

**FORSINARD BOGS**  
**Site of Special Scientific Interest**

**SITE MANAGEMENT STATEMENT**

**Site code: 651**

**The Links, Golspie Business Park, Golspie, Sutherland, KW10 6UB.**  
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**Purpose**



This is a public statement prepared by NatureScot 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.

This statement is available in Gaelic on request.

<b>Natural features of Forsinard Bogs SSSI</b>	<b>Condition of feature (date monitored)</b>	<b>Other relevant designations</b>
Blanket bog	Favourable, maintained (July 2007)	Special Area of Conservation (SAC), Ramsar
Breeding bird assemblage	Favourable, maintained (July 2007)	
Common scoter, breeding	Unfavourable, no change (August 2013)	Special Protection Area (SPA), Ramsar
Golden plover, breeding	Favourable, recovered (June 2015)	SPA, Ramsar
Greenshank, breeding	Favourable, recovered (June 2015)	SPA, Ramsar

See Annex 1 for a list of natural features of overlapping protected sites.

**Description of the site**

Forsinard Bogs Site of Special Scientific Interest (SSSI) covers an area of gently sloping peatland in the northeast of Sutherland, 1km north of Forsinard. The site includes many fine pool systems and lochans interspersed with blanket bog. The site is nationally important for its blanket bog and breeding birds, including its populations of common scoter, greenshank and golden plover.

Forsinard Bogs forms part of the internationally important peatlands of Caithness and Sutherland which is one of the most extensive areas of blanket bog in the world. These peatlands support internationally important populations of upland birds and otters. These species naturally occur at low densities and require large areas of undisturbed land.

The body of peat under the blanket bog is also a large store of carbon. Keeping this carbon locked up in the peat and promoting land management that maintains the peat-forming process makes an important contribution to reducing Scotland's carbon emissions, helping to combat climate change. Undisturbed peatlands also offer a buffer against floods and droughts further downstream by soaking up water during heavy rainfall and releasing it gradually during dry weather.

Forsinard Bogs SSSI forms part of the Caithness and Sutherland Peatlands SAC, SPA and Ramsar site. A list of the habitats and species that are protected by each of these international designations can be found in Annex 1. Part of the site also lies within Forsinard Flows National Nature Reserve (NNR).

The site was extended in 2022 to include areas where blanket bog is being restored following the felling of conifer plantations.

### **Blanket bog**

The blanket bog vegetation is dominated by heather and cottongrass, with carpets of *Sphagnum* mosses on the wetter, flatter areas. Bog myrtle, the scarce moss *Sphagnum austinii* and the liverwort *Pleurozia purpurea* are abundant on Forsinard Bogs SSSI, which makes the vegetation here similar to peatland sites to the west as these species are absent from the east Caithness peatlands. The site is notable for the number of small, acid, peat-stained lochs and lochans that punctuate the blanket bog. These have a distinctive flora and many are covered with a floating mat of bogbean in summer. This location is well known for its distinctive linear pool systems which are known as ladder fens. Ladder fens are areas of nutrient-enriched peatland with a series of parallel, long, narrow pools, separated from each other by narrow ridges. The vegetation in ladder fens often includes slender sedge and bog sedge.

Monitoring of the blanket bog habitat took place in 2007. The extent of the blanket bog had been maintained since previous monitoring visits and plant species typical of this habitat including heather, cottongrass, bearberry and *Sphagnum* mosses were found on the site. Grazing levels appeared to be appropriate, however small areas of damage to the ground surface caused by deer trampling were quite frequent across the site. We also recorded localised trampling near pools when we checked site management in 2015. There is a network of old drains, although many of these drains have been blocked in the north and west of the site, which has improved the bog habitat. Blocking the actively flowing drains in the east of the site would produce similar benefits here. Overall the blanket bog is considered to be in favourable condition.

### **Birds**

The extensive blanket bog, heath covered hills, lochs and streams provide ideal habitat for a variety of moorland birds. High numbers of golden plover, greenshank and dunlin return to breed on the peatlands each spring. Waterbirds, including red-throated diver, black-throated diver, greylag goose and common scoter breed on the site. Golden eagle, merlin, hen harrier and peregrine have also been recorded.

The densities of common scoter, golden plover and greenshank are particularly notable and were well above average densities across the Caithness and Sutherland Peatlands at the time of the original notification.

The bird populations were monitored in 2007-2015. The assemblage of breeding birds was found to be in favourable condition with species such as black-throated diver, greylag goose, hen harrier and dunlin breeding or feeding on the site.

The common scoter, golden plover and greenshank populations were monitored individually. Unfortunately, no common scoter were recorded on this site when monitoring took place in 2013, or during the most recent site visit in 2015. The previous monitoring assessment from 2007 also recorded no common scoters, and as a result this feature is considered to be in unfavourable condition. In the recent past this site regularly supported breeding pairs of common scoter. It is, however, on the edge of the breeding range in this area and there appears to be a contraction of this range for reasons not presently understood and further research is required. Outside the breeding season, common scoter are at sea and the population will be influenced by other factors during this period.

The densities of breeding golden plover and greenshank were monitored in May and June 2015. The populations of both waders has fluctuated on this site over the years. Numbers of golden plover and greenshank had increased since previous monitoring in 2009, so both species were assessed as having recovered to favourable condition.

Factors which may influence the density of breeding waders include the condition of the blanket bog habitat and disturbance. Forestry established along part of the edge of the SSSI reduces the breeding densities of some waders and increases potential for predation. The removal of forest blocks and the cutting back of the edges should reduce or remove such impacts. Changes in climate or weather patterns may also affect breeding wader populations.

**Other interests**

Several of the tributaries of the River Halladale, which has a significant population of Atlantic salmon, flow through Forsinard Bogs SSSI. Small tributaries such as these can be important spawning grounds for salmon and trout. Salmon and trout in the River Halladale also need a steady supply of clean water, some of which will come from this site.

Otters feed and may breed within the site.

Sphagnum moss and cotton grass	Golden plover
	

**Past and present management**

Part of Forsinard Bogs SSSI is owned by the RSPB and managed specifically for conservation. This involves habitat improvement work such as the blocking of active drainage ditches and the regular monitoring of bird numbers. No stock is currently present on the site. The area is used for occasional deer stalking and trout fishing occurs on some of the lochs. Other management activities include the infrequent use of vehicles and fence maintenance. Part of the site was damaged by an accidental fire started by sparks from a steam train in 2011.

The site was extended in 2022 to include part of an area where a conifer plantation was felled in the early 2000s with the aim of restoring blanket bog. To further this aim, dam creation, brash crushing, furrow blocking, plough ridge reprofiling and control of conifer regeneration has been undertaken with funding from NatureScot’s Peatland ACTION project.

Part of Forsinard Bogs SSSI is within the Forsinard Flows National Nature Reserve. As such it attracts some visitors including bird watchers, though numbers are naturally limited by the effort required to access much of the site. The RSPB’s Visitor Centre at Forsinard Station has an excellent display on the peatlands of Caithness and Sutherland and the majority of visitors to the NNR remain close to the Visitor Centre or nearby trails.

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

We wish to work with land managers to protect the site and to maintain and where necessary enhance its features of special interest. NatureScot 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 to monitor the effectiveness of the management.

The Conservation (Natural Habitats, &c.) Regulations 1994, as amended, 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, where such disturbance could be significant in relation to the objectives of these Regulations. 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 conservation objectives (which are listed on our website through the NatureScot - SiteLink facility).

The list of Operations Requiring Consent, and the discussions on land management involved in the issuing of formal consents, are intended to minimise the threat of any damage to the natural features.

### **1. To enhance the condition, extent and distribution of the peatland habitats.**

Blanket bog depends on a continuous cover of special vegetation which continues the peat-forming process and protects the underlying body of peat. Damage to the moss cover exposes the peat surface to erosion from extremes of weather (drying, frost, wind). Sheep and deer stocks should be maintained at levels where there is no obvious damage to the vegetation from grazing or trampling by animals.

Use of vehicles can also cause damage. Off prepared tracks, only low ground pressure vehicles should be used and care should be taken in their use. The choice of route is important: soft ground, sharp turns and areas where erosion is beginning to start should be avoided as any bare peat exposed can be very slow to revegetate.

Any muirburn should be carried out following the Muirburn Code, avoiding blanket bog and deep peat.

It is important to maintain the natural water table in peatland habitats so no new drains should be made nor existing ones cleared. Although many drains have been blocked already, it would be beneficial to block any old drains that are still active as these drains alter the natural water table and dry out the peat either side of the drain. They will also continually cut down through the peat until the underlying mineral layer is reached creating further bare peat erosion surfaces.

Restoration management will need to continue for several more decades in areas that are currently recovering to peatland from being planted with non-native conifers. A low level of deer grazing is likely to be helpful in controlling future conifer regeneration although any larger seedlings will need to be felled. Continued brash crushing or brash removal in areas where there is deeper brash is also likely to be beneficial. Construction of dams to block furrows in areas where this has not already been done is also likely to speed up peatland recovery. These areas should continue to be protected from fire and from any other activities that might hinder peatland recovery.

### **2. To maintain the water levels, water quality, extent and distribution of the clear water lochs and dubh lochans.**

Management in the areas around lochs should avoid activities that would release sediment, excessive nutrients or chemicals into the water. Activities that might alter water levels of lochs should be avoided. This objective can readily be achieved by maintaining the present

management of lochs that allows natural processes to continue with minimal intervention or disturbance.

### **3. To increase breeding bird populations and to avoid significant disturbance of birds during the breeding season.**

If the habitats on this site are maintained following the advice given in the two Objectives for Management immediately above, opportunities for uplands birds to breed on this site are also expected to be maintained. Disturbance can reduce the breeding success of nesting birds. It is important that activities on the site are carefully planned to safeguard the nesting birds.

Red-throated and black-throated divers are particularly sensitive to human presence and, along with other uncommon species (such as common scoter), are protected by special legislation. Their nests should not be disturbed during the breeding season. It is important that anglers should avoid disturbing these birds between April and June when they are nesting. Anglers should look out for divers when fishing on lochs and keep as far away from their nests as possible if fishing on larger lochs. On small lochs, anglers should move to a different loch if breeding divers are present. Islands and diver rafts are likely places for divers to nest and these should be avoided by anglers during April-June.

### **4. To maintain suitable otter habitat across the site and avoid activities that might disturb otters.**

This objective can also be achieved by maintaining the present management that allows natural processes to continue with minimal intervention. Any known otter holts should not be disturbed. To safeguard the food supply of otters, water quality in burns, rivers and lochs should be maintained by avoiding activities that might add excess chemicals, nutrients or sediment. If any management is planned that might affect banks or piles of boulders where there could be otter holts, advice should be sought from NatureScot on how to avoid impacts on otters. Any fencing on the site that is likely to cross otter routes should have mesh with a large enough gauge to allow otters to pass through.

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

- Egg collecting: Some of the rare birds that breed on Forsinard Bogs SSSI are potential targets for illegal egg collecting. Any suspicious vehicles or activity, including number plate details, should be reported to the Police as soon as possible.
- Forestry: Tree seedlings are spreading into the SSSI from the adjacent conifer plantations which in time could damage the blanket bog habitat. Forestry could also influence the hydrology of the peatland adjacent to the plantation, water flow rates and water quality in burns downstream of plantations. Birds may also be deterred from nesting near plantations.

Date last reviewed: 22 August 2023

**Annex 1: Natural features of other protected areas that overlap Forsinard Bogs SSSI.**

<b>Natural features of Caithness and Sutherland Peatlands SAC, SPA and Ramsar site that overlap Forsinard Bogs SSSI</b>	<b>Feature condition (date monitored)</b>	<b>Designation (SAC, SPA or Ramsar)</b>
Acid peat-stained lakes and ponds (dubh lochans)	Favourable, maintained (August 2004)	SAC, Ramsar
Blanket bog	Unfavourable, no change (June 2017)	SAC, Ramsar
Clear-water lakes or lochs with aquatic vegetation and poor to moderate nutrient levels	Unfavourable, declining (August 2015)	SAC, Ramsar
Depressions on peat substrates	Unfavourable, no change (June 2017)	SAC, part of Ramsar blanket bog feature
Marsh saxifrage	Favourable, maintained (August 2007)	SAC
Otter	Unfavourable, declining (September 2011)	SAC, Ramsar
Very wet mires often identified by an unstable 'quaking' surface (ladder fen)	Favourable, declining (June 2017)	SAC, Ramsar
Wet heathland with cross-leaved heath	Unfavourable, no change (June 2017)	SAC, Ramsar
Black-throated diver, breeding	Favourable, maintained (June 2018)	SPA, Ramsar
Common scoter, breeding	Unfavourable, declining (June 2013)	SPA, Ramsar
Dunlin, breeding	Favourable, maintained (June 2015)	SPA, Ramsar
Golden eagle, breeding	Favourable, maintained (August 2016)	SPA
Golden plover, breeding	Favourable, recovered (June 2015)	SPA, Ramsar
Greenshank, breeding	Favourable, maintained (June 2015)	SPA, Ramsar
Hen harrier, breeding	Favourable, maintained (June 2016)	SPA
Merlin, breeding	Favourable, maintained (July 2004)	SPA
Red-throated diver, breeding	Favourable, maintained (July 2006)	SPA, Ramsar
Short-eared owl, breeding	Not yet assessed	SPA
Wigeon, breeding	Favourable, maintained (June 2018)	SPA, Ramsar

Wood sandpiper, breeding	Favourable, maintained (June 2004)	SPA, Ramsar
Water beetle <i>Oreodytes alpinus</i>	Favourable, maintained (July 2010)	Ramsar
Bog orchid <i>Hammarbya paludosa</i>	Not yet assessed	Ramsar
Lindberg's bog-moss <i>Sphagnum lindbergii</i>	Not yet assessed	Ramsar
Olive bog moss <i>Sphagnum majus</i>	Not yet assessed	Ramsar
Freshwater pearl mussel <i>Margaritifera margaritifera</i>	Unfavourable, no change (April 2015)	Ramsar

Note - The list of features of overlapping European and Ramsar sites includes habitats and species found in the whole of the Caithness and Sutherland Peatlands SAC, SPA and Ramsar site. Some of these features may not be present on Forsinard Bogs SSSI and the presence of some species may vary from year to year.