

Type 9

Intermediate Moorland and Plateau



These are medium to large scale landscapes ranging from open exposed heath moorland, intensely farmed ridges to extensively planted coniferous plateau. Improved grassland is a dominant land cover throughout. Horizons are wide and the scale vast. Colours are muted and monochrome.

Sub types:

9a Open Moorlands

9b Rolling Farmland and Heath

9c Forests

9d Ridges

Open Moorlands

Location

This sub type is found between Kershope Forest and Spadeadam Forest near Bewcastle in the north, and to the east of Distington and Frizington on the west coast.

Key Characteristics

- High mostly open landscapes
- Undulating semi-improved and unimproved pasture
- Open rough moorland
- Areas of deciduous woodland
- Areas of peat and raised mire

Physical character

There is a mixture of Carboniferous gritstone and mudstone overlain by large areas of peat in the north and coal measures and Permian sandstone with pockets of peat in the west. In the north undulating land is found at between 150-250m AOD with parts rising steeply to 500m. It is intersected by becks, streams and rivers. In the west the topography is less undulating and rises to around 200m adjacent to a moorland ridge and the River Keekle cuts through the landscape and helps define the boundary with the moorland ridge.

Land cover and land use

This is a high, generally open landscape. The predominant land cover is a mixture of semi-improved pasture in large rectangular 'lots' and extensive areas of unimproved and unfenced moorland. In some places the open moorland has been semi improved for farmland and has a more managed character. This is typically found in the west. Fields are mainly bounded by species rich hedges with hedgerow trees or wire fences. Areas of wet mossland intersperse the pasture and moorland and retain a wilder and more unmanaged character.

Deciduous and semi natural woodland can be found in small pockets, shelterbelts and along streams and becks in the more sheltered valleys. These often have straight, crisp edges. In the north the distinct lack of conifer plantations contrasts with the adjacent landscapes and helps define its boundaries.

The lower parts of the landscape are lightly settled, either with small settlements or dispersed, isolated properties. Roads are rural in character and skirt around the lower parts. Pylons run through the west and form prominent vertical features in the open farm and moorland. In the west there is evidence of past mining activities but much of the land has been restored to pasture and moorland.

Ecology

This is a landscape of rough pasture with extensive areas of rush pasture and purple moor-grass and areas of acid grassland. Upland oak woodland is present in steep river valleys and one of the largest areas of alder wet woodland in Cumbria is found south of Bewcastle. Areas of upland heathland are occasional to rare in this landscape, whilst blanket bog is extensive south-east and north-east of Bewcastle. Species-rich springs and flushes are locally frequent, particularly where there is a calcareous influence to the irrigating waters. In the west this landscape provides over wintering habitat for internationally important numbers of Hen Harriers.

Historic and cultural character

The settlement pattern is generally dispersed with some clusters of 19th century industrial workers housing. The fields are often large and formed by late moorland enclosure. There is good preservation of earthworks including prehistoric settlements and medieval shielings. The landscape type features remains associated with the

border, including fortified sites, Roman roads and forts and evidence of coal mining around Moresby.

Perceptual character

In the north the large open landscapes give a feeling of remoteness and the darker, rougher moorland contrasts with the greener, smoother improved pasture. The changes in colour and texture and feeling of remoteness can be accentuated by changes in the seasons and weather. Views stretch to the Scottish Hills and are uncluttered and framed by forest. In the west the landscape still feels large and open but less remote due to its more managed look and past uses. However sudden changes to poor weather can lead to a feeling of remoteness in higher areas. Despite the row of pylons it retains large expansive views of the Lakeland Fells which provide a dramatic backdrop to the landscape.

Sensitive characteristics or features

The open character and expansive views across moorland and higher farmed areas are sensitive to large scale infrastructure development that could obscure or significantly interrupt the views. The small wooded valleys and shelterbelts that intersperse the open moorland and farmland are sensitive to changes in land management. The species rich hedgerows and wet mossland and flushes that provide biodiversity interest away from moorland and the archaeological remains and earthworks that provide cultural interest are sensitive to changes in land management. Contrast of rough moorland with improved pasture provides interest and is sensitive to changes in land management.

Vision

This landscape will be enhanced through restoration and enrichment creating a harmonious balance between the moorlands and woodlands and mining and agricultural features. Semi-natural grassland will be conserved and enhanced, fragmented patterns of rough moorland will be repaired, areas of blanket bog will be restored and semi-derelict pastoral fields will be allowed to revert back to moorland. Degraded areas and neglected

sections of landscape will be restored back to their former beauty through the creation of new landscape features including woodland, wetland and strengthened hedgerow patterns.

