# Sub type 5e Drained Mosses

## Location

This sub type is found around Bolton Fell to the east of Carlisle.

## **Key Characteristics**

- Mainly flat open landscape
- Extensive areas of lowland raised bog
- Distinctive geometric field patterns
- Low ridges with linear woodland planting
- Mossy fields, sparse hedges and relict woodlands
- Areas of peat extraction

## Physical character

Triassic sandstone is overlain by fluvio-glacial deposits. Peat has accumulated in low lying areas developing a raised dome. It is similar to the coastal mosses, but found further inland.

## Land cover and land use

This is a mainly flat, open landscape of drained mossy fields bounded by sparse hedges and relict woodlands. There are significant areas of lowland raised bog and fen with some active peat extraction.

Between the areas of raised bog a series of low ridges have been planted with avenues and shelterbelts that bound large scale pasture fields and create an unusual grid pattern in the landscape. Drainage ditches and roads tend to be straight.

The area is sparsely populated with few settlements, dispersed farmsteads and hamlets. This is an unusual, if simple landscape with some incongruous features linked to industrial yards, buildings, pylons and the peat extraction.

# Ecology

This landscape is dominated by two extensive raised mires. Whilst Bolton Fell has been subject to extensive peat extraction the centre of the mire still retains characteristic raised mire vegetation with abundant Sphagnum mosses and species like bog rosemary and cranberry. Walton Moss supports areas of raised mire vegetation, together with areas of wet heath and birch woodland. There are extensive areas of rush and purple moor-grass on drained mossland around both mires.

## Historic and cultural character

The drained mosses may have some potential for studying past landscapes through analysis of plant remains in preserved peat. However, it is likely that survival or remains would be variable across the mosses. They also contain evidence of former peat extraction. There are surviving areas of unenclosed low fell and moss.

## Perceptual character

This is a large scale, mainly open landscape. The changes in land cover from raised bog, to pasture and woodland provide variety and support wildlife interest. There are open views, particularly southwards from the low ridges. This is a peaceful landscape with a feeling of remoteness due to the lack of settlement. The feeling of remoteness can increase with seasonal and weather change.

## Sensitive characteristics or features

The distinctive geometric field patterns reinforced by woodland planting are sensitive to changes in land management. The relict woodlands, raised mire, bog and fen areas are sensitive ecological areas that could be affected by changes to drainage and other land management. The lack of settlements and openness of the mosses provides a sense of remoteness and tranquility that is sensitive to land management changes and medium to large scale development.

# Vision

#### The raised bog will be managed and drained and worked mossland will be restored. The

potential to recreate a more natural landscape and increase wildlife interest will be encouraged through the restoration of the worked mosses. An active programme will be embarked upon to plant and improve maintain the distinctive field patterns and the management of hedges, woodland and tree belts. Unsympathetic buildings and structures found around the periphery will be screened to enhance this landscape.

## Changes in the Landscape

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

#### Climate Change

• Raised bog has a high carbon sequestration potential. Good condition bog can help mitigate against adverse effects of climate change. Management practices might need to change to improve the condition of bog and enhance its carbon sequestration potential.

#### **Management Practices**

- Continued peat extraction can threaten the landscape and nature conservation interest and carbon capture potential of the area.
- Agricultural improvements can lead to the neglect of existing landscape features.

#### Development

 Pylons can be found in the area, and there is interest in large scale wind energy development in the area. This could lead to dominant man made features and create visual clutter in the simple landscape.

## Guidelines

#### Climate Change

- Restore drained mossland back to wetland. This may include 'blocking' of drainage systems, restricting grazing, and removal of invasive scrub and woodland.
- Manage and enhance raised bog through appropriate management including lowering stocking levels, ditch blocking and reviewing any burning practices.

#### Natural Features

- Plant woodland clumps in association with groups of farm buildings.
- Plant additional small scale mixed woodlands to create all year interest.
- Undertake improved management and supplementary planting of tree clumps and belts.
- Encourage schemes for the sensitive management of the mosses and surrounding agricultural land including maintenance of a high water table, phased cutting of heather, preventing damage to moss growth by overgrazing and poaching, control of scrub encroachment, restricting liming, fertiliser herbicide and pesticide treatments.
- Consider the potential for interpretation, controlled access and additional facilities in consultation with Natural England.

#### **Cultural Features**

- Undertake additional planting of hedgerows along ditches, road sides and accesses to farms, to create new features in the landscape on a whole farm basis.
- Undertake supplementary planting and management of neglected hedgerows and traditional maintenance of all hedgerows.
- Maintain tree lines as key features.
- Plant a variety of indigenous species and sizes of trees within the hedgerows to create an enriched environment of natural appearance.

#### Development

- Protect the mosses from further commercial peat cutting and agree schemes to ensure worked areas revert to a natural condition.
- Ensure that any proposals within existing peat working areas are carefully sited and designed to retain the unspoilt open character of this landscape.
- Resist any infrastructure development that undermines the remote and peaceful character or significantly changes views to the Lakeland fells.