, many of which are named after people, including ‘Old Ralph’, ‘Young Ralph’, ‘Lilla’, ‘Margery’ and ‘Fat Betty’. As well as aiding navigation, the moorland crosses are likely to have been connected with the local medieval Abbeys.



Fig.29 Wheeldale Roman Road

Since the Later-19<sup>th</sup> Century, much of the moorland has been managed for grouse shooting. This involves the controlled burning



of small patches of old heather to encourage new heather shoots (which the grouse feed on) to grow. Other visible landscape features are lines of grouse butts, tracks and isolated shooting lodges.

There are few other buildings or structures within the LCT. There are very occasional isolated upland farms, surrounded by fields which have been carved out from moorland and are often surrounded by stone walls. The Lion Inn sits in a prominent position by the road on Blakey Ridge. Straight lines of boundary stones follow parish boundaries, and there are also surviving park pales which demarcated medieval hunting estates. Moorland roads are usually straight, and follow watersheds or ridges. Sometimes they are lined with snow posts. The roads across the moorland tend to run north-south, and there are no east-west routes across the higher parts of the National Park.

There are many former industrial sites across the moorland, including the remains of iron ore and coal workings. Sometimes the shafts themselves may be seen, or it may only be the spoil tips and access roads/ tramways which survive. There are occasional limekilns (where limestone was burnt to create lime for building materials and as a fertilizer) but the most impressive remains are the ironstone kilns above Rosedale.



Fig.30 Bank Top iron kilns and railway, above Rosedale

Designation	Sites
Scheduled Monuments	Numerous, including cairnfields, enclosures, barrows, field systems, standing stones, promontory fort, dykes, Roman Road, wayside crosses, mines, kilns,
Listed Buildings	Lines of boundary stones

Key designated heritage conservation sites

### Perceptual qualities and views

There are many perceptual qualities associated with moorland which make it so unique and special. To some, being here brings a sense of joy and closeness to nature; in others it instils a sense of awe or fear. Either way, people cannot fail to respond emotionally to this place.

One of the most remarkable features is its sense of scale and openness. Views are long, and in some views the moorland appears to extend uninterrupted as far as the eye can see. The elevated landform creates a sense of closeness to the sky, which forms a dramatic and ever-changing backdrop, and can transform the mood of the moorland. Weather and season can also create dramatic changes. In winter, white snow, frost and mist can create an ethereal quality. In late summer, the flowering heather creates carpets of purple, extending into the distance and creating colourful horizons.



Fig.31 Carpets of heather in full flower, Ana Cross, Spaunton Moor. Credit – Ebor Images.

Different varieties of heather and ling create a range of pink and purple flowers. Further colour and texture is created by the mosaic of other moorland plants, including grasses, bracken, scrub and mosses. In addition to the spectacular sights of the moors, the evocative sounds of the moorland birds overhead, and the smell of heather, gorse, bracken and peat all add to the sense of place.

The Moorland LCT provides deep senses of remoteness, wildness and tranquillity, particularly away from roads. The dark skies enable magnificent displays of stars, and the south-east of LCT is within the Dark Sky Buffer Area. There is a strong sense of isolation here, and its elevation creates a feeling of detachment from the surrounding lowlands and towns which can be seen in distant views. Walking here, it is possible to feel entirely cut off from the rest of the world. The moorland is identified as remote land and contains the majority of the remote areas identified in National Park policy ENV3.

Because of the openness of the landscape, and the lack of built features, those that exist are very prominent. Such features include ancient barrows and wayside crosses, but also more modern features such as Bilsdale TV transmitters, the Lion Inn, and the radar early warning system on Fylingdales Moor.

Views from the moorland are magnificent, particularly from the edges of the LCT where they overlook land with contrasts in colour, texture, scale, pattern and settlement.



Fig.32 View south from Harland Moor towards the Corallian Escarpment and wooded valleys of the Limestone Hills LCT

The moorland, and the views from it, can be appreciated from the roads and paths which cross the moors, and also from the access land which covers most of the LCT. There are numerous viewpoints marked on the OS map, and many are linked by the popular Cleveland Way and other routes.



