Type 7

Drumlins

This is a working landscape defined by its pronounced patterns of drumlins and regular field patterns. The subtle differences in landform scale have contributed to defining these sub-types.

Frameworks of hedges and occasional woodland support this bare rolling landscape. The predominant land cover is pasture and improved grassland. Many of the villages and hamlets in this area retain a strong historic structure and grain responding to the shape of the landscape.

Sub types:

- 7a Low Drumlins
- 7b Drumlin Field
- 7c Sandy Knolls and Ridges

Sub type 7a

Low Drumlins

Location

This sub type is found in two small areas; south from Barrow to Rampside and between Milnthorpe and Farleton Knott.

Key Characteristics

- Tracts of low drumlins
- Broad rounded tops, often with steep sides
- Strong agricultural pattern of medium to large improved pasture fields
- Strong matrix of hedges with minimal tree cover
- Intersected by small streams and watercourses
- Scattered farmhouses with modern outbuildings
- Expanding historic stone villages, with peripheral modern housing, scattered farmhouses

Physical character

The drumlins lie on Carboniferous rocks and were formed in the Quaternary period. The tracts of low drumlins form oval whaleback hills formed by glacial till. These are usually around 10m - 25m high and are often steep sided with broad rounded tops. They have a parallel alignment which gives a distinctive grain to the land. The drumlin features are often isolated and are less distinct and contained than the adjacent Drumlin Fields sub type.

Land cover and land use

The drumlins are farmed and have a strong agricultural pattern. Fields are usually medium to large sized and regular in shape. They are predominantly improved pasture, but there are occasional arable fields.

The fields are usually bounded by managed low cut thorn hedges, but stone walls can also be found. Field boundaries reinforce the distinctive shape of the drumlins as they rise up and down the sides and skirt along the edges. Tree and shrub cover is notably absent with only occasional hedgerow trees particularly in sheltered valleys, copses around buildings and streamside trees.

Streams intersect the landscape and areas of wetland can be found in the hollows and dips between the drumlins.

Around Barrow, fields are more irregular in shape and boundary hedgerows are often planted on small stone banks. Scattered farmhouses are reached by a network of winding lanes and tracks.

Around Milnthorpe the agricultural drumlins are intersected by expanding villages with historic stone built centres surrounded by modern housing. Other modern developments include isolated industrial buildings, overhead power lines, main roads, motorway and a railway lines and weaken the agricultural rural character. The hilly topography and hedges contain some of this development and screen long distance views.

Ecology

This is a landscape of improved pasture with species-rich hedgerows and occasional small woodlands. The Lancaster Canal runs through Holme and supports a range of aquatic plants, whilst otters are present in the small rivers.

Historic and cultural character

The settlement pattern is mixed with traditional nucleated and discrete settlements. The field pattern is variable reflecting former common arable and ancient enclosures. There are a number of traditional market centres such as Burton-in-Kendal and Milnthorpe. The evidence of the former iron industry is distinctive around

Barrow and south of Kendal one of the most significant features is the northern end of the Lancaster Canal.

Perceptual character

This a pleasant working landscape distinguished by its pronounced pattern of drumlins and regular field pattern. Pasture fields produce a dynamic pattern of colour and texture changing with the seasons and are contained within a strong patchwork framework of hedges. The noise of main roads, the motorway and railway sometimes fragments the pastoral scene. The glimpsed views of neighbouring limestone hills and the coast provide an important connection to adjacent landscapes and contrast with the intimate and enclosed feel of the landscape.

Sensitive characteristics or features

The hedges and walls that form a patchwork over the low drumlins are sensitive to changes in land management. The strongly orientated, small scale and distinctive drumlin forms are sensitive to development that would affect their overall form and appearance in the landscape. Rural lanes that wind along the lower reaches of the drumlins are sensitive to highway improvements for safety or to support new development.

Vision

This is a well composed landscape which will be conserved and enhanced. The distinctive field pattern will be maintained along with the conservation and restoration of natural features such as hedges and streams. The unique topography within this type will be maintained through strict controls regarding development and any other potentially detrimental activities. The intrusion of new farm buildings and other development will be minimised through careful siting that complements the grain and form of the drumlins, is of an appropriate scale and high quality design. The pattern of small woods and hedgerow trees that complement the scale, relief and field patterning of the drumlins will be conserved and extended where possible. Recreation routes will also be strengthened and better maintained.