Changes in the Landscape

Over the next 10 – 20 years this landscape could be subject to the following changes or issues:

Climate Change

- Climate change mitigation and the Government's commitment to an increase in renewable energy could see increased interest in large scale wind energy schemes and short rotation coppicing and forestry.
- Areas of active blanket bog and peat provide the best carbon sinks after woodland and can assist with carbon sequestration.

Management Practices

- Agricultural intensification and inappropriate management such as overgrazing, burning and drainage could result in the loss of moorland, semi natural grassland, woodland, wetland and stream features.
- Future agri-environment schemes may support beneficial changes in the landscape.
- Planned and incremental expansion of villages could result in the loss of landscape features and field patterns.

Development

- Large scale wind energy infrastructure developments and other vertical structures such as, communication masts, pylons or overhead transmission lines could erode the open and remote character of the landscape and reduce the nature conservation interest.
- As energy markets change there could be new interest in open cast coal mining which could arise in temporary landscape change.

Access and Recreation

- Informal recreation is likely to continue along public rights of way and across the extensive areas of open access land.

Guidelines

Climate Change

- Forestry and coppice planting should reflect any field patterns and the grain of the landscape. They should be sited and designed so that they integrate well with the landscape, retain the open moorland character and do not sit as large unbroken blocks of planting.
- Projects should be encouraged that seek to improve the condition of areas of peat to optimise their carbon capture potential.

Natural Features

- Investigate presence of remnant heather and regenerate through management programmes.
- Manage semi-natural grassland to enhance biological diversity including controlled light grazing, control of bracken and rushes.
- Restrict further agricultural improvement of moorland and unimproved pasture including ploughing, reseeding application of fertiliser, liming or herbicide treatment.
- Enhance and/or recreate wetland including flushes, small tarns and marshy hollows. This may include preventing drainage improvements and blocking existing drains to maintain a high water level, preventing overgrazing and poaching by stock and controlling scrub encroachment.
- Protect gills and becks from stock to encourage development of diverse ground flora.
- Manage areas of blanket bog appropriately and sensitively including the reduction of stocking levels, blocking ditches, removal of conifers and avoidance of burning.
- Ensure habitat connectivity is a priority and the introduction of eco-corridors or 'islands' to create habitats in association with Biodiversity Action Plans (BAP).
- Create a mosaic of irregular shaped areas of mixed woodland sensitive to land form particularly on former areas of coal working and on marginal land and valleys.
- Create woodland belts as sheltered areas suitable as wildlife habitats and for establishment of native woodland.

Cultural Features

- Maintain and enhance the pattern of hedgerows with additional planting and supplementary planting of

scanty hedgerows.

- Consider the removal of derelict hedgerows on the more exposed parts to allow reversion to open moorland.
- Planting of deciduous trees as feature trees, within hedgerows, along water courses and in tree groups to create more interest in the landscape and to act as a foil to the coniferous woodland in the background.
- Create ecological corridors to enhance landscape and nature conservation value.
- Encourage planting and traditional management of hedgerows and replace fences where possible with hedgerows.

Development

- Avoid siting development on prominent edges of the plateau taking advantage of the natural containment offered by intermediate ridges and horizons.
- Minimise the impact of development by careful siting and design and seek environmental gains such as heather moorland restoration.
- Carefully manage the expansion of major developments such as quarrying, mining, opencast coal (due to the location of the resource).
- Avoid siting large scale wind energy, and other vertical structures such as telecommunications masts, pylons and overhead transmission lines in open and prominent areas where it could degrade the open and expansive character. They should be sited to prevent visual clutter with existing pylons.
- Minimise adverse effects of tall and vertical structures such as pylons and turbines through careful siting and managing the numbers of turbines to prevent them becoming a dominant feature in the landscape.
- Ensure new development respects the local landscape character and vernacular.

Access and Recreation

- Public rights of way and access to open access land should be well maintained to allow quiet enjoyment and appreciation of the areas.
- Opportunities should be developed to promote and enhance existing recreation routes by improving waymarking, providing appropriate surfacing, gates and gaps and interpretation.