Fig.33 View to Robin Hood's Bay from OS viewpoint on Stoup Brow/ Scarborough Road, Brow Moor near Ravenscar

The presence of moorland is fundamental to views from surrounding LCTs, and land outside the National Park. It provides strong, smooth, open, seasonally colourful horizons which are intrinsic to the character of the North York Moors.

## Ecosystem Services provided by the Moorland LCT

Type of Ecosystem Service	Existing Contributions	Opportunities
Cultural Services	Exercise and recreation within the Moorland LCT allows people to benefit from high levels of tranquillity, remoteness, wildness and dark night skies, and to enjoy magnificent views. This promotes good health and wellbeing, and enables people to obtain non-material benefits such as reflection, aesthetic experiences and spiritual enrichment. Moorland contains a rich archaeology and history which contributes to cultural heritage and provides educational opportunities to increase archaeological understanding.	This LCT can continue to contribute to people's good health and wellbeing. There are opportunities to enhance viewpoints and remove vegetation which is currently blocking views. There are also opportunities to enhance cultural services through improved access and sensitive interpretation of historic sites.
Provisioning Services	Grazing sheep provide food and fibre, and grouse are also a source of food. Streams originating on the moors supply fresh water.  In the past, moorland would have provided other provisioning services, as traditional uses of common-land included peat for fuel; heather and gorse for animal fodder, and bracken for animal bedding. Gorse was traditionally used for cooking because it burns at high temperatures.	There are opportunities to carefully introduce grazing animals to reduce bracken encroachment.
Regulating Services	Moorland plays a vital role in the water cycle, absorbing rainwater like a giant sponge, and slowly releasing it into streams and rivers. By slowing the amount of time it takes for rainwater to get into rivers, moorland helps to reduce the risk of flooding downstream. Moorland plants provide habitat and food for pollinators.	Improving natural water regulation (e.g. by removing artificial moorland drains and allowing colonisation of trees in upland valleys) will become ever more important as storms intensify due to climate change. Supporting threatened pollinators is key.
Supporting Services	Peat soils store carbon, preventing its release into the atmosphere and thereby helping to prevent climate change. They also support rare moorland habitats for many species of plants, insects, animals and birds.	Increasing the depth and health of peat, and preventing its loss, will help it to store additional carbon, and also to support healthy moorland habitats.

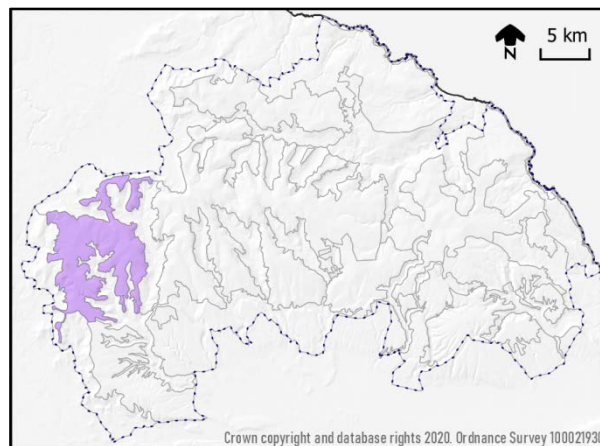
## Landscape Character Area Descriptions

There are four distinctive Landscape Character Areas (LCAs) within the Moorland LCT, each with a unique 'sense of place'. These are described on the following pages.

## Landscape Character Area 1a: Western Moors



Fig.34 A typical scene in LCA 1a, looking up at Carlton Bank and south to the ridges of Whorlton Moor. A former quarry site is visible on the hillside, which is also the route of the Cleveland Way.



Map showing the location of LCA 1a within the National Park

This LCA is located in the west of the National Park. It comprises the elevated, open and expansive uplands of the Cleveland and Hambleton Hills. It forms an undulating plateau, but with a repeating pattern of 'shoulder' shapes such as Carlton Bank, above.

Its location at the edge of high ground means that there are panoramic long views out across LCT 9 (Western Escarpment) over the Vale of York to the west. These can be experienced from the Cleveland Way, and from a series of viewpoints close to the National Park boundary. One of these is at the Wainstones, a series of sandstone outcrops which have been eroded by wind and rain to create pillars and buttresses.

