Scottish Natural Heritage

MORRICH MORE **Site of Special Scientific Interest** **SITE MANAGEMENT STATEMENT** **Site code: 1188**	**EAST HIGHLAND AREA** **Fodderty Way** **Dingwall Business Park** **Dingwall** **IV15 9XB** **Tel: 01349 865333** **Fax: 01349 865609** **Email: EAST_HIGHLAND@snh.gov.uk**

Purpose

Innis Mhor at the east end of Morrich More.

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.

Description of the site

Morrich More Site of Special Scientific Interest (SSSI) is a large, dynamic, low lying sandy plain on the southern shore of the Dornoch Firth in north-east Scotland about 6kms east of Tain. It is one of the most important coastal sites in Scotland and has been notified as an SSSI for its coastal landforms, sand dune and saltmarsh habitats as well as for the assemblages of wintering birds, breeding birds, flowering plants and invertebrates.

Morrich More SSSI is also a component part of the Dornoch Firth and Loch Fleet Special Protection Area (SPA) which has been classified for its breeding ospreys and its wintering waterfowl assemblage. This assemblage includes wigeon, bar-tailed godwit, teal, curlew, greylag goose, dunlin and oystercatcher. Morrich More SSSI is also part of Dornoch Firth and Morrich More Special Area of Conservation (SAC) designated for its populations of common seal and otter and its diverse coastal habitats including estuaries, sandbanks, reefs, intertidal flats, saltmarsh, dunes, dune-heath and juniper scrub. The SSSI is adjacent (with a small part overlapping at the Inver Channel) to the Moray Firth SAC designated for its subtidal sandbanks and population of bottlenose dolphin (*Tursiops truncatus*).

The variety and scale of the coastal landforms at Morrich More SSSI is outstanding. These landforms include mobile parabolic and foredunes, stabilised grey dunes, salt marshes and sandflats. The site contains a complete morphological and stratigraphic record of shoreline changes over the last 7000 years. Furthermore, the site is highly

dynamic with landforms that are constantly moving and evolving. The site therefore has a potential, perhaps greater than any other part of the Highland coastline, for research into rates of contemporary change and comparison with the past.

The site contains extensive saltmarsh habitats with numerous creeks and brackish pools especially on the north side of Inver Bay. The saltmarsh grades into an equally extensive range of dune, heath and coastal grassland habitats with abundant juniper scrub in places.

The diversity of habitat results in a wide range of vascular plants including nationally scarce species such as seaside centaury, variegated horsetail, slender-leaved pondweed, Baltic rush, narrow-leaved eelgrass and dwarf eelgrass. The populations of eelgrass, Baltic rush and seaside centaury are especially large and extensive.

The range of habitats within the site is also reflected in a rich invertebrate community. Populations of the Grayling butterfly and Galium carpet moth are present on this site and are close to their northern limit. The wide range of other nationally rare and scarce invertebrate species includes the fungus gnat *Mycomya lambi* a species of cranefly *Tipula nodicornis,* several water beetles and the water flea *Eurycercus glacialis* in its only Scottish location.

The assemblage of breeding birds at Morrich More SSSI reflects the range of habitats on the site. Notable species include shelduck, ringed plover, snipe, curlew, redshank and linnet. In addition the following species occur on the site even though breeding has not been proven: grey heron, osprey, buzzard, sand martin, skylark, house martin and goldfinch.

The site is of international importance for passage and wintering wildfowl and waders. Large numbers of wildfowl in particular use the site on passage and many overwinter. These species move around the wider Dornoch Firth but Morrich More supports particularly large numbers of wigeon, bar-tailed godwit, curlew and common teal.

When last monitored, most features of the site were in a favourable condition. The saltmarsh habitats still show signs of damage from recent industrial use but it is expected that they will fully recover in time. Curved sedge, *Carex maritima*, has not been found on the site in recent years but overall the vascular plant assemblage is considered to be in a favourable condition.

Most of the SPA and SAC features of European importance on Morrich More SSSI are also in a favourable condition. The dune grassland feature is in a favourable condition on Morrich More but unfavourable elsewhere in the SAC. The coastal dune heathland and dune habitats with juniper on Morrich More were, however, considered to be in an unfavourable condition when monitored during 2001-2004. Both habitats showed poor structural diversity and browsing damage was evident on juniper bushes.

In 2004, the common seal population in the Dornoch Firth was also thought to be in an unfavourable condition having declined in recent years – possibly due to shooting to protect salmon and sea trout fisheries. At that time of monitoring it was considered to be recovering but the current situation is being investigated.

Extensive areas of salt marsh in the vicinity of Inver Bay	Seaside centaury
	

Natural features of Morrich More SSSI	**Condition of feature (and date monitored)**	**Other relevant designations**
Breeding bird assemblage	Favourable, maintained (June 2008)	SPA
Bar-tailed godwit	Favourable, maintained (February 2004)	SPA
Coastal Geomorphology of Scotland	Favourable, maintained (June 2008)	
Curlew	Favourable, maintained (February 2004)	SPA
Invertebrate assemblage (formerly flies)	Not yet assessed	
Saltmarsh	Unfavourable, recovering (August 2001)	SAC
Sand dune	Favourable, maintained (August 2001)	SAC
Teal	Favourable, maintained (February 2004)	SPA
Vascular plant assemblage	Favourable, recovered. (June 2006)	
Wigeon	Favourable, maintained (February 2004)	SPA

Features of overlapping Natura sites that are not notified as SSSI natural features	**Feature condition (date monitored)**	**SPA or SAC**
Atlantic salt meadows	Favourable, maintained (August 2001)	SAC
Coastal dune heathland	Unfavourable, no change (August 2001)	SAC
Dune grassland	Unfavourable, no change August 2001)	SAC