Changes in the Landscape

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

Climate Change

- There could be increased interest in the planting of energy crops to support renewable energy generation. Energy crops could include miscanthus, short rotation coppice (usually willow) or short rotation forestry of fast growing tree species to provide biomass for electricity production and heat. As arable and woodland planting is very limited in the landscape sub type this could change the character significantly.

Management Practices

- Agricultural change towards intensively managed grassland and silage production.
- The introduction of newer, larger farm buildings could impact upon character. Increased interest in the potential for anaerobic digestion on farms could result in further changes to farm buildings in the future which may affect traditional characteristics.
- There are localised examples of neglect of hedges and walls which need better management as they are a key landscape feature.

Development

- There is the continued need for additional housing, commercial and recreational development related to towns and larger villages which could affect the rural qualities.
- Village expansion, barn conversions, and sporadic development that don't reflect the local vernacular or traditional siting of development at the foot of the drumlins could weaken local identity.
- There could be an increased interest in large scale onshore wind energy development in parts of the county where these landscape sub types occur. Upgrading the electricity grid will take place in the next decade and its effect on landscape character needs to be considered.
- Other Infrastructure developments including roads, motorway and railway improvements cutting across the grain of landscape and introducing vertical structures that dominate the drumlin characteristics.
- Development sited away from settlements could introduce buildings that are inappropriate in location, siting, and scale.

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.
- Farm diversification to support recreational and tourism businesses could weaken the distinctive character of the landscape if not carried out sensitively.

Guidelines

Climate Change

- Encourage biomass planting in hollows and between the lower more open drumlins to help retain the distinctive form and pasture land cover of the drumlins.

Natural Features

- Plant small pockets of indigenous woodland within hollows and woodland belts between the lower more open drumlin swarms.
- Establish new hedgerow trees using indigenous species or tagging selected saplings to replace maturing stock.
- Discourage large scale planting that would obscure or swamp the pattern of drumlins.
- Protect and enhance tarns and wetlands through carefully controlling drainage schemes to safeguard water quality and levels and regenerating water margin vegetation by preventing overgrazing and poaching by stock and controlling scrub encroachment.
- Create new ponds, tarns and wetlands in hollows and by streams.
- Maximise floral diversity along road verges by adopting sensitive cutting cycles and restricting use of herbicides.

Cultural Features

- Conserve and maintain hedgerows in a traditional way where possible with hand laying and trimming.
- Discourage boundary removal and field enlargement.
- Maintain dry stone walls in the traditional manner.
- Restore dry stone walls and neglected hedgerows; the latter involving replanting of gaps and coppicing of overgrown plants.
- Conserve and enhance features such as remnant medieval 'town fields' and disused iron ore mines in Furness by positive management and discouraging damaging agricultural and other reclamation schemes.
- Conserve and enhance historic routes such as the Lancaster Canal and encourage public use by management of trees and scrub, carrying out structural repairs to bridges, walls etc. (with archaeological advice) and protection from stock.

Development

- Ensure that all developments are of high quality and well related to the distinctive grain and scale of this landscape. Avoid siting development on prominent hill tops or cutting across slopes, particularly with reference to tall structures such as pylons and large scale wind turbines, and take advantage of natural containment by landform and trees.
- 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.
- Reduce the impact of new farm buildings by careful siting, breaking down mass, choice of sympathetic colours and non-reflective finishes and screen planting. Ensure any diversification from farming use does not disrupt the strong held pattern.
- Conserve and protect historic villages by ensuring new housing development respects their scale, traditional form and vernacular styles and does not overcrowd narrow lanes or infill open spaces such as orchards and gardens integral to the character. Encourage sensitive environmental improvements to village greens, ponds, tree plantings etc.

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.

Sub type 7b

Drumlin Field

Location

This sub type is found in a band running from Cowan Head south east past Kendal to near Kirkby Lonsdale, and in a band running from Lindal in Furness south to the coast around Roosebeck.

Key Characteristics

- Tracts of high drumlins
- Rounded tops with steep sides
- Distinct landform grain
- Hedges and stone walls form strong boundaries
- Streams and wet hollows are found in the valleys and dips between the drumlins
- Farms and development often nestle in intersecting valleys
- Narrow lanes with tall hedges and steep banks criss cross through the drumlins
- Drumlins are cut through by the M6 motorway, railways and power lines

Physical character

The drumlins lie on Carboniferous rocks and were formed in the Quaternary period. The tracts of rolling high drumlins form oval whaleback hills moulded from boulder clay by glacial processes. They range from 50 - 125m high, have broad rounded tops and are frequently steep-sided.