Rolling Farmland and Heath

Location

This sub type can be found in the east of the county south of Appleby running alongside the Eden Valley, and in the south of the county to the east of the M6 motorway near Kendal and Kirkby Lonsdale. A small part of this type adjacent to the Lune Valley meets the criteria for National Park designation and is being considered for designation in 2010/11.

Key Characteristics

- Shallow relief plateau with ridges and hollows
- Rolling farmland
- Occasional rocky outcrops
- Rough pasture with wet flushes and semi heathland
- Coniferous plantations
- Narrow wooded valleys with wetland features

Physical character

The geology is a mixture of Carboniferous limestone and Silurian slates and gritstones. The land is relatively high, rising between 150-250m AOD. The underlying limestone geology gives rise to a rolling appearance in the east and a plateau landscape where the Silurian rocks occur between the Kent and Lune Valleys. The plateau has a shallow relief of ridges and hollows and occasional rocky outcrops and a knobbly outline to the ridges.

Land cover and land use

There is a varied land cover pattern with improved pasture dominant in lower parts. Medium sized fields are enclosed by hedges, some with significant hedgerow trees, and to a lesser extent, stone walls. In higher parts and along ridge tops rough and poorly drained pasture is dominant, often interspersed with patches of heather,

bracken or rushes. The land is intersected by streams, tarns and marshy hollows.

The landscape is punctuated by small and medium sized coniferous plantations particularly on the higher ground. Small deciduous woodland is evident but sparse, and gorse and willow scrub can often be found.

Small villages, scattered hamlets and farms are connected by a network of rural roads that cut across the landscape. Masts and pylons have begun to change the character in some areas in the south. The Settle to Carlisle railway forms a liner feature crossing the landscape in the east, and Killington Reservoir is an important manmade feature in the south.

Ecology

This is a landscape of rough and improved pasture containing areas of rush pasture and purple moor-grass, upland heathland and acid grassland. Of note in the area south of Killington Reservoir is the presence of a series of small raised bogs, whilst conifer plantations in this area provide nest sites for long-eared owl. Species-rich roadside verges are a feature of this landscape south of Appleby and above the Lune valley.

Historic and cultural character

In the south there is a dispersed settlement pattern with limestone built farmsteads often featuring date stones on both houses and farm buildings. In general buildings date from the late 17th century onwards. The field system is a mixture of ancient, former common arable and parliamentary enclosure. In the east, however, the settlement pattern is based on nucleated villages with a field pattern of early enclosures often containing fossilised strips.

Perceptual character

The landscape is medium to large scale and open. On higher land there are some wide views of surrounding fell and dale tops, adjacent valleys and, in the south, across to Morecambe Bay. Despite the introduction of some large scale vertical discordant features, the limited nature of these enables the landscape to retain the feeling of a peaceful, working farmland. Seasonal changes bring contrasts in colours between rough and improved pasture, heather and bracken and changes in weather can provide a feeling of containment when long views are obscured.

Sensitive characteristics or features

Open ridges along plateau edges and expansive views to the Yorkshire Dales, Lakeland Fells and Morecambe Bay are sensitive to poorly sited and scaled development, including large scale infrastructure development. The matrix of hedges and walls that reinforce the field pattern and contrast with more open and rough pasture found in higher parts are sensitive to changes in land management. The peaceful countryside character is sensitive to agricultural intensification and changes in land use.

Vision

This landscape will be enhanced and the core of rough heath and grassland will be retained.

The visual contrast between the open rolling farmland and the heath will be strengthened. The existing rough grassland and features, such as marshy hollows, will be maintained. Remnant heath will be conserved and enhanced and adjacent improved land will be allowed to revert back to heath where fragmentation has occurred. Woodland areas will be expanded as an alternative to agriculture as this will make a positive contribution to the landscape. Only development which is of high quality and can be contained by the natural rolling topography will be accepted and the uncluttered natural character of the rolling farmland and heath will be conserved.

Changes in the Landscape

Over the next 10 – 20 years this landscape could be subject to the following changes or issues:

Climate Change

- Climate change mitigation could see increased interest in short rotation coppicing and forestry.

Management Practices

- Agricultural improvements on marginal land, and pressure to convert semi-natural areas to improved pasture.
- Localised symptoms of neglect including dilapidated walls, replacement of hedge and walls by fences, and grazed farm woodlands.

