Scottish Natural Heritage

MERRICK KELLS
Site of Special Scientific Interest

SITE MANAGEMENT STATEMENT

Site code: 1148

Holmpark Industrial Estate
New Galloway Road
NEWTON STEWART
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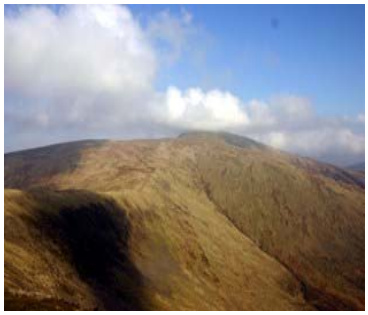
Purpose



This is a public statement prepared by SNH for owners and occupiers of the SSSI. It outlines the reasons it is designated as an SSSI and provides guidance on how its special natural features should be conserved or enhanced. This Statement does not affect or form part of the statutory notification and does not remove the need to apply for consent for operations requiring consent.

We welcome your views on this statement.

Natural features of Merrick Kells SSSI	**Condition of feature** (and date monitored)	**Other relevant designations**
Quaternary of Scotland	Favourable, maintained (January 2001)	
Caledonian Igneous	Favourable, maintained (January 2001)	
Blanket bog	Unfavourable, declining (October 2004)	SAC & Ramsar
Upland assemblage	Favourable, maintained (November 2004)	
Breeding bird assemblage	Favourable, maintained (July 1998)	
Blue aeshna dragonfly (*Aeshna caerulea*)	Favourable, maintained (August 2003)	
Beetles	Favourable, maintained (October 2002)	

Features of overlapping Natura sites that are not notified as SSSI natural features	**Condition of feature** (and date monitored)	**SPA or SAC**
Acid peat-stained lakes and ponds	Favourable, maintained (July 2004)	SAC
Acidic scree	Favourable, maintained (November 2004)	SAC

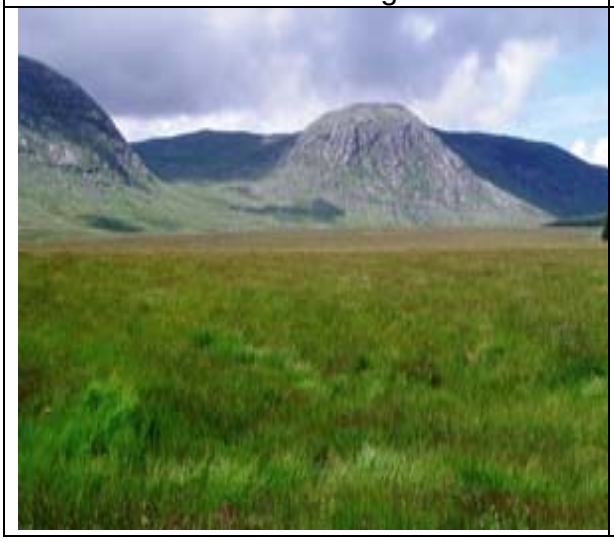
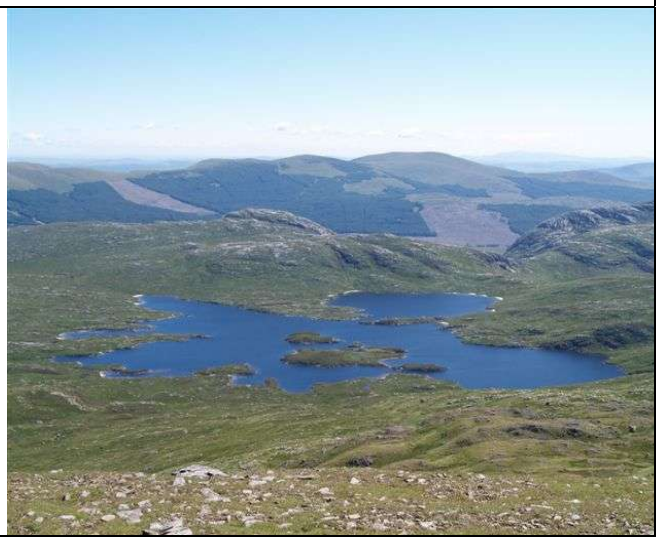
Clear-water lakes or lochs with aquatic vegetation and poor to moderate nutrient levels	Favourable, maintained (July 2004)	SAC
Depressions on peat substrates	Unfavourable, declining (October 2004)	SAC
Dry heaths	Unfavourable, declining (October 2004)	SAC
Montane acid grasslands	Unfavourable, declining (September 2004)	SAC
Plants in crevices on acid rocks	Favourable, maintained (November 2004)	SAC
Wet heathland with cross-leaved heath	Unfavourable, declining (July 2004)	SAC
Otter	Favourable, maintained (November 2003)	SAC