The drumlins provide evidence of glaciation. During the Pleistocene period these areas were glaciated several times and till (boulder clay) was deposited. The present topography resulted from the last glaciation when the ice sheet deposited the 'Lake District Drift' and moulded it into a striking drumlin pattern. The parallel alignment of these hills gives the landform a distinctive, uniform grain. The orientation of the drumlins is NW/SW around Kendal and NNW/SSE in Furness.

Land cover and land use

The drumlins are mainly covered in pastoral fields, usually divided by thick well managed hedges. Limestone walls can be found bounding fields in higher parts and around villages. The strong patchwork of fields forms a distinctive pattern that crosses up and down the drumlins.

Small broadleaved woods, orchards and hedgerow trees are abundant around Kendal but, perhaps due to exposure, these rarely occur in Furness where tree cover is restricted to sheltered valleys of farms and villages. Brooks and streams wind through the hills and occasional tarns occur in the hollows between them.

Many of the villages retain a strong historic structure responding to the shape of the landform either strongly linear along the side of hills or nucleated within hollows with houses grouped around greens or tarns. Modern housing expansion has weakened this intimate relationship and the vernacular identity of the villages.

The drumlin fields are crossed by power lines, main roads, railways and the M6 motorway. The Lancaster Canal, south of Kendal, is partly infilled but still retains its towpaths, bridges, tunnels and planting in many parts.

There are some urban fringe characteristics in the parts of the landscape closest to Barrow and Kendal which have weakened the distinctive pastoral drumlin and village scene.

Ecology

This is a landscape of improved pasture with species-rich hedgerows and occasional small woods. Small areas of rush pasture are occasionally present in hollows. The northern section of the Lancaster Canal supports a range of aquatic plants, whilst otters are present in small rivers.

Historic and cultural character

The landscape consisting of nestling farms within the drumlins is interesting and often painted by artists such as; William Collingwood, Arthur Tucker and Hubert Coutts. Particular features are kettle tarns, which were formed in basins by the melting ice age.

The settlement pattern is largely dispersed and the field pattern regular with a mix of field sizes reflecting former common arable and ancient enclosures. However, these are distinguished by the recent removal of many hedged boundaries. The traditional buildings are constructed of limestone. The most distinctive archaeological feature is the evidence from industrial activity such as paper making and gunpowder manufacture.

Perceptual character

This is a comfortable working landscape dominated by sleek, well managed pasture fields. Seasonal farming practices bring a dynamic nature to the area with summer mowing creating a bright patchwork of greens and yellows. The combination of drumlin landforms overlain by a geometric net of fields gives this landscape a strong identity. The hedgerows often seem to march over the drumlins, their curvature accentuating the relief of the hills. The landscape is punctuated by hedgerow trees, farms, woods, tarns and villages. The lack of tree cover in Furness creates a bare rolling landscape. A journey through it reveals a series of contrasts from enclosed sheltered hollows to exposed open hilltops affording long views. In some cases the views open across valleys where farmland and towns, such as Kendal, are framed in the landscape. A sense of intrigue and surprise can be created by the hilly winding lanes.

Sensitive characteristics or features

The distinctive grain and interlocking appearance of the drumlin forms are sensitive to development that would change their appearance in the landscape. The strong matrix of hedges and walls that criss cross and 'rollercoaster' up and down the drumlins are sensitive to changes in land management. The rivers and watercourses that intersect the drumlins reinforce a sense of tranquility and are sensitive to farm intensification and changes to land management. Rural lanes that wind along the lower reaches of the drumlins are sensitive to highway improvements for safety or to support new development. The traditional vernacular village forms reflect the distinctive shape of the drumlins and are sensitive to village expansion. Open and expansive views to Morecambe Bay, the Lakeland Fells and Yorkshire Dales are sensitive to large scale infrastructure development.

Vision

This well composed landscape will be conserved and enhanced to retain its distinctive characteristics. Its unique topography will be maintained and enhanced as a striking asset. The intrusion of new farm buildings will be minimised, field patterns maintained and strengthened and natural features restored through careful conservation. Conservation and restoration of the small woods and hedgerow trees will complement the scale, relief and field patterning of the drumlins. Any small-scale development will be sited and aligned to complement the grain and form of the drumlins and a good network of paths and recreational routes will exist.