Development

- The Government's commitment to an increase in renewable energy could see growing pressure for energy infrastructure developments such as large scale wind turbines.
- Upgrades to the national grid and new pylons, communication masts and caravan parks could also erode the character of the area.
- The M6 corridor as an element in the landscape could have the potential to attract new large scale commercial development. Improvements to surfacing, lighting and information systems along the motorway could affect its appearance and people's awareness of it in the landscape.

Access and Recreation

- Public rights of way provide a network of routes that enable quiet appreciation and enjoyment of the countryside. Ongoing maintenance is needed to support this network in the future.
- Current farm stewardship grants provide the opportunity to develop more public access in the countryside. Future grant or other programmes may continue to support this.

Guidelines

Climate Change

- Forestry and coppice planting should reflect any field patterns and the grain of the landscape. They should be sited and designed so that they integrate well with

the landscape, retain the open moorland character and do not sit as large unbroken blocks of planting.

Natural Features

- Regenerate suppressed heather through management programmes including reduction of stocking levels, control of bracken, phased cutting and burning.
- Manage semi-natural acidic grassland to enhance biological diversity including controlled light grazing.
- Cease further agricultural improvement including ploughing, reseeding, application of fertiliser, liming or herbicide treatment.
- Recreate heath or rough grassland on land which has been 'improved' to pasture to strengthen the continuity of semi-natural land cover. This may involve cultivation to expose peat soils, spreading heather cuttings with ripe seed from nearby moorland and initially excluding stock.
- Re-create and enhance wetland including flushes, small tarns and marshy hollows. This may include preventing drainage improvements and blocking existing drains to maintain high water levels, preventing overgrazing and poaching by stock, controlling scrub encroachment.
- Protect gills and becks from stock to encourage development of diverse ground flora, scattered trees and woodland.
- Protect rocky outcrops by preventing removal or disturbance and controlling scrub encroachment.
- Restore the matrices of hedgerows closer to plantations.
- Conserve and reinforce ancient woodland in valleys and field boundary trees at lower levels.
- Restore and reinforce existing grazed broadleaf and mixed woodlands by exclusion of livestock, natural regeneration, restocking of plantations.
- Ameliorate existing coniferous plantations including softening geometric outlines, introduction of open spaces and species diversification.
- Establish new medium scale mixed and broad-leaved plantations aligned to respect and enhance the topographic pattern of interlocking ridges and reduce the visual dominance of transmission lines and masts. Avoid planting on heath, species rich grassland and wetland.
- Plant new field boundary trees to replace maturing stock using indigenous species.

Cultural Features

- Restore and maintain dry stone walls and hedges enclosing improved farmland where they are a key feature.
- Strongly discourage the removal of hedges and stone walls and introduction of fences.

Development

- Avoid siting development on prominent edges of the plateau taking advantage of the natural containment offered by intermediate ridges and horizons.
- Resist cluttering of further communication masts or large scale wind turbines, particularly on valley rims.
- Ensure new development respects the local landscape character and vernacular.
- Reduce the impact of new farm buildings by careful siting and design, including choice of finishes and appropriate planting.
- Encourage the appropriate management of new farm development such as slurry and silage tanks to minimise their impact on local character.
- Avoid siting large scale wind energy, other vertical structures such as telecommunications masts, pylons and overhead transmission lines in open and prominent areas where it could degrade the rural character of the area and affect sensitive views.
- Retain the rural character of the M6 corridor by resisting large scale commercial development, and ensuring new motorway infrastructure such as information signs and necessary lighting is sited to minimise adverse effects on open parts of the landscape. Noise pollution should be mitigated against through careful selection of surface materials.

Access and Recreation

- Public rights of way should be well maintained and quiet recreational areas and facilities should be improved and developed to be compatible with the pastoral character of this sub type.
- Seek opportunities to enhance access to farmland through farm stewardship or other schemes.
- Promote and enhance existing recreation routes by improving waymarking, providing appropriate surfacing, gates and gaps and interpretation.

Forests

Location

This sub type is found in the north of the county at Kershope and Spadeadam Forests.

Key Characteristics

- Areas of high rolling or undulating moorland and plateau
- Large areas of coniferous planting
- Some open attractive areas on forest edge
- Extensive views towards distant hills and craggy scarps

Physical character

The geology is mainly Carboniferous sandstone and gritstone overlain by peat. The land is high rolling or undulating moorland and plateau. It rises from around 150m to 520m AOD.