There are also views into Ryedale (LCA 2a) and Bilsdale (LCA 2b) from the east and south of the LCA. Moorland forms the horizon in views from these valleys below, and lines of prehistoric barrows are features on the skyline.

Arden Great Moor is underlain by younger limestone rocks (similar geology to the Limestone Hills - LCT 5) rather than sandstone. It is one of the most inaccessible parts of the LCA, and rises as a steep escarpment on the western side of Ryedale.

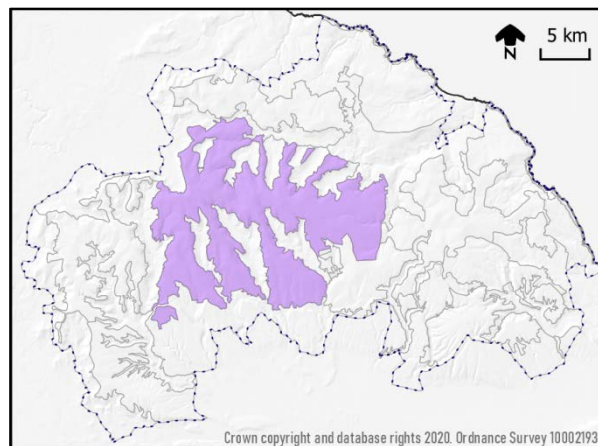
There are very few roads within LCA 1a, with the few roads which do pass through it often at the periphery. However, there are many paths and tracks, including the Cleveland Way. Some of these tracks are ancient in origin, and some were associated with the many mines and quarries (for alum, ironstone, jet) which were formerly present here, and which have left their marks on the landscape.



## Landscape Character Area 1b: Central Moors



Fig.35 A typical scene in LCA 1b at Rosedale Head, the watershed between Danby Dale and Rosedale. Moorland extends as far as the eye can see, and forms an unbroken horizon. The stone (engraved on the other side) was placed here by the North York Moors Association to mark the millenium.



Map showing the location of LCA 1b within the National Park

This LCA comprises the largest and most elevated part of the Moorland, in the centre of the National Park. It reaches 454 m above sea level and stretches from Bilsdale Moor to Wheeldale. It forms a broad east-west band, from which numerous ridges extend to the north and south. Between these ridges are the Moorland Dales which form LCT 2. There are close visual, physical and cultural connections between this LCA and the dales within it. At the peripheries of the LCA, other LCTs have a localised influence, including Central Valley (LCT 8) to the north; Limestone Hills (LCT 5) and Forest (LCT 3) to the south and Western Escarpment (LCT 9) to the west.

Despite the strong connections with intervening lower land, in some views the dales cannot be seen, and the moors appear as a series of ridges stretching into the distance.

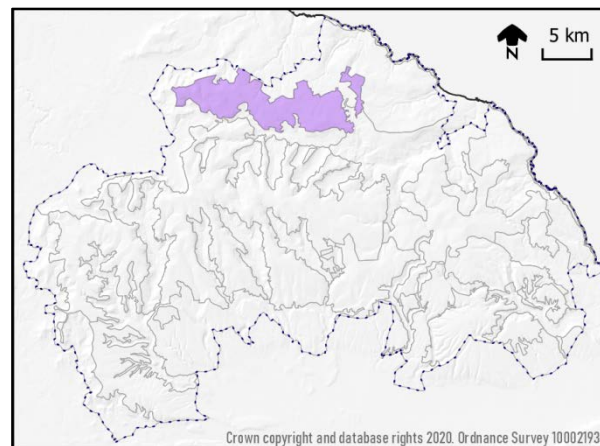
There are few roads across the moor, although those which exist have a strong character and are popular with motorists. Much of the LCA can only be reached on foot, and consequently forms some of the most remote land within the National Park. This LCA is also notable for the extensiveness and scale of the unbroken moorland which can be experienced here.

The archaeology is exceptional, with several of the largest Scheduled Monuments within the National Park contained here. Most are prehistoric (including cairnfields, barrows, stone circles, standing stones and field systems), but there are also the remains of mine workings and evocative medieval crosses.

