Scottish Natural Heritage

BERWICKSHIRE COAST (intertidal) Site of Special Scientific Interest

SITE MANAGEMENT STATEMENT

Site code: 1695

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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.

Description of the site

The Berwickshire Coast (intertidal) Site of Special Scientific Interest (SSSI) extends between Mean High and Mean Low Water Spring tide marks almost the entire length of the Berwickshire coast from the national border with England to Scruffy Hole north-west of St Abb's Head

This marine site is notified for its outstanding, extensive and diverse littoral (shoreline) rocky reef habitats and submerged and partly submerged sea caves. These features are of international importance and are two of the five key features of interest for which the Berwickshire and North Northumberland Coast Special Area of Conservation (SAC) was selected under the Habitats and Species Directive. The SSSI underpins the Scottish part of the intertidal area of the SAC where reefs, rocky shores and at least fourteen caves are present. Grey seals, intertidal mudflats and sandflats, and shallow inlets and bays are the other features of the SAC, which predominate on sites in England within the SAC. Seals do breed in very small numbers on the Berwickshire coast as well as feeding in the intertidal area. The Berwickshire Coast (intertidal) SSSI also overlies the intertidal portions of Burnmouth Coast SSSI and St Abb's Head to Fast Castle SSSI, whose chief interests are geological and terrestrial habitats and species. The latter site is also a classified SPA and this includes the intertidal.

The varied nature of the reefs and caves is partly due to the wide range of physical features present along the coastline, especially wave exposure from all directions, strong tidal currents, and a variety of different rock types. The reefs support a diversity of marine habitats and associated communities in marked zonation, determined by structural aspects including near vertical cliffs, ridges, gullies and overhangs, grading to extensive rock pool systems, boulder and cobble shores, the majority being very species rich. To the south, shores are characterised more by wave cut platforms with

large boulders.

The site exhibits excellent examples of representative North Sea marine communities, characteristic of the wide range of habitats found, with pronounced representation of northern species. The most significant communities are those of the upper shore characterised by yellow and grey lichens with barnacles through exposed and very steep upper shore rock to the lower shore with mussels, red algal turfs and barnacle mosaics. These become mixed with various species of wrack seaweeds throughout the shore profile, but the lower shore grading into subtidal zones exhibits further red algae with kelp species and sponges, especially in gullies and overhangs. Coralline crusts occur in rock pools and crevices with periwinkles and whelks, a mosaic of sponges, sea-firs, sea squirts, limpets, and sea anemones. Vertical surfaces on the lower shore tend to be dominated by dense areas of mussels, with more limpets, barnacles and whelks. Sea caves exhibit specific shaded faunal and algal communities similar to crevice situations. The rare Bryozoan ('moss animals') *Bugula purpurotincta* occurs in intertidal and subtidal communities.

The sea caves were monitored in June 2003 and were in a favourable condition. The reefs have not yet been monitored, but it is anticipated that they will also be in favourable condition.

Natural features of Berwickshire Coast (intertidal) SSSI	**Condition of feature** (date monitored)	**Other relevant designations**
Reefs	No current assessment	SAC
Sea caves	Favourable, maintained (June 2003)	SAC

Reefs exposed at low tide - taken from the cliff top	Kelp exposed at low tide
	

Past and present management

The intertidal zone is not the subject of any specific form of management. All harbours within this zone are specifically excluded from the SSSI. However, the effects of harbour management, particularly dredging of channels, may impinge on limited areas of intertidal habitat outside these exclusions.

Potting or creeling occurs along the coast within the Static Gear Reserve, but is seldom conducted in the intertidal zone for obvious reasons.

Management of the intertidal zone falls under the wider remit of protection afforded by the SAC and its comprehensive management scheme developed to integrate all uses, interests and activities in the intertidal and subtidal areas of the SAC.

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

We wish to work with the owner 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.

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 extent, physical structure and biological characteristics of the reefs and sea caves of the intertidal habitats, subject to natural change.
2. To maintain the biological, physical and chemical integrity of the site, subject to natural change, in a condition capable of supporting the characteristic range of marine species representative of the particular marine conditions at this site.
3. To ensure that all management functions are in accord with the scheme of management and conservation objectives for the Berwickshire and North Northumberland Coast SAC, by ongoing liaison with all other Relevant Authorities and users of the site through the SAC Management Group.

Other factors affecting the natural features of the site

The management of the intertidal SSSI is determined by the management objectives and prescriptions of the management scheme for the wider SAC of which it is part, and the package of conservation objectives and list of operations which may cause deterioration of or disturbance to the key features, as required under Regulation 33 of the Conservation (Natural Habitats) Regulations 1994.

Four main areas or factors comprise the main influences on management for protection of the habitat and species. These apply variably between the intertidal and the subtidal areas, but all have an impact. They are: fisheries, coastal discharges and marine pollution, coastal development and protection, and recreation. The overall function of natural coastal processes and hydrodynamics has to be taken into account in considering the effects of any one or combination of issues affecting the key features.

Due to the presence of a Static Gear Reserve, no trawling takes place within the intertidal, but there is some localised creeling up to the subtidal margin which is not considered to have an impact on the key features. Some beach landing may take place, which may cause limited physical damage to reefs. Shore-based sea angling can have limited effects by reducing territorial fish and some physical impacts on reefs. Winkle and whelk picking may take place on a small scale locally by individuals, but any impacts are thought to be negligible.

Water quality is determined by several factors, not all of which are under regulatory or managed control. The principal influence is from domestic sewage and industrial discharges (vegetable washings) causing localised enrichment. Industrial discharges are subject to forms of treatment, many of which are being upgraded, and, likewise, domestic discharges are being improved through EU legislation. Diffuse nutrient inputs from agriculture are also a factor on this section of coast and are less easy to modify. In addition to nutrient enrichment, the problem of hormone-disrupting chemicals from sewage and industrial effluent has been identified as having an effect on marine organisms including seals. Effluent solids also have localised physical impacts through increasing turbidity and direct smothering of reef communities. A relatively high degree of natural dispersion mitigates this to some extent. Marine pollution through shipping discharges and accidents can potentially involve oil and other chemicals. The impacts of the latter two are well documented. Marine litter is thought to have little impact on reefs and caves.

The main elements of coastal development and protection impacting on the intertidal are chiefly from harbour maintenance works, sea outfall construction, flood defence works and aggregate extraction. There is the potential for causing increased turbidity, sediment smothering, changes in sediment transfer patterns and some local direct damage to reefs.

As the intertidal is more directly accessible, recreational impacts can be significant locally in terms of physical damage to reefs and individual species and communities. Where there is ease of entry, caves attract visitors, but damage is thought to be minimal. The main impacts come from foot damage to reefs from walkers and rock poolers. Bait collection is not a big issue on this section of coast, with sea angling and shellfish collection also taking place for recreation purposes. The area is favoured by high numbers of divers who spend much of their time in subtidal areas. In the past, divers have indulged in shellfish collection, including taking from creels, but this is largely influenced for the better by codes of conduct. The use of sports and pleasure boats by divers and others can cause damage to reefs through landing, anchoring and fuel spillage. Any water craft is likely to disturb seals.

The intertidal area is already covered by other conservation management measures. The principal ones are the St Abb's Head National Nature Reserve, the St Abb's and Eyemouth Voluntary Marine Reserve and the St Abbs to River Tyne Shoreline Management Plan. The objectives of these plans are considered in the wider management context of the SAC of which this site is part.

Date last reviewed: 3 February 2010