Scottish Natural Heritage

NORTH LOWTHER UPLANDS
Site of Special Scientific Interest

SITE MANAGEMENT STATEMENT

Site code: 8161

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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 North Lowther Uplands SSSI	**Condition of feature** (and date monitored)	**Other relevant designations**
Mineralogy of Scotland	Not yet monitored	
Upland assemblage	Unfavourable, declining (October 2005)	
Breeding bird assemblage	Unfavourable, declining July 2003)	SPA
Hen harrier *Circus cyaneus*, breeding	Unfavourable, no change (July 2008)	SPA

Features of overlapping Natura sites that are not notified as SSSI natural features	**Condition of feature** (and date monitored)	**SPA or SAC**
Hen harrier *Circus* cyaneus, non-breeding	Unfavourable, declining (December 2004)	SPA
Golden plover *Pluvialis apricaria,* breeding	Favourable, maintained (June 2004)	SPA
Merlin *Falco columbarius,* breeding	Unfavourable, no change (August 2004)	SPA
Peregrine *Falco peregrinus,* breeding	Unfavourable, no change (July 2009)	SPA
Short-eared owl *Asio flammeus,* breeding	Favourable, maintained (July 1998)	SPA

Description of the site

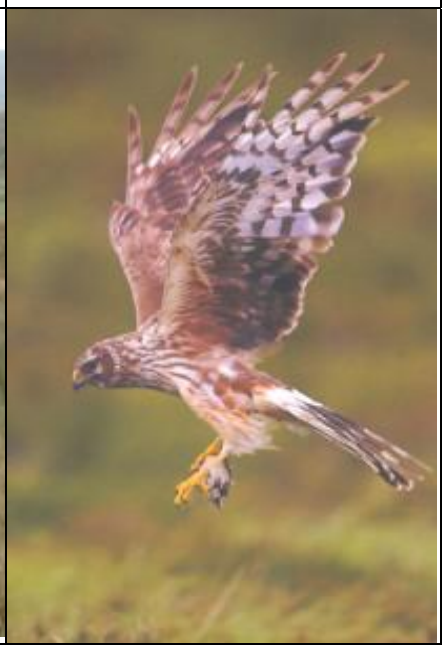
North Lowther Uplands lies 4km north of Sanquhar in upper Nithsdale and extends north into South Lanarkshire 6km south of Douglas. The site is important in showing good examples of the characteristic plant communities of the Southern Uplands. There are three main habitats: blanket bog which forms on the plateaux; heather moorland which forms a transitional band between the blanket mire and grassland; and acid grasslands which are found on the steeper slopes and in the valley bottoms. The blanket bog is dominated by heathers and cottongrass, with bog mosses *Sphagnum* and cloudberry. The heath communities have scattered bilberry, cowberry and crowberry. Grasslands are generally botanically poor, but in areas with more mineral rich soils a wider range of plants occurs, such as the locally scarce limestone bedstraw *Galium sterneri*.

The Bail Hill Geological Conservation Review (GCR) site lies within the SSSI, centred on an area of approximately 5.5 ha around Bught Craig 2 km north-east of Kirkconnel. The site which represents the mineralogy of Scotland feature, displays a section through the “throat” of a volcano. These are igneous rocks which formed when molten rock erupted from a volcano which was active 480 million years ago at a time when the Southern Uplands were being laid down as sediments on the floor of an ancient ocean, the Iapetus Ocean. The area around Bught Craig shows a wide variety of rock types erupted by the volcano and a number of different rock types that collapsed into the volcano before it became extinct.

The site also supports a nationally important upland bird assemblage which includes populations of breeding waders such as golden plover, dunlin and redshank and breeding birds of prey such as hen harrier, short-eared owl, merlin and peregrine are recorded. North Lowther Uplands SSSI is a component of the Muirkirk and North Lowther Uplands Special Protection Area (SPA) for both breeding and wintering hen harriers and for the breeding bird species listed in the above table.

The breeding bird assemblage feature has been monitored and assessed as unfavourable declining. Similarly the condition of breeding hen harrier at North Lowther Uplands SSSI is recorded as unfavourable – no change because no breeding attempts were recorded during the survey period 2004-08. Hen harrier has declined at this site since 1994 and no proven or probable breeding attempts have been recorded since 2000.

The SSSI is principally managed for grazing sheep and game and whilst both activities can create positive habitat conditions for breeding hen harrier there is significant evidence to suggest that this is not the case for North Lowther Uplands. Habitat survey undertaken in 2005 for SCM of the Upland assemblage feature indicated that the principle hen harrier nesting habitat, dry heath, had declined by 40% since a National Vegetation Classification (NVC) survey in 1997. The North Lowther Hills were subject to a severe outbreak of heather beetle in the late 1990s and it is likely that the dramatic loss of habitat can be attributed to a combination of the heather beetle outbreak, over-grazing and inappropriate muirburn practice. The Muirkirk and North Lowther Uplands Moorland Management Scheme opened in February 2003 and should help to reverse the habitat decline but not all owners/tenants have entered the scheme and coverage is currently only about 60% of the SSSI. Overgrazing and inappropriate muirburn are still concerns in areas where there has been no uptake of the scheme.