## Landscape Character Area 1c: Northern Moors



Fig.36 A typical scene in LCA 1c, at Danby Beacon. The coast and sea are just visible at the right of the picture.



Map showing the location of LCA 1c within the National Park

This LCA is located in the north of the National Park and is generally lower than the moorland of LCAs 1a and 1b. It contains a small outlier on the eastern side which includes Newton Mulgrave and Ugthorpe Moors. Its topography forms an undulating plateau which slopes gradually down towards the west, north and east, and drops more sharply to the south towards Esk Dale.

LCT 1c contains the well-known landmark of Danby Beacon, which has magnificent 360 degree panoramic views and is very popular with visitors. It can be enjoyed on foot, or by those who prefer to access the location by car.

Views and sense of place are influenced by the surrounding LCTs of Coastal Hinterland (LCT 4) to the east, Central Valley (LCT 8) to the south and Western Escarpment (LCT 9) to the west. The LCA is located close to the National Park boundary, and therefore contains many views out over the setting of the National Park, including Teesside to the north and the Vale of York to the west.

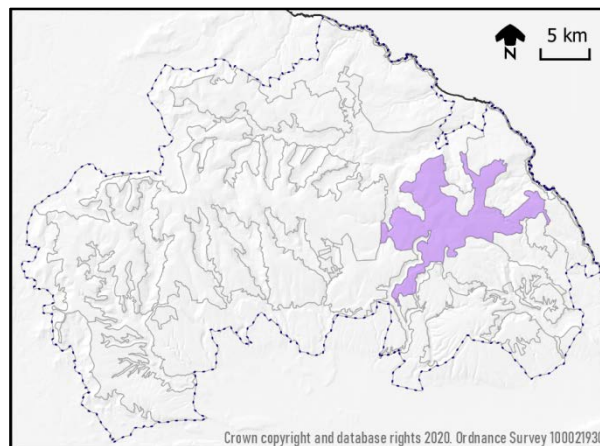
One of the most striking features of this LCA is the strong, open moorland horizons which form the backdrop to surrounding lower land. Lines of prehistoric barrows can be seen on some ridgelines, but horizons are generally devoid of buildings or trees.

There are occasional straight roads lined with snow posts which add to the sense of remoteness. There is a sense of detachment from the surrounding lowlands and towns which can be seen in distant views.

## Landscape Character Area 1d: Eastern Moors



Fig.37 A typical scene in LCA 1d, from Lilla Cross, looking south towards Langdale Forest



Map showing the location of LCA 1d within the National Park

This LCA comprises the eastern part of the Moorland LCT, to the east of Wheeldale Road. It is generally lower than the moorland further west, giving a sense of being ‘in the moor’ rather than ‘on the moor’. It includes a number of moorland ‘fingers’ which extend into surrounding LCTs: The ridges of Greystones Rigg and Stony Marl Moor extend into LCT 4 (Coastal Hinterland) almost to the coast and have a strong visual connection with the coast. Goathland Moor/ Sleights Moor has a strong connection with LCT 8 (Central Valley) and Levisham Moor is surrounded by LCT 6 (Glacial Channels). The proximity of these LCTs, as well as LCT 3 (Forest) and LCT 7 (Limestone Dales) all have local impacts on its setting, views and sense of place.

This LCA contains the natural north-south route across the North York Moors between Pickering and Whitby using the topography of the valleys and a relatively low section of moorland. The route is likely to have been exploited since prehistoric times, and the Wheeldale Roman Road has various conjectured dates for its construction. The Pickering-Whitby railway (now the North Yorkshire Moors Railway) and the A169 between Pickering and Whitby also run north-south across the LCA. The distinctive linear feature of Cleveland Dyke/ Whinstone Ridge runs roughly east-west. Its hard igneous stone has been quarried away for use in road building, leaving a V-Shaped scar across the moor. Levisham Moor contains the most extensive Scheduled Monument in the National Park; half-hidden in the heather are traces of human occupation stretching back thousands of years, from Bronze Age barrows to late Iron Age boundary dykes. The mounds, ditches, banks and ridges are evidence of burial sites, fortified farmsteads, enclosures and field systems.