Land cover and land use

The landscape is extensively planted with coniferous forest. Its character changes with the management cycles of clear felling and replanting. The forests are made up of large and extensive planting blocks with firebreaks and access roads. There is little variation in tree species and sitka spruce dominates. Within the forests open space is sparse and often limited to remnants of simple moorland that are found around the periphery of the forests.

Around the edge of the forest there are areas of farmland with a mixture of improved, semi improved and marshy pasture. Fields are large and regular in shape. Where the fields are bound by hedges there is a strong matrix field pattern. Some hedges have been replaced by wire fences. The field pattern and hedges tend to weaken closer to the plantations.

Settlement is sparse. Isolated farmsteads and dwellings are found at the edges of the forests. Part of Spadeadam Forest is used for military purposes and its associated roads, security fences, buildings and overhead power lines influence the landscape character.

Ecology

Extensive coniferous plantation dominates this landscape and provides nest sites for goshawk and a reserve for red squirrels. Within and around the edges of these plantations there are large areas of blanket bog, rush pasture, purple moor-grass and small raised bogs. These are particularly extensive in Spadeadam Forest. Isolated areas of hay meadow and wet woodland are present in the upper reaches of the River Irthing. Species-rich springs and flushes are present where there is a calcareous influence to the irrigating waters and support species such as small white orchid.

Historic and cultural character

The landscape remains largely unenclosed and the settlement pattern is largely dispersed and post-medieval in origin. A number of the farms originated as bastles in the late sixteenth and early seventeenth centuries. Prehistoric sites including burial cairns are relatively common. Other important potential heritage sites include 20th century military sites such as the Blue Streak missile testing range at Spadeadam. In the 1950's Spadeadam was the test location for the "Blue Streak" missile project, the equivalent to the American Atlas missile. It was suddenly cancelled in 1960. Britain attempted to salvage the project by utilising the "Blue Streak" technology to enter the Space Race and form the first stage of a satellite launcher.

Perceptual character

The forests have a feeling of remoteness, wildness, tranquility and space at the moorland edges. Changes in the weather can accentuate these feelings. At the forest edges horizons are wide and the scale vast with extensive views towards distant hills and craggy scarps. Within the forests views are limited but the continuous tree cover provides a feeling of remoteness.

Sensitive characteristics or features

The peripheral areas of blanket bog, heathland and moorland provide contrast to the large scale and uniform plantations and are sensitive to changes in land management and additional forestry plantations. The simple dispersed settlement pattern is sensitive to expansion. The expansive views and sense of openness from forest edges to distant hills is sensitive to enclosure or interruption from significant infrastructure development. The remote feeling in forests and along edges arising from a lack of development is sensitive to intensification of land use.

Vision

The forest landscape, adjacent moorland and farming areas will be enhanced. Recreation within these areas will be increased where opportunities present themselves and, there will be an increase in nature conservation interest of upland mire habitats both inside and outside the forests. The detrimental visual impact of remaining military areas will be reduced through careful restoration or redevelopment. The visual containment of the forests will provide limited opportunity for some wind energy development which will be combined with moorland reinstatement and complementary forest management. Natural features, field boundary patterns and traditional farm buildings will all be enhanced to further improve the characteristics of the farming landscape.

Changes in the Landscape

Over the next 10 – 20 years this landscape could be subject to the following changes or issues:

Climate Change

- Climate change mitigation could see a shift to short rotation forestry.
- Areas of active blanket bog and peat provide the best carbon sinks after woodland and can assist with carbon sequestration.

Management Practices

- Within publicly owned forest, Forest Design Plans are reducing the impact of cycles of clear felling, creating open spaces and restoration of raised mires and seeking to introduce native species, particularly on Plantations with Ancient Woodlands (PAWS). Improvements are taking place within privately owned woods as management plans are developed.
- There could be a possible threat to upland mires through forestry expansion or agricultural improvement.
- Hedges are being replaced by wire fences as farming practices change.

Development

- There is interest in wind energy development in the area due to its exposure and relative remoteness.
- The future use of military areas at Spadeadam may need careful consideration to limit adverse effects on landscape character.

Access and Recreation

- Public rights of way and areas of open access land provide a network of routes that enable quiet appreciation and enjoyment of the countryside. Ongoing maintenance is needed to support this network in the future.

Guidelines

Climate Change

- Forestry planting should reflect any field patterns and the grain of the landscape. They should be sited and designed so that they integrate well with the landscape and retain the open moorland character.
- Projects should be encouraged that seek to improve the condition of areas of peat to optimise their carbon capture potential.