North Lowther Uplands SSSI	Hen harrier
	

Past and present management

The site has historically been grazed by stock and sheep. The heather dominated areas have been managed for grouse, with rotational burning being carried out. Many of the slopes have been drained with moor grips in the past, much of this between the wars. North of the site much of the land has been converted to forestry over the last 20-30 years. Areas around farm steadings have been more intensively grazed. Application of lime has allowed agricultural land improvements on some lower slopes that adjoin individual farms. Increased grazing pressure in upland areas adjacent to semi-improved land has resulted in heather vegetation being replaced by coarse, less palatable grasses.

Grazing with sheep and cattle continues with feed blocks being provided in spring. Rotational muirburning is carried out on areas dominated by heather. The site is also managed for grouse. Vehicles use is largely limited to the tracks within the site. Limited peat extraction for domestic use takes place at accessible locations. The majority of the site is under management agreements with the owners and occupiers or the Moorland Management Natural Care scheme with the aim of managing the habitat to achieve favourable condition of the notified features.

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

We wish to work with the owners and occupiers to protect the site and to maintain and where necessary enhance its features of special interest. SNH aims 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 agreements.

The EU Habitats and Birds Directives oblige Government to avoid, in SACs and SPAs, the deterioration of natural habitats and the habitats of species, 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, and where appropriate enhance, the diversity and condition of open moorland habitat, with a balance of bog, heather moorland and grassland**.
   The current extent of heather moorland should be increased at the expense of some of the poorer grassland. Maintain and enhance, where possible, the range and numbers of breeding moorland birds, through maintenance of nesting and feeding habitats.

2. **To maintain the high water table required for management of bog habitat.**
   The continued formation of peat depends upon the active growth of *Sphagnum*. For this to proceed, the water table needs to be at, or very close to, the surface for most of the year. Reduced maintenance or the blocking of drainage ditches on the peatland would assist with this. Stopping the maintenance to or the blocking of the drainage ditches on the peatland would assist in maintaining a high water table.

3. **To maintain open ground habitats adjacent to plantations.**
   Grazing, maintenance of high water levels and infrequent burning would minimise any tree growth seeding from adjacent plantations. The presence of plantations adjacent to areas of heather reduces the opportunity for muirburn and increases the importance of grazing as a management tool in these locations. New plantations are used by nesting and foraging birds in the pre thicket stage but once the canopy closes, feeding and nesting opportunities for upland species are greatly reduced. Increasing numbers of predators, especially fox and crows within new plantations will impact on ground nesting birds. Spring grazing and infrequent winter burning would minimise any tree growth and should therefore be continued.

4. **To maintain scrub free conditions through appropriate grazing management.**
   Light grazing with stock assists in maintaining areas free of scrub. Appropriate grazing can help reduce the development of course *Molinia* grassland at the expense of heather. Heather beetle damage has been noted throughout much of the site, making management options for affected area difficult to assess. Grazing should continue in order to reduce the likelihood of tree/scrub invasion. The intensity of grazing should not increase beyond the current level, as this could affect the amount of heather.

5. **To maintain and extend the heather cover of the site.**
Burning and swiping (following the Muirburn Code) on a long rotation, in the drier areas, should be continued, to provide both suitable nesting habitat for birds and diversity in vegetation structure. Burning should not take place on areas of deep peat as this will kill sensitive bog mosses.

6. **To maintain and increase the assemblage of ground nesting birds and game management.**
Both pest control and the shooting of game take place on the SSSI/SPA. Pest control is likely to be of significant benefit to ground nesting birds through reduced predation. Grouse favour healthy heather vegetation with a range of structure and management to achieve it. Positive game management should therefore be maintained in combination with the above objectives.

7. **To increase the breeding population of hen harrier on the site.**
Appropriate habitat management and avoidance of disturbance at crucial periods in the breeding cycle will be beneficial to the breeding population of hen harrier. Management for game as described above and the habitat management for heath, blanket bog and acid grasslands should be targeted at increasing the opportunities for hen harrier to settle and fledge young from this site in accordance with successful breeding prior to 2000.

8. **To maintain the extent and integrity of unobscured rock exposures through continuation of grazing on site to preclude rank vegetation and trees obscuring exposures.**
There should be a general presumption against the extraction of minerals from within the site. Some limited hand clearance of the existing faces may however be of benefit in order to ensure that the exposures remain visible. Such activity should only be attempted after consultation with SNH. Tipping around geological exposures should be prevented. The planting of trees can also obscure views of the features of interest and can make access for researchers difficult. Continued grazing of the site would assist in the maintenance of the exposures for research and educational purposes.

Other factors affecting the natural features of the site.
Influences of climate change with wetter, milder winters and cooler, wetter summers may impact upon breeding bird interests and maintenance of habitats. Some of these influences may be positive as well as negative, for example increasing blanket bog and pools required for breeding waders. Milder winters may allow pests such as heather beetle to expand without cold weather constraints. There may be factors, including climate change, affecting the populations of breeding waders and birds of prey away from the site.

Date last reviewed: 28 October 2010