



Views About Management

Wildlife and Countryside Act 1981 Section 28(4) as inserted by
Schedule 9 to the Countryside and Rights of Way Act 2000

Natural England has a duty to inform the owners and occupiers of land within the **West Pennine Moors Site of Special Scientific Interest (SSSI)** of its views on how to manage the habitats and species of interest for nature conservation. This statement sets out our views on how the SSSI's special conservation interest can be conserved and enhanced.

Please be aware not all of the management principles outlined in this statement will be equally appropriate to all parts of the SSSI. There may also be other management activities, not outlined here, which could be beneficial to the conservation and enhancement of the features of interest.

Also be aware that this statement does not provide consent for any of the 'operations requiring Natural England's consent'. You need to have written consent from Natural England if you want to carry out any of those operations. Natural England welcomes discussion with owners, occupiers and users of the SSSI to ensure that the management of this site conserves and enhances the habitats and species of interest, and to ensure that all necessary prior consents are obtained.

Background

The West Pennine Moors SSSI has a wide range of upland habitats including large expanses of blanket bog interspersed with a mosaic of dry and wet upland heath, wet flushes, grasslands and clough woodlands. These habitats support significant populations of breeding birds and flowering plants. Many habitat, bird and plant features of interest rely on similar management but others have more specific requirements to keep them in good condition.

Blanket bog is a peatland habitat that is confined to cool, wet climates. Peat forms where certain plants decompose very slowly under waterlogged conditions. In ideal circumstances, the peat develops over large expanses of uplands, effectively 'blanketing' them. The wet, nutrient-poor growth conditions provided by peat means that the bogs and their associated pools support unique communities of specialised plants and animals. Upland heaths develop where thinner soils are nutrient-poor and acidic and are dominated by dwarf shrubs, especially heather. Rarer wet heath occurs on similar soils but in water-logged conditions, giving rise to a different community of plants including cross-leaved heath, bog asphodel and bog-mosses.

Within the blanket bog and upland heath areas, groundwater sometimes rises to the surface, giving rise to slowly seeping flushes and faster-flowing springs. Mosses, liverworts, sedges and rushes typically dominate upland flush vegetation. The open moorland habitats support a distinctive breeding bird community including many scarce and declining breeding species largely or completely confined to upland areas such as merlin, curlew, and twite. The mosaic of upland habitats described above should be maintained and managed to safeguard the diversity of the assemblage.

Clough woodlands are remnants of a more widely wooded landscape, surviving due to their inaccessibility on steep and often wet slopes. Oak, birch and rowan woodland is typical of upland cloughs, with an understorey of heath-like vegetation and a dense moss layer. Wet woodland, found in the clough bottoms and valleys, is usually dominated by alder and willow species and often supports important insects. Many woodland birds inhabiting the West Pennine Moors woodlands are scarce and/or rapidly declining species, such as cuckoo, tree pipit, wood warbler, spotted and pied flycatchers and willow tit. It is important to ensure that woodland management benefits these species in particular.

The West Pennine Moors SSSI also consists of ground lying below the moorland line, some of which is enclosed in-by farmland. Fen meadows and rush pastures form in a similar way to

upland flushes, where the resulting habitats depend on the nature of the groundwater surfacing in the area. As with their upland counterparts, these habitats also support a diverse range of plants and insects, including substantial sedge-based communities. Small areas of acid and neutral in-bye grassland have also been retained under traditional management. These are species-rich communities, benefitting from years of careful management with low or no nutrient inputs, a hay cut and grazing, or simply low intensity grazing. These grasslands support populations of Nationally Rare lady's-mantles.

The standing open water habitats of the area, including drinking-water reservoirs and quarry pools, provide additional diversity of habitat within the wider upland mosaic. These areas support nationally important numbers of breeding black-headed and Mediterranean gulls, a large heronry and a population of the Nationally Scarce floating water-plantain.

Upland habitats

The views about management in this section relate to: blanket bog, dry and wet heath, acid and lime-rich flushes, rush pastures and mire grasslands and all additional upland breeding bird habitat.

Where bogs, wet heath and flushes occur, very little management is required due to the impoverished ecological conditions. These sensitive wet habitats require careful grazing to maintain their interest, ordinarily to maintain structural diversity in the habitat (plants of different ages and sizes) and to prevent the area becoming invaded by trees and shrubs. Cattle or sheep are the preferred stock for these situations but hardy ponies can also be used. Grazing is also the preferred management for dry heath. The most important management factors are the timing and intensity of grazing and, in general, light summer grazing is the preferred regime. Winter grazing can often lead to stock preferentially eating dwarf shrub species, while over-grazing at any time of the year can damage the ground and promote the dominance of grasses. Both can lead to a decline in the botanical interest of the site. Extensive grazing regimes are also key to creating appropriate habitats for and minimising disturbance to a range of ground-nesting birds such as snipe, redshank, lapwing and curlew.

