# 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 speciesrich 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.