RAF Fylingdales Early Warning Station is a prominent and distinctive feature in the landscape, visible from the A169. Its famous ‘golf ball’ radar domes were replaced by the current truncated pyramid structure in 1992.

Levisham Moor is within the Dark Sky Core Area, and much of the southern part of the LCA is within the Dark Sky Buffer. Dark skies are an important characteristic of the LCA.



## Forces for Change acting on the Moorland LCT

Issue/ Force for Change	Landscape sensitivities and potential impacts	LCAs affected
Loss of moorland habitats and soils	<p>Past drainage of moorland has led to drying-out and loss of peat and associated habitats. Work is now underway to block moorland drains to re-wet the moorland. This encourages healthy peat which absorbs carbon; enables the moorland to act as a ‘sponge’ in times of high rainfall, and also reduces rates of soil erosion in times of drought. Occasional 20<sup>th</sup> Century forestry plantations in isolated moorland locations are visually prominent and have resulted in loss or damage to moorland habitat. However, some conifer plantations have been reverted to moorland.</p> <p>Controlled burning associated with grouse management results in a ‘patchwork’ effect of small rectangular patches of burnt vegetation, which can appear artificial and detract from the moor’s ‘wild’ feel. In a few areas, reduced grazing has resulted in bracken and scrub encroachment. This has tended to occur on steeper slopes at the edges of moorland, and is noticeable from many of the dales below. Bracken can be hazardous to animals and humans, has limited ecological value, and creates thick layers of persistent litter which provide an ideal environment for tick – carriers of diseases affecting people, livestock and wildlife.</p> <p>The recent infestation of heather beetle is leading to loss of heather, and limiting its flowering, which impacts on the health of the heather and its appearance as purple carpets across the moors. It is likely to lead to a shift away from heather-dominated habitats to grass-dominated habitats, with potentially significant and long-lasting consequences for the landscape and ecology.</p> <p>There is also concern over declining numbers of moorland birds such as waders and merlin.</p>	All
Uncontrolled fires	<p>Damaging fires are most often started accidentally by barbeques or discarded cigarettes landing on tinder-dry vegetation. Uncontrolled burning often leads to the peat itself catching fire, which releases carbon into the atmosphere, and also reduces the peat’s ability to store carbon in the future. Uncontrolled moorland fires are difficult to extinguish, particularly in remote areas far from sources of water. Over much of the National Park, heather (not peat) is currently burnt on a cycle to prevent a build-up of old heather. This helps to prevent uncontrolled fires, and produces a diversity of heather of different ages. There is ongoing discussion regarding the environmental consequences of heather burning.</p>	All
Development and structures	<p>Features on open moorland (for example isolated buildings or communications masts) can be seen for miles, particularly when they break otherwise smooth skylines.</p>	All
Loss of tranquillity, remoteness and dark skies	<p>As well as visual impacts, development and structures can impact on the sense of remoteness and tranquillity, and affect dark skies. RAF Fylingdales is a notable source of light pollution within this LCT. Tranquillity can be affected by increases in numbers of people, noise</p>	All, but esp. 1d