Description of the site

Merrick Kells SSSI consists of two parts. The larger part is dominated by the Merrick in the west and the smaller part by the Rhinns of Kells to the east; the two areas are separated by a conifer plantation. The site is the most extensive area of unafforested upland in Galloway and includes a wide range of plant communities from acid grassland through bog and heathland to the moss and sedge-dominated vegetation of the summits. One of the key features of interest is the large bog of Silver Flowe, which is the most important and varied system of patterned blanket bog in Britain. This habitat is one of the European qualifying interests of the Merrick Kells Special Area of Conservation (SAC). This area is rich in bog mosses *Sphagnum* and has pool and hummock structures similar to the bogs of the more northerly parts of Scotland. There are several lochs within the site and cliffs which support a range of arctic-alpine plants. There is a diversity of breeding birds, including raptors and other upland species, but all are present at low densities. The Tauchers glacial moraines, the rock intrusions at Craignaw and the sediments at Loch Dungeon are important in demonstrating the geological history of the Southern Uplands.

Dominance by purple moor-grass is the main reason for the blanket bog failing the Site Condition Monitoring assessment, when it would otherwise appear to be in favourable condition, but it is difficult to ascribe this to any particular management deficiency. Grazing intensity over many parts of the site does not appear to be very high and a lack of grazing should favour the spread of heather over purple moor-grass. At almost all of the sample points assessed for dry or wet heath, the cover of indicator species and/or dwarf-shrubs was below the target, again due to dominance of purple moor-grass. In addition, although the results are less reliable, dry heath probably did not meet the target for cover of pioneer stage vegetation at most sample locations. Montane acid grassland failed at half of the 12 points assessed, due to the cover of sheep's fescue being too high.

It is not surprising that siliceous scree and rocky slopes were found to be in favourable condition, but the failure of the blanket bog, dry heath, wet heath and depressions on peat substrates is difficult to ascribe to any particular management deficiency.

Silver Flowe & Dungeon Hill	Loch Enoch
	

Past and present management

The SSSI is almost entirely designated as a Special Area of Conservation. Approximately half of the western part of the Merrick area is grazed by sheep. There is some cattle grazing in the southern part of the Merrick area (specifically around Glenhead and the Buchan); this is being undertaken on an experimental basis by Forest Enterprise Scotland. The remaining areas are ungrazed by domestic stock, but there are also herds of both red deer and wild goats which graze extensively across the site.

The entire area has been grazed in the past, with drystone dykes and fences erected to contain stock. Muirburning has been practised over much of the drier parts of the site, but is currently limited in its extent. Where it is carried out, it is done in line with the Muirburn Code. The proximity of forestry plantations is a significant restriction on muirburning. There have been wildfires over parts of the area in the past, most recently, and extensively, in April 2007 when around 5,500ha of land were burnt, largely within the Merrick Kells SSSI/SAC including the Silver Flowe National Nature Reserve (NNR). Intensity of burning in blanket bog and wet heath was assessed as light or light to moderate while dry heath and mosaics of wet and dry heath were assessed as moderate. These features may be expected to make a recovery more or less to their state before the fire, though recovery times for different plant groups will vary.

There has been limited drainage carried out on parts of the site.

An area at the southern end of the Rhinns of Kells is under an SNH management agreement, which supports the management of habitats and species through the use of managed grazing by sheep and cattle. Much of the remainder of the site is subject to an agreed management plan between Forest Enterprise Scotland and SNH.

The bog at Silver Flowe has been managed as a NNR since 1956.