Changes in the Landscape

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

Climate Change

- There could be increased interest in the planting of energy crops to support renewable energy generation. Energy crops could include miscanthus, short rotation coppice (usually willow) or short rotation forestry of fast growing tree species to provide biomass for electricity production and heat. As arable and woodland planting is very limited in the landscape sub type this could change the character significantly.
- There could be an increase in localised flooding linked to increased rainfall and storm events which may need to be managed in the future.

Management Practices

- Agricultural change towards intensively managed grassland could reduce biodiversity and support more silage production.
- There continue to be localised examples of neglected hedges and walls.

Development

- Interest in residential, commercial and recreation development is likely to continue close to major towns and villages.
- Village expansion, barn conversions, and sporadic development that don't reflect the local vernacular or traditional siting of development at the foot of the drumlins could weaken local identity.
- Infrastructure developments including large scale wind energy developments, pylons, roads, motorway and railway improvements could cut across the grain of landscape and introduce vertical structures that dominate the drumlin characteristics.
- Development sited away from settlements could introduce buildings that are inappropriate in location, siting, and scale.
- Farm diversification could result in more recreational uses such as golf courses.
- 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 affects 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.
- Visitor numbers could increase in areas adjacent to the Lake District and Yorkshire Dales National Parks and from programmes encouraging people to access the countryside around where they live.

Guidelines

Climate Change

- Encourage biomass planting in hollows and between the lower more open drumlins to help retain the distinctive form and pasture land cover of the drumlins.
- Encourage appropriate flood risk management measures to reflect the local character.

Natural Features

- Plant small pockets of indigenous woodland within hollows or on prominent hilltops and woodland belts between the lower more open drumlins.
- Manage existing woods by selective felling, natural regeneration, restocking and exclusion of stock.
- Establish new hedgerow trees using indigenous species or tagging selected saplings to replace maturing stock.
- Resist large scale planting that would obscure or swamp the pattern of drumlins.
- Protect and enhance tarns and wetlands through carefully controlling drainage schemes to safeguard water quality and levels and regenerating water margin vegetation by preventing overgrazing and poaching by stock and controlling scrub encroachment.
- Create new ponds, tarns and wetlands in hollows and by streams.
- Maximise floral diversity along road verges by adopting sensitive cutting cycles and restricting use of herbicides.

Cultural Features

- Conserve and maintain hedgerows in a traditional way where possible with hand laying and trimming.
- Discourage boundary removal and field enlargement.
- Maintain dry stone walls in the traditional manner.
- Restore dry stone walls and neglected hedgerows; the latter involving replanting of gaps and coppicing of overgrown plants.
- Conserve and enhance features such as remnant medieval 'town fields' and disused iron ore mines in Furness by positive management and discouraging damaging agricultural and other reclamation schemes.
- Conserve and enhance historic routes such as the Lancaster Canal and encourage public use by management of trees and scrub, carrying out structural repairs to bridges, walls etc. (with archaeological advice) and protection from stock.

Development

- Ensure that all developments are of high quality and well related to the distinctive grain and scale of this landscape. Avoid prominent hill tops or cutting across slopes, particularly with reference to tall structures such as pylons and large scale wind turbines and, take advantage of natural containment by landform and trees.
- Reduce the impact of new farm buildings by careful siting, breaking down mass, choice of sympathetic colours and non-reflective finishes and screen planting. Ensure any diversification from farming use does not disrupt the strong held pattern.
- Conserve and protect historic villages by ensuring new housing development respects their scale, traditional form and vernacular styles and does not overcrowd narrow lanes or infill open spaces such as orchards and gardens integral to the character. Encourage sensitive environmental improvements to village greens, ponds, tree plantings etc.
- Avoid siting large scale wind energy, other vertical structures such as telecommunications masts, pylons and overhead transmission lines in open and prominent areas where they could degrade the rural character of the area.
- 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.
- Promote and enhance existing recreation routes by improving waymarking, appropriate surfacing, gates and gaps and interpretation.
- Encourage the development of footpath, bridleway and cycleway networks where appropriate combined with additional hedgerow and tree planting to provide interest.
- Seek opportunities to enhance access to farmland through farm stewardship or other schemes.

Sub type 7c

Sandy Knolls and Ridges

Location

This sub type is found in a small swathe running south from Brampton towards Castle Carrock.