Issue/ Force for Change	Landscape sensitivities and potential impacts	LCAs affected
	and traffic. Impacts associated with activities such as off road motorcycling, mass participation events and sport shooting can affect these qualities.	
Damage to/ loss of archaeology	Moorland archaeology is vulnerable to exposure through erosion (both natural and resulting from human activity) and loss of peat. It may also be impacted by re-wetting schemes or tree / scrub colonisation. Hidden archaeology may be unintentionally damaged. Bracken damages buried archaeology physically and chemically.	All
Recreation and visitor pressure	Moorland habitats are often fragile, and vulnerable to erosion. Well-used footpaths may become wider, with multiple tracks, or deeper through use. Path erosion is exacerbated by bicycles and off-road vehicles (particularly scrambling bikes). Parked and moving vehicles are often highly visible in open moorland, and informal parking (for example on narrow roads or in passing places) causes problems for other road users. Signage and interpretation panels can create visual 'clutter' in an otherwise open landscape. Litter and antisocial behaviour damages habitats and wildlife and increased wildfire risk.	All
Overgrowing of viewpoints	Some viewpoints marked on the Ordnance Survey map, particularly along roads at the edges of moorland, are no longer managed, and are overgrown with vegetation	All
Additional tree cover	There are opportunities to accommodate additional tree cover in moorland valleys, edges and steeper slopes, particularly where bracken has become established. However, woodland creation on open moorland may have negative consequences on protected moorland habitats, deep peat, long views, archaeology, and the sense of openness which is so fundamental to the moorland's character.	All
Changes in adjacent LCTs or outside the National Park	Views from moorland are often long and elevated. They often include land/ sea within other LCTs, or outside the National Park. This intervisibility means that developments outside the Moorland LCT are likely to affect views from moorland, particularly if there is a cumulative impact. The moorland/ forest boundary is particularly noticeable. The inherent qualities of the Moorland LCT (including long views, tranquillity and dark skies) make it particularly sensitive to developments beyond its boundaries.	All
Climate change	Moorland habitats are vulnerable to changes in climate, with moorland becoming increasingly vulnerable to damaging fires if peat and heather are dry. Dry peat is also at increased risk of soil erosion. However, moorland also has a vital role to play in reducing the impacts of climate change, for example through storing carbon in peat, and absorbing water to reduce downstream flood risks.	All

## Landscape Guidelines for the Moorland LCT

### Protect

- Protect the open, smooth, moorland horizons.
- Protect the rare and diverse moorland habitats recognised through international designation.

- Protect peat soils to enhance the moorland's function as a store of carbon and water.
- Protect moorland archaeology through integrated management and a clear understanding of the implications of change for physical remains. Target Scheduled Monuments at Risk with appropriate management wherever possible.
- Protect the qualities of remoteness, wildness and tranquillity, and the dark night skies.
- Protect views from summits and viewpoints from intrusive development or land use changes.

## Manage

- Manage moorland to maintain and enhance its diversity of rare habitats and species. Moorland Management Plans should be bespoke for specific localities, responding to their context and unique combinations of habitats and conditions. Management Plans should be prepared collaboratively by landowners, land managers and conservation organisations.
- Manage moorland to minimise the risk of damaging fires, for example by encouraging the re-wetting of mires, and preventing extensive areas of flammable old heather. Continue with a programme of public education regarding the risks of fires from barbecues and dropped litter.
- Continue to try and prevent bracken encroachment into heather and grass moorland.
- Consider opportunities for dynamic boundaries between trees, scrub and moorland where this LCT adjoins other LCTs.
- Manage key viewpoints, ensuring that they are kept open and free from vegetation growth.

## Plan

- There are strong landscape objections to the siting of structures such as communications masts within this LCT, due to the open and undeveloped character of the landscape and the importance of the uninterrupted horizons. This is in addition to the restrictions on permitted development rights associated with SSSI, SPA and SCA designations. Proposed developments or changes associated with existing buildings (for example isolated upland farms) should be evaluated on a case-by-case basis.
- Promote Natural Flood Management Techniques where appropriate.
- Where change to historic buildings / structures is enabled through the planning system, ensure that it protects / enhances the significance of the heritage asset in question and is informed by a proper understanding of the asset in advance.
- Developments or activities which appear to bring human influences closer should be avoided.
- Seek opportunities to revert conifer plantations on deep peat to moorland habitat. In particularly fragile locations it may be more appropriate to let nature take its course than to use heavy machinery.
- Encourage native wooded habitats where suitable, especially on bracken slopes at the edges of the moorland. Reduce downstream flooding and increase habitat diversity by encouraging native woodland and scrub to develop in moorland valleys. However, specialists should first be consulted to check for archaeological, ecological and public access constraints. The impact on views from lower land, including moorland dales, should also be considered.



- Engage in collaborative research to understand the conditions leading to the current outbreak of Heather Beetle (climate change, increased nitrogen levels and wetter moorland are all possible causes). Identify solutions to prevent attacks and help moorland recover quickly.