SCOTTISH NATURAL HERITAGE

Mousa
Special Area of Conservation

Advice under Regulation 33(2)
of The Conservation (Natural Habitats, &c.) Regulations 1994 (as amended)

30 March 2006

About this Package:

Section 1 of this document provides a general introduction and Sections 2 and 3 fulfil Scottish Natural Heritage's duties under Regulation 33(2) of The Conservation (Natural Habitats, &c.) Regulations 1994 (Habitats Regulations) (as amended by The Conservation (Natural Habitats, &c.) Amendment (Scotland) Regulations 2004). This requires that SNH advises other relevant authorities as to the conservation objectives of the site (see Section 2) and any operations which may cause deterioration of natural habitats or the habitats of species, or disturbance of species, in so far as such disturbance could be significant, for which the site has been designated (see Section 3).

Annexes A and B provide supplementary, non-statutory information. Annex A gives information on the sensitivity and vulnerability of the marine qualifying interests: 'Common seal *Phoca vitulina*'; 'Reefs'; 'Submerged or partially submerged sea caves'. Annex B gives some indication as to the extent, distribution, structure, function and processes that affect the qualifying interests. It should be noted that this is indicative and not definitive, and as more site information is gathered these sections may be updated.

Mousa was designated by Scottish Ministers as a Special Area of Conservation (SAC) on 17th March 2005. This site is also referred to as a 'European site' (Regulation 10(1)). A 'European marine site' is a 'European site' which is wholly or in part marine (Regulation 2(1)) and is hereafter referred to as a marine SAC.

Although the following statutory information is for the benefit of relevant authorities (see below for explanation of their role), it can also be used by other competent authorities when assessing plans or projects.

1 Introduction

1.1 Background

The Conservation (Natural Habitats, &c.) Regulations 1994 (as amended by The Conservation (Natural Habitats, &c.) Amendment (Scotland) Regulations 2004), commonly referred to as the Habitats Regulations, transpose the EC Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora (Habitats Directive) into domestic legislation. Regulation 33(2) gives Scottish Natural Heritage a statutory responsibility to advise other relevant authorities as to the conservation objectives for marine SACs in Scotland, and any operations which may cause deterioration of natural habitats or the habitats of species, or disturbance of species for which the site has been designated.

This document presents the Regulation 33 advice, plus supporting information, for the Mousa SAC to assist relevant and competent authorities, local interest groups and individuals in considering management (including the management scheme) of the site. This advice, plus supporting information, will also help to determine the scope and nature of any "appropriate assessment", which the Habitats Directive requires to be undertaken for proposed plans and projects that are not connected to the conservation management of the site and are considered likely to have a significant effect. Where necessary Scottish Natural Heritage will also provide more detailed advice to relevant, and other competent, authorities to inform assessment of the implications of any such plans or projects.

1.2 Relevant and competent authorities

Within the context of a marine SAC, a relevant authority is a body or authority that has a function in relation to land or waters within or adjacent to the site (Regulation 5) and include: a nature conservation body; a local authority; water undertakers; a navigation authority; a harbour authority; a lighthouse authority; a river purification board (SEPA); a district salmon fishery board; and a local fisheries committee. All *relevant authorities* are *competent authorities*.

A competent authority is defined in Regulation 6 as "any Minister, government department, public or statutory undertaker, public body of any description or person holding a public office". In the context of a plan or project, the *competent authority* is the authority with the power or duty to determine whether or not the proposal can proceed.

1.3 The role of relevant authorities

The Habitats Regulations require relevant authorities to exercise their functions so as to secure compliance with the Habitats Directive. A management scheme may be drawn up for each marine SAC by the relevant authorities as described under Regulation 34. For marine SACs with overlapping interests, a single management scheme may be developed.

Where a management scheme is in place the relevant authorities must ensure that all plans for the area integrate with it. Such plans may include shoreline

management plans, Sites of Special Scientific Interest (SSSI) management plans, local Biodiversity Action Plans (BAPs) and sustainable development strategies for estuaries. This must occur to ensure that only a single management scheme is produced through which all relevant authorities exercise their duties under the Habitats Regulations.

1.4 Responsibilities under other conservation designations

Other designations within or adjacent to the Mousa marine SAC are: Mousa Special Protection Area; Mousa SSSI. The obligations of relevant, and other competent authorities and organisations under such designations and legislation are not affected by the advice contained in this document.

1.5 Conservation objectives

Section 2 of this document contains the conservation objectives for the Mousa marine SAC, a site which consists entirely of marine qualifying interests. The conservation objectives have been developed to ensure that the obligations of the Habitats Directive are met.

1.6 Advice as to operations

The operations, set out in Section 3, are those which SNH advise may cause deterioration of natural habitats or the habitats of species, or disturbance of species, for which the site has been designated. This does not necessarily mean that the operations are *presently* ongoing or, if they are, that they are at levels incompatible with the conservation objectives.

1.7 Plans and projects

The Habitats Regulations require that, where an authority concludes that a development proposal is unconnected with the nature conservation management of a Natura site and is likely to have a significant effect on that site, it must undertake an appropriate assessment of the implications for the qualifying interest for which the area has been designated.

1.8 Review of Consents

Competent authorities are required by the Habitats Regulations to undertake a review of all consents and permissions for activities affecting the site as soon as reasonably practicable after it becomes a European site. This will have implications for discharge and other consents, which will need to be reviewed in the light of the conservation objectives.

2 Statutory advice given by SNH under Regulation 33(2) Conservation Objectives

2.1 Introduction

This section provides conservation objectives, which have been developed by SNH in agreement with the Scottish Executive and are to be provided to the relevant authorities in fulfilment of the requirements under Regulation 33(2) of The Conservation (Natural Habitats, &c.) Regulations 1994 (as amended by The Conservation (Natural Habitats, &c.) Amendment (Scotland) Regulations 2004).

The conservation objectives ensure that the obligations of the Habitats Directive are met; that is, there should not be deterioration or significant disturbance of the qualifying interest. This will also ensure that the integrity of the site is maintained and that it makes a full contribution to achieving favourable conservation status for its qualifying interests.

The Mousa marine SAC has been designated for the species 'Common seal *Phoca vitulina*', which is listed on Annex II of the Habitats Directive, as well as for the Annex I habitats 'Reefs' and 'Submerged or partially submerged sea caves'.

The Mousa SAC consists entirely of marine qualifying interests.

The conservation objectives for the Mