



Scottish Natural Heritage

**BRECKON  
Site of Special Scientific Interest**

**SITE MANAGEMENT STATEMENT**

Site ref: 256

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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.



<b>Natural features of Breckon SSSI</b>	<b>Condition of feature (date monitored)</b>
Eutrophic loch	Favourable, maintained (August 2004)
Machair	Unfavourable, no change (July 2003)
Sand dune	Favourable, maintained (July 2003)
Maritime cliff	Favourable, maintained (July 2003)
Bog orchid ( <i>Hammarbya paludosa</i> )	Favourable, maintained (July 2003)

## **Description of the site**

Breckon SSSI lies in the north-east corner of the island of Yell. The site includes sand dunes, dune pasture and hill machair around a north-west facing bay - the Wick of Breckon. The finger-like headland of the Ness of Houlland forms the northern side of the bay, with an area of acid grassland in the east. The site also includes two lochs of very different character - Kirk Loch and Bena Water.

Breckon is notable as the largest area of blown shell sand in Shetland. It is particularly interesting because of the wide range of habitats that occur in a relatively small area and the unusual mix of building sand dunes and severely wind-eroded hill machair.

The Ness of Houlland is the most exposed part of the site and supports heavily spray-influenced maritime sward, largely of thrift and plantains. Progressing eastwards from the beach there is a full sequence of habitats from seasonal strand-line vegetation through dunes and dune grassland to maritime grassland on the cliff tops and nutrient-poor acid grassland inland. A small area of dune slack (seasonally wet hollows amongst sand dunes) behind the main dune ridge completes the suite of dune habitats.

Strand-line vegetation consists mainly of sea sandwort and sea rocket which grows at the back of the beach during spring and summer and is washed away in winter. Behind the beach the dunes rise as a sand cliff with a sparse cover of marram and Lyme grass. A narrow strip of mobile dune vegetation on the top of the dune ridge, where marram grows from a largely bare sand surface, quickly gives way to semi-stable dune vegetation with red fescue and an assortment of flowering plants covering the sand beneath the marram. Moonwort, an unusual small fern, grows in this area.

Machair - dune grassland growing on blown shell sand - is the most extensive vegetation type on the site, reaching over ½ km inland and covering steep slopes up to 30 m above sea level. Fragments of flower-rich machair occur around the derelict croft house at Toft but elsewhere much of the sand has blown away leaving a relatively species poor grassland growing on a thin layer of sand overlying till or bedrock.

The northern edge of the site is marked by high cliffs. Here the machair grades into cliff-top grassland with wild flower species such as frog orchid, felwort and autumn gentian, the last of which is scarce in Shetland.

To the east of Kirk Loch, the machair gives way to neutral grassland and then species-poor acidic grassland as the input of blown sand declines. This area holds Shetland's largest population of the nationally scarce bog orchid, which grows on sphagnum hummocks at the north-west corner of Bena Water and along the sides of a small burn to the north. Bog orchid is known from only 3 other sites in Shetland.



Kirk Loch is a shallow, mixed machair loch, i.e. one floored partly by blown sand and partly by other substrates, in this case rock. It is naturally nutrient-rich (eutrophic) with little nutrient input from agriculture or housing developments and supports a diverse range of aquatic vegetation, including another nationally scarce species - slender leaved pondweed. It is also of local significance as the most important site in Yell for wintering wildfowl. By contrast, Bena Water is acidic and nutrient poor with little aquatic vegetation.

### **Past and present management**

The SSSI forms part of three separate holdings and an area of common grazing. The land is currently used for grazing sheep and cattle but parts of it may have been cultivated in the distant past.

There are two management agreements on parts of the site. One, covering 8.45 ha, supports low intensity sheep grazing, including complete exclusion of stock from part of the area to allow recovery of the vegetation on a severely eroded area of machair. The second agreement supports seasonal grazing by cattle on a further 4.2 ha, low intensity sheep grazing on 2.8 ha, control of the rabbit population and erosion control measures.

Other land management activities include trout fishing on Kirk Loch and recreational activities on the beach and dunes.

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

We wish to work with the 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 agreements.

SNH encourages applications to relevant schemes such as Rural Development Contracts (Rural Priorities) that aim to deliver positive management consistent with site objectives.

### **1. To maintain the extent and condition of maritime cliff, sand dune and machair habitats and, where necessary restore the condition of the machair**

Maintain stocking at a level at which there is no obvious damage to the vegetation from overgrazing or trampling and the wildflowers within the grassland are able to flower and set seed. Control rabbit numbers to minimise the risk of erosion arising from their burrowing.

### **2. To maintain the population of bog orchid**

Avoid disturbance of the flushes where the bog orchid grows due to grazing, trampling and vehicle use.

### **3. To maintain water quality and botanical diversity of Kirk Loch**

Minimise any inputs of nitrate and phosphate to the loch, for example, from fertiliser run-off or septic tanks within the catchment. These plant nutrients can cause changes in aquatic plant communities or result in algal blooms.

## **Other factors affecting the natural features of the site**

Erosion - In the past 170 years much of the site has suffered serious erosion although this has now largely been stabilised. Rabbits burrows can trigger erosion so control of populations is beneficial. Sheep have also contributed to erosion through trampling and using erosion gulleys as shelter.

Erosion of the machair may cause the loss of what are considered to be important botanical communities, but at the same time it is a natural feature of dune systems and contributes to the diversity of habitats at the site. Erosion control must therefore strike a balance between protecting important habitats and valuable agricultural land and maintaining the natural dynamics of the dune system.

Recreation – Breckon beach and dunes are a popular attraction for locals and visitors. A marked access route to the beach directs visitors over stiles and across the dunes at a point where they are fairly robust and so limits the potential for trampling. Provided that visitors do not clamber up the main dune front, the current level of recreational use is compatible with the conservation interests of the site.

Sand Extraction – Sand has been taken from the beach in the past for use on nearby agricultural holdings. The frequency and extent of sand extraction from the site is unknown but is probably at a low enough level not to impact on the site interest. The location of any extraction is clearly sensitive as inappropriate extraction could increase the potential for further erosion and blow-outs.

Angling - Kirk Loch is stocked with brown trout. Angling is unlikely to affect the aquatic plant communities directly but there is a risk that invasive aquatic plants might be introduced on fishing gear which would be detrimental to the native plants.

Housing and other development – The botanical interest of Kirk Loch is crucially dependent on nutrient levels in the water. Increased nutrient inputs due to more intensive agriculture or inappropriate siting of septic tanks for new housing within the loch catchment would promote the growth of some species of aquatic plants at the expense of other more sensitive, scarcer species.

Date reviewed: 16 June 2009