Other land management activities include recreation such as hill walking, climbing, fishing, birdwatching and scientific research. Recreational use of the site is increasing, particularly in the western section around Merrick and along the spine of the Rhinns of Kells. Lochs Dungeon and Macaterick are the sites of release of native brown trout,

whilst Loch Dungeon is part of a private hydro-electric scheme. Military training exercises occasionally take place within the area.

Objectives for Management (and key factors influencing the condition of natural features)

We wish to work with owners to protect the site and to maintain and where necessary enhance its features of special interest. SNH aims to carry out site survey, monitoring and research as appropriate to increase our knowledge and understanding of the site and its natural features and monitor the effectiveness of the management agreement.

The EU Habitats and Birds Directives oblige Governments to avoid the deterioration of natural habitats and the habitats of species in SACs and SPAs, as well as disturbance of the species for which the areas have been designated, in so far as such disturbance could be significant in relation to the objectives of these Directives. The objectives below have been assessed against these requirements. All authorities proposing to carry out, or permit to be carried out, operations likely to have a significant effect on the European interests of this SSSI must assess those operations against the relevant Natura conservation objectives (which are listed on our website through the SNHi - SiteLink facility).

1. **To maintain the extent of upland habitats**
   Light grazing by sheep, cattle, wild goats and deer occurs on parts of the site. Light grazing reduces tree growth on the bog and heath areas and lengthens the burning rotation on drier areas. Grazing should continue, to avoid an increase in the levels of tree/scrub invasion and to maintain the grassland and heather communities. However, the intensity of grazing should be closely monitored as any increase could adversely affect the extent of dwarf shrub communities and especially heather. Some localised reduction in stock levels may be required to reduce the impacts of grazing and trampling on summit vegetation.

2. **To maintain the diversity of breeding birds and plant interest especially of the rarer species**
   Rotational muirburning would minimise the occurrence of trees and scrub and diversify the vegetation structure, providing more open areas to benefit nesting waders. It would also assist in maintaining the grazing value for domestic stock, on those areas within agricultural management. Burning on a long rotation should be continued in the drier areas, both to provide diversity in vegetation structure and suitable habitat for ground nesting birds and, and to prevent tree and scrub invasion. Burning should not take place on areas of deep peat, as this will kill sensitive bog mosses.

3. **To maintain the wetness of the bogs by maintaining high water table levels**
   The continued formation of peat depends upon the active growth of *Sphagnum spp*. For this to proceed, the water table needs to be at, or very close to, the surface for most of the year. Continued lack of maintenance and the blocking of drainage ditches on the bogs will assist in maintaining a high water table.

4. **To maintain the bogs by removing scrub**
   Trees not only actively remove water from bogs, they can also shade out the more

typical bog plants such as bog rosemary. Whilst it is not currently a significant problem, adjacent plantations form a potential local source of tree seeds and restrict any muirburning to inherently safe areas.

Light grazing and infrequent burning (except on areas with good *Sphagnum* cover) would minimise tree growth on the open hill ground and should therefore be continued (see comments on muirburning). In cleuchs and on cliffs, the scrub/woodland communities should be protected from grazing and natural regeneration encouraged.

5. To maintain clearly visible geological exposures

Trees and scrub could obscure short- and long-distance views of the features of geological interest, which would reduce their educational value. Visibility of these features should be maintained as visible features by appropriate grazing or vegetation management.

6. To limit the impact of recreation on sensitive habitats

Increasing recreational use of the area could cause localised erosion around footpaths and summit features, although currently this is not a problem due to the improvements to the access paths onto the site limiting the majority or visitors to those paths. An increased risk of accidental summer fires is also possible.

The impacts of recreational use on the sensitive summit vegetation should be monitored and remedial action taken if the effects become severe. Action should be taken to raise the profile of the site and the need for visitors to be aware of the value of these habitats especially relating to the late spring/ summer fire risk.

7. To maintain the low nutrient water quality

The leached soils, combined with the low potential of the geology to neutralise acid inputs, mean that the area is sensitive to acidification. The water bodies within the site currently have a high acid level.

Although the leached soils have only a limited potential for neutralising acid inputs, holding water on the site longer could allow some neutralisation to take place. The development of limited amounts of deciduous scrub or woodland around water courses may also be of benefit as any leaf fall could have a buffering action.

Date last reviewed: 12 February 2010