The use of burning as a management tool is damaging to blanket bog, wet heath and flush communities and should be avoided. Where grazing is not possible on dry heath habitat, careful periodic burning may be a useful tool for maintaining structural diversity but it is not advisable to introduce burning to areas that have not been burned before or have no recent history of burning. Burning should only be undertaken during the winter and should follow a burning rotation that promotes maximum biodiversity – ideally small patches on a long rotation. Larger areas of mature and over-mature heather should always be available for breeding birds, particularly nesting merlin, short-eared owl, curlew and twite. All management by burning should follow the guidance set out in the 'Heather and Grass Burning Code'.

Cutting is a possible alternative to burning on areas of dry heath and may be favoured. If cutting is used, care must be taken to remove the resultant litter or germination of seedlings will be inhibited. Cutting can be usefully employed to create firebreaks, which limit the spread of destructive wildfires. However, care must be taken when using the machinery required for cutting as this can be damaging to the fragile upland peat soils. Cutting should be avoided where possible on wet habitats, for example where dry heath grades to wet heath, blanket bog or an upland flush.

No new drainage should be introduced to blanket bogs, wet heaths, flushes or their catchment areas, and deepening of any existing surface drainage should be avoided. Where water levels are controlled in bogs the water table should be maintained at or around the surface of the peat. It may be appropriate in some cases to block existing drains to prevent further lowering of the water table where this appears damaging. On bogs that have been disturbed, it may be beneficial to create new pools to allow moss re-colonisation and provide additional habitat for waders such as dunlin. Equally, in upland flushes, management must maintain or restore the natural hydrological process particularly in quantity and quality of water supply. Nutrient enrichment from stock feeding and other sources is damaging to all bog, wet heath and flush habitats and should be avoided. Care should also be taken to avoid any nutrient enrichment from adjoining water courses.

Sympathetic and extensive management as described above will also benefit the species comprising the upland and in-bye breeding bird assemblage that need a mosaic of habitats with vegetation of varying ages and structures. Of particular importance is the retention of taller heather in places, such as on slopes or along watercourses, that may provide suitable nest sites for merlin, short-eared owl and twite. Conversely, shorter vegetation particularly on flatter, gently sloping land provides nesting and feeding sites for birds such as golden plover, lapwing and curlew. It is also particularly important to maintain the open nature of the land surrounding Belmont Reservoir and in other in-bye areas, achievable in most cases through rush cutting and control. Predator control may also be beneficial to protect the breeding sites of ground nesting birds. Equally, in some locations it may be beneficial to retain and develop local cover of native scrub, scattered trees and woodland where this is consistent with management objectives for upland and in-bye breeding birds.

As the unenclosed moorland habitats within this site are highly sensitive to inorganic fertilisers and pesticides, application should be avoided. Bracken control may be desirable where uniform single species stands are demonstrated to be expanding into habitats of importance. Otherwise, bracken areas within the heathland mosaic provide nest sites for, twite and linnet.

Moorland fringe grasslands

Mire grassland and rush pasture

The views about management in this section relate to rush pasture and mire grassland habitats.

Rush pasture and mire grassland requires active management if it is to retain its conservation interest. Light summer grazing is the traditional method of achieving this, although the timing and intensity depends on local conditions, such as the need to avoid disturbing ground-nesting birds. Light trampling can be beneficial in breaking down leaf litter and providing areas for seed germination but heavy poaching should be avoided. Cattle are often the preferred stock because they produce an uneven, structurally diverse sward, are more tolerant of wet conditions and are able to better control tall grasses and rank vegetation. Where cattle are not available, ponies or hill sheep may be suitable livestock, and rushes may be cut where stock is not available. An element of managed scrub, both within and around a field can be of importance to birds and insects, as can a surrounding hedge. Cultivation, increased drainage or the application of pesticides, herbicides or fertilizer is likely to be damaging and should be avoided.

Acid and neutral grasslands

The views about management in this section relate to: acid grassland, neutral hay meadows and pastures, including those with restoration potential and those supporting the Nationally Rare lady's-mantles.

Unimproved grasslands tend to be species rich and rely on regular removal of the grass sward and dead plant material to maintain their diversity. Management should keep a relatively open sward without causing excessive poaching. In hay meadows, this is traditionally achieved by closing the fields to stock, cutting the spring and early summer growth as hay, and grazing the aftermath in the late summer/early autumn. On pasture land this management is achieved by grazing alone. In both cases, the precise timing of management and intensity of grazing depends on local factors, including soil type, past management, altitude and current weather conditions, but only light grazing should take place until after ground-nesting birds have fledged and any short-lived, characteristic plants have set seed. Heavy poaching is damaging to all lowland grasslands and must be avoided.

The application of pesticides including herbicides would be damaging and should be avoided, although the targeted application of weed-killer may sometimes be appropriate to control invasive plants such as creeping thistle or ragwort. Fertilisers should also be avoided but periodic application of well-rotted farmyard manure may be acceptable on fields managed as hay meadows, particularly if there is a proven history of use with no harmful effect on the nature conservation interest. Occasional applications of lime may also be acceptable on neutral grasslands where this is a long-established practice. In addition, occasional management of invasive scrub and bracken may be necessary.