Dunes with juniper thickets	Unfavourable, no change (November 2004)	SAC
Estuaries	Not yet assessed	SAC
Glasswort and other annuals colonising mud and sand	Favourable, maintained (August 2001)	SAC
Humid dune slacks	Favourable, maintained (August 2001)	SAC
Intertidal mudflats and sandflats	Favourable, maintained (August 2004)	SAC
Lime-deficient dune heathland with crowberry	Favourable, maintained (August 2001)	SAC
Reefs	Favourable, maintained (August 2004)	SAC
Shifting dunes	Favourable maintained (August 2001)	SAC
Shifting dunes with marram	Favourable maintained (August 2001)	SAC
Subtidal sandbanks	Favourable, maintained (August 2004)	SAC
Bottlenose dolphin	Unfavourable, recovering (March 2005)	SAC
Common seal	Unfavourable, recovering (August 2004)	SAC
Otter	Favourable, maintained (August 2004)	SAC
Dunlin	Favourable, maintained (February 2001)	SPA
Greylag goose	Favourable maintained (February 2008)	SPA
Osprey	Favourable, maintained (July 2003)	SPA
Oystercatcher	Favourable, maintained (February 2001)	SPA
Waterfowl assemblage	Favourable, maintained (February 2008)	SPA
Bottlenose dolphin	Unfavourable, recovering (March 2005)	SAC

Past and present management

Most of the site and surrounding area has been owned and used by the Ministry of Defence (MoD) since at least the Second World War. It is now managed as an air to ground bombing range with associated clearance of unexploded ordnance and the maintenance of targets and other range facilities. This does cause localised temporary damage to the vegetation around the targets. But the range is also managed, through a management plan, by the MOD to take account of the natural heritage interests and address any features which are in an unfavourable condition.

The site has been grazed by sheep and cattle (and, in historic times, horses) for a long period of time. Most of the site is still grazed by sheep and vehicles use existing tracks

and access points to aid feeding and stock management.

In 1990 a major industrial facility was developed on a corridor through the site for fabricating and launching pipeline bundles for the North Sea oil industry. This facility had a significant impact on saltmarsh and dune habitats but it is now closed and the pipeline area has been restored.

The dunes at the western end of the site were afforested in the 1960s to prevent erosion by the wind. This forestry plantation is now managed by the Forestry Commission primarily as a commercial crop. Some areas have been cleared of trees and are being left as open space so that the dynamic nature of the site can re-establish and the natural vegetation develop.

Mussel scalps occur in the intertidal areas on Tain beach and are harvested occasionally using boats at high tide or hand raking. These scalps, and those which occur in the deep water in the Dornoch Firth, are part of the Dornoch Firth Mussel Fishery. This is now managed by Highland Fresh Mussels (a Highland Council Company) for the community of Tain and has been operating for over 500 years. King James VI of Scotland bequeathed the ownership of the mussel scalps and the right to fish them to the Royal Burgh of Tain in 1612. The fishery relies on natural mussel settlement and uses no artificial feeds, chemicals or pharmaceuticals. This sustainable harvesting of mussels is compatible with the natural interests of the site.

Cockles have also been collected from Inver Bay by local people and, occasionally, by commercial cockle fishers. The scale of mechanical harvesting in the 1990s caused damage to intertidal habitats and disturbance of wildfowl resulting in the granting of a Nature Conservation Order by the Secretary of State which is still in place. The Morrich More and Dornoch Firth Nature Conservation Order 1995 (Amendment) Order 1996 prevents the removal of marine invertebrates (other than mussels) by mechanical means or the use of vehicles or craft on intertidal habitats for shellfish-related activities (other than mussels) within Morrich More and Dornoch Firth SSSIs.

Salmon netting was practised on the site in the past and there used to be a salmon netting station on Paterson Island. Neither of these activities occur today.

Coastal protection has been undertaken near Tain to protect the golf course and housing at Plaids.

Other than the MoD land, the site is used for informal recreation. This is concentrated on Tain beach and the links to the East of Inver and is mainly walking and bird watching. Some horse riding occurs in the forestry plantation and on the beach adjacent. Motor bikes, and to a lesser extent vehicles, can easily gain access to the shore at Inver and at Plaids east of Tain and do so occasionally. They are not permitted on MoD land. There is a trials bike circuit adjacent to the SSSI at Balnagall.

Wildfowling occurs at Inver, but it is not currently thought to be at levels which causes serious disturbance to the wintering bird populations.

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

We wish to work with the owners and land managers 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.

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 the condition and extent of the coastal habitats in favourable condition by, for example:**
   - Appropriate management of grazing/browsing, stock feeding and burning
   - Avoiding damage from vehicles

2. **To maintain the natural dynamic processes important to the geomorphology and other interests of the site by, for example:**
   - Avoiding damage from vehicles
   - Appropriate management of the Forestry Commission plantation

3. **To avoid significant disturbance to the wintering aggregations of waterfowl.**

4. **To ensure that habitats are in a suitable condition to support the important vascular plant, invertebrate and breeding bird assemblages.**

5. **To ensure that conditions are suitable to support the populations of otter and common seals.**

Other factors affecting the natural features of the site

The active natural processes on the site may lead to rapid changes in the relative position of the natural features and this may mean that the extent of some features reduces. This is an essential and positive attribute of the site. Climate change may influence these processes in future.

Natural processes may also mean that the site will no longer support suitable habitat for curved sedge in future.

Date last reviewed: 8 December 2010