Natural Features

- Increase planting of deciduous trees as feature trees, within hedgerows, along water courses and in tree groups to act as a foil to the dominant coniferous woodland in the background.
- Create linked networks of vegetation to enhance nature conservation value and their use as ecological corridors and links with the adjacent forest area.
- Adopt sensitive felling cycles to reduce the impact of clear felling and re-shape forests to enhance topographic variations of scarps, plateaus and lower foothills and vistas of crags and tors.
- Protect and enhance natural areas and mires peripheral to the forested areas and natural crags or tors from masking by forests.
- Remove conifers from areas of high nature conservation interest such as blanket mire.
- Extend the forestry management policies to encourage recreation.
- Relieve the overwhelming green of the predominantly sitka spruce stands with more open areas, change in species, colour contrast, inclusion of deciduous species in appropriate locations and introduction of focal points and features of interest including suitable trees for long term retention.
- Use of broadleaf species along the river valley sides to give definition to the water course rather than disguise it and encourage the development of riverside habitats.

Cultural Features

- In fields adjacent to forests and woodland, enhance the pattern of hedgerows with additional planting and supplementary planting of poor hedgerows.
- Forestry activities should avoid damage to upstanding archaeological remains, and clear tree growth away from them when opportunities arise.

Development

- Wind energy infrastructure should be sited and designed to reduce any adverse landscape and visual effects, particularly to the dispersed population.
- Create landscape buffer zones between the military areas and the surrounding forest landscape.
- Encourage partnership arrangements between Forest Enterprise, MOD, Local Authorities and conservation bodies to develop and monitor long term landscape and nature conservation plans.

Access and Recreation

- Public rights of way and access to open access land should be well maintained to allow quiet enjoyment and appreciation of the areas.
- Establish points of orientation for recreation purposes and enhance the networks of footpath, bridleway and cycleway links.
- Seek opportunities to enhance access to farmland through farm stewardship or other schemes.

Sub type 9d

Ridges

Location

This sub type is found in two parts of the county. In the west it is found at Dean Moor and High Park, north of Cleator Moor. In the south it is found to the north west of Ulverston and north east of Askam in Furness.

Key Characteristics

- Distinct ridges
- Extensive areas of true heathland moorland
- Improved pasture with distinctive stone walls
- Woodland and small belts of trees form prominent features

Physical character

In the west the geology is a mixture of coal measure and sandstone, and in the south there is a mixture of Silurian and Igneous rocks. Distinct ridges rise to around 300m AOD at the highest point. The ridges are steep sided and include a number of rounded hill summits that vary in height. The ridges have a strong topographical and geological link with adjacent higher low fell and fringe areas.

Land cover and land use

The landscape is a mixture of true heather moorland and a more managed farmed landscape. Unmanaged heather cover or bracken on higher ground gives way to pasture on the lower slopes. The improved pasture can be found in distinct rectangular fields bounded by strong stone walls. These form a prominent local feature against the open and unimproved moorland.

Tree cover is sparse and limited to a few remnants of old woodland and small belts of trees. These form strong local features in the open moorland. Streams, becks and tarns form wetland features.

Settlement is scarce. Isolated farmsteads and hamlets are scattered along the sides of the ridges. The landscape has been shaped by man in several ways and features linked to including open cast mining (now restored), quarrying, reservoirs and energy infrastructure intersperse the open moorland and farmed pasture. These introduce a significant man made character to parts of the landscape. In particular the large scale wind turbines and pylons form prominent vertical features.

Ecology

Areas of moorland are present on the higher sections of these ridges, with upland heathland dominant on Kirkby Moor and rush pasture and purple moor-grass dominant on High Park. The lower slopes support rush pastures and swamp, together with improved grassland. These support a range of invertebrates and birds including Curlew, Skylark, Plover and Lapwing. Steeply incised valleys support small upland oak woodlands. Kirkby Moor provides a southwest outpost for red grouse in Cumbria.

Historic and cultural character

Settlement is sparse but in the lower areas is generally nucleated whereas higher up it is dispersed and later in origin. Lower down the fields are irregular and often small, but on higher land they are generally regular and a product of late enclosure. Unenclosed moorland is still evident in the south. The landscape is strongly affected by large-scale quarrying with the quarries at Bannishead being a particularly distinctive feature. Other characteristic archaeological remains are prehistoric settlements and burial cairns.