Starry and large-toothed lady's-mantles are herbaceous perennials of traditionally-managed upland hay meadows which have not been improved by re-seeding or the heavy application of fertilisers, and whose cutting is delayed until after the plants have set seed. The slightly smaller and more delicate large-toothed lady's-mantle can survive in pasture as long as summer grazing is light enough to allow the plants to flower and set seed, although it does equally well in hay meadows, which is where this species is mostly found in the UK. Starry lady's-mantle is larger and bulkier, and able to compete in quite tall grassland, where management with a late hay cut is important for it to thrive. Neither species will survive in intensively managed grass fields, especially those cut for silage. There may be circumstances when specific management measures are needed to ensure the well-being of these currently small populations. In these situations the management will be discussed and agreed on a case-by-case basis.

Woodland

The views about management in this section relate to: upland oak woodland, wet woodland and scrub, habitat supporting woodland breeding birds and conifer plantation supporting grey herons.

A diverse woodland structure with some open space, some areas of dense understorey and a canopy of more mature trees is important. A range of tree ages and species within and between blocks of trees is desirable. Some dead and decaying wood such as fallen logs, old hollow trees or old coppice stools is essential for providing habitats for fungi, dead wood invertebrates and nesting areas for breeding birds. In this type of upland woodland, there is a graded edge to open habitat features, with scrub features including bracken and bramble vegetation providing transitional habitat.

Deer management and protection from rabbits, squirrels or livestock are often necessary. Pheasant and other game rearing is not recommended because the feeding leads to increased nutrients and the birds' foraging behaviour causes damage to the ground flora. In the case of upland woodlands, it can be beneficial to permit moderate to low levels of grazing to develop a patchy shrub layer and maintain ground layer vegetation structure. This creates conditions suitable for wood warblers and pied flycatchers. Heavy browsing should be avoided because it damages the ground flora and prevents successful regeneration.

Felling, thinning or coppicing may be used to create or maintain variation in the structure of the wood. For example, it may be appropriate to thin areas of dense, closed canopy to create more dappled shade and to encourage development of the shrub layer. Where they are a threat to the interest of the wood, non-native trees, shrubs and other plants, especially invasive plants such as *Rhododendron ponticum* or Himalayan balsam, should be targeted and removed. Natural regeneration from seed or stump regrowth (as in coppice) is preferable to planting.

Open space, either temporary gaps created by felling, coppicing or wind-throw, and more permanent areas such as rides and glades, benefits insects such as butterflies. Open spaces should be of sufficient size to ensure that sunny conditions prevail for most of the day. Where tree pipits are known to breed, management should seek to retain a more open woodland structure with large glades and rides. Rides and glades may require cutting to keep them open.

Areas of wet woodland usually benefit from minimum intervention and are often best left undisturbed to limit damage to the fragile soils associated with them and their natural hydrology - a diverse woodland structure can be achieved and maintained primarily by natural factors. Such conditions favour scrubby willow, alder and birch stands and promote abundant deadwood, benefitting the willow tit in particular.

Whilst breeding in woodlands, some woodland bird species need a variety of other habitats nearby, including open in-bye land, wet grasslands and flushes, and scrub. It is important that this mosaic of supporting habitats is maintained throughout the SSSI. In addition, pied flycatchers in the West Pennine Moors nest almost exclusively in nest boxes and therefore continued nest box provision is important to their success in the area.

In locations supporting heronries, management should maintain areas of woodland or plantation with a high proportion of tall mature trees (typically between 15-30m high) to provide suitable roosting and nesting sites for grey herons. In particular, disturbance of the woodland block during

the breeding season (late February to early August) should be kept to a minimum. Grey herons search for food over extensive areas away from their nesting sites so open water and wetland habitats present within the wider West Pennine Moors site should be retained to maintain foraging habitat.

Other features including open water bodies

The views about management in this section relate to: the Nationally Scarce floating water-plantain and breeding black-headed and Mediterranean gulls.

Floating water-plantain is an aquatic plant that requires slightly acidic, nutrient-poor to moderately nutrient-rich lakes, where it grows in water up to 2 metres deep. Although it can occupy a variety of aquatic habitats, in the West Pennine Moors it is growing in a disused quarry pool. Management should maintain water supply, quality and clarity. Neither fish nor other species, particularly water plants, should be introduced. While the species is tolerant of a small amount of disturbance, excessive disturbance should be avoided. The plant needs high levels of light so overhanging trees and other vegetation may require control. Given the importance of the species, consideration should be given to transplanting (with Natural England's permission) to other suitable water bodies nearby in order to build the resilience of the local population.

Where breeding black-headed and Mediterranean gulls are present, particularly in and around Belmont Reservoir, the lake shores and the neighbouring wet grassland, management should maintain shorter vegetation and keep shrub cover to a minimum to provide suitable nesting sites. Disturbance in the immediate vicinity of nesting birds and around the reservoir perimeter should be kept to a minimum during the breeding season (March-July inclusive). Management should also ensure nesting areas are inaccessible to mammalian predators such as foxes, mink and brown rats.

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