Key Characteristics

- Regular knolls and ridges
- The land cover is generally pasture
- Field patterns are irregular
- Significant amounts of woodland cover in the form of hanging woods, coniferous plantations and semi natural woods

Physical character

The prominent ridges and knolls are formed from glacial alluvium and overlie Permo Triassic sandstone rocks. A distinctive feature in this sub type is a 'kame' ridge formed of gravel from glacial meltwater which stretches for 4 km to the east of Brampton. The landscape is similar to Rolling Lowlands (sub-type 5c) but has greater variation in topography due to the knoll and ridge features.

Land cover and land use

The predominant land cover is pasture with irregular field patterns. Fields are usually bounded by hedges, with hedgerow trees. There is significant woodland cover throughout the landscape which varies from coniferous plantations, semi-natural woodlands, parkland, such as that at Naworth, and dramatic hanging woods along the River Gelt.

Buildings are generally in a vernacular tradition and limestone built outside of the Georgian town of Brampton.

Pylons, the A69 and the railway line cut across the area. These are sometimes discrete features hidden by changes in topography and woodland cover.

Ecology

This is a landscape of improved pasture with species-rich hedgerows and frequent upland oak woodland, particularly along the River Gelt. Otters are present along the River Gelt and other rivers.

Historic and cultural character

The area has been a popular location for a variety of artists such as Ben Nicholson, Winifred Nicholson, George Howard, Christopher Wood and Donald Wilkinson.

The settlement pattern consists of small nucleations surrounded by recently modified traditional field systems containing some fossilised strips. There is some planned enclosure south of Brampton. The medieval castle of Naworth lies close to Brampton and dates back to the early 14th century, although there is evidence of an earlier fortification in 1270. There is some parkland associated with major estate centres such as Naworth Castle. The principal archaeological features are the route of the Roman road known as the Stanegate, a variety of medieval castles and The Mote (Brampton) and Written Rack of Celt, Torte (Naworth).

Perceptual character

This is a pleasant farmed landscape. It is a generally small to medium scale, enclosed landscape which opens out on the edges. The combination of knolls and ridges with mature woodland and pasture creates an enclosed parkland like appearance. Most views are framed by woodland or topography. There are some longer vistas northwards from the ridges near Brampton.

Sensitive characteristics or features

Semi natural woodlands, hanging woodlands and parkland are sensitive to changes in land management. Traditional vernacular villages are sensitive to unsympathetic expansion.

Vision

This varied well-composed landscape will be conserved and enhanced. Hedges and other boundary features, small and medium scale woodlands and individual trees will be managed and restored with the help of farmers and landowners. Large-scale changes in agricultural management or major increases in woodland will be discouraged. Small-scale development will be carefully sited and landscaped to exploit the natural potential for visual containment. Residential development, mineral extraction and recreation development will be carefully controlled.

Changes in the Landscape

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

Management Practices

- Symptoms of agricultural change include neglect or removal of some hedges.
- Continued quarrying is likely in this area.

Development

- Residential development and barn conversions within existing villages.

Recreation

- Visitor numbers could increase due to its proximity to the North Pennines and programmes encouraging people to access the countryside around where they live. Some of the woodland areas are currently managed for conservation with public access but otherwise there are few facilities for recreation.

Guidelines

Natural Features

- Manage existing woods by appropriate cutting, natural regeneration, restocking and exclusion of stock.
- Institute programmes of replacement planting of hedgerow trees using indigenous species or tagging selected saplings.
- Encourage the creation of small to medium size new native woodlands.
- Ensure the natural topography of the ridges and knolls is maintained and not degraded.

Cultural Features

- Encourage traditional management of hedgerows and maintenance of the existing pattern of field boundaries.
- Encourage the restoration of gappy hedgerows and the replacement of fences with hedges.
- Encourage the restoration and conservation of dry stone walls and other boundary features.
- Conserve historic features in their landscape setting and encourage interpretation/visitor management.
- Consider the potential for interpretation, controlled access and additional facilities in consultation with English Heritage.

Development

- Conserve and protect historic villages and hamlets and ensure all new development reflects the scale and character of the existing settlement.
- Encourage additional planting to soften and screen existing large scale or eyesore developments.
- Ensure mineral extraction is carried out in a manner that does minimal damage to distinctive landscape features.

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.
- Manage interest for both formal and informal recreation by encouraging access to areas able to sustain the impact without detriment.
- Encourage the development of footpath, bridleway and cycleway networks where appropriate combined with additional hedgerow and tree planting to provide interest.