Perceptual character

These are generally open, large scale landscapes. The unenclosed moorland gives a feeling of wildness. Views are often wide and expansive and uninterrupted and striking views of the Lakeland Fells and Duddon Estuary and Morecambe Bay provide drama and reinforce the sense of wildness. Changes in weather conditions can accentuate the sense of wildness.

Sensitive characteristics or features

The open and distinct ridges and heather moorland and wide and expansive uninterrupted views to sea and the Lakeland Fells provide a sense of wildness that are sensitive to changes in land management and significant infrastructure development.

Vision

This landscape will be conserved and enhanced.

Development will be carefully controlled in order to ensure ridges aren't cluttered or dominated by new development. The fragmenting pattern of rough moorland will be repaired, significantly enriching the wildlife and visual interest of these areas. The remnant heather and rough pasture will be improved and extended. Existing features will be enhanced and new features will be created such as tarns, wetlands and small woods creating dramatic focal features in a predominantly open landscape. The pattern of stone walls, hedges and woodlands on lower slopes will be conserved and maintained.

Changes in the Landscape

Over the next 10 – 20 years this landscape could be subject to the following changes or issues:

Management Practices

- Surface scarring could occur from quarrying and any move back towards open cast coal mining.
- Much of the original moorland has been lost and remnant patches of heather continue to decline under agricultural pressures of overgrazing and conversion to pasture.

- Marginal land could be abandoned by farmers giving the potential for uplands to revert back to moorland.
- There has been a continued replacement of hedges by fences in the areas that are more intensively farmed.
- Changes to drainage methods and an increase in fertiliser can affect wetland areas.
- Overgrazing and under grazing can reduce and fragment areas of unimproved grassland, heathland and wetlands.

Development

- The Government's commitment to an increase in renewable energy could see increased interest in large scale wind energy schemes. The cumulative effects of schemes could have a significant adverse effect on the character of the area.
- As energy markets change there could be new interest in open cast coal mining.

Access and Recreation

- Public rights of way provide a network of routes that enable quiet appreciation and enjoyment of the countryside. Ongoing maintenance is needed to support this network in the future.
- Current farm stewardship grants provide the opportunity to develop more public access in the countryside. Future grant or other programmes may continue to support this.

Guidelines

Natural Features

- Regenerate suppressed heather on moorland tops through management programmes including reduction in stocking levels, control of bracken, phased cutting and burning.
- Regenerate rough pasture on land which has been 'improved' through controlled light grazing and control of bracken and rushes.
- Restrict further agricultural improvement including ploughing, re-seeding, application of fertiliser, liming or herbicide treatment.
- Recreate heather moorland on land which has been 'improved' to pasture to provide continuity of heather cover. This may involve cultivation to expose peat soils, spreading heather cuttings with ripe seed from a local source and excluding stock until heather establishes.

- Enhance and/or recreate wetland including flushes, small tarns and bog pools. This may include preventing drainage improvements and blocking existing drains to maintain high water levels preventing overgrazing and poaching by stock.
- Protect gills and becks from stock to encourage development of diverse ground flora, scattered trees and woodland.
- Enhance existing reservoirs to soften hard engineering details and integrate with adjacent moorland.
- Restore and reinforce semi-natural moorland top and gill woodlands by exclusion of livestock, natural regeneration, restocking and appropriate management.
- Undertake small scale planting concentrated around farmhouses.
- Seek opportunities to enhance access to farmland through farm stewardship or other schemes.
- Promote and enhance existing recreation routes by improving waymarking, providing appropriate surfacing, gates and gaps and interpretation.

Cultural Features

- Manage stonewalls and hedges in a traditional way.
- Strongly discourage the introduction of fences as replacement boundaries or to sub-divide large fields. Remove fences to restore large-scale allotment rough pastures

Development

- Minimise the impact of development by careful siting and design and seek environmental gains such as heather and moorland restoration.
- Avoid siting large scale wind energy, other vertical structures such as telecommunications masts, pylons and overhead transmission lines in open and prominent areas where it could degrade the open and expansive character.
- Carefully manage the expansion of major developments such as quarrying, mining, communication masts, large scale wind energy development and energy transmission lines.
- Minimise the impact of surface scarring from quarrying and opencast mining where possible through careful screening or siting.
- Ensure any re-establishment of opencast coal sites is managed and maintained in relation to local character.

Access and Recreation

- Public rights of way should be well maintained and quiet recreational areas and facilities should be improved and developed to be compatible with the pastoral character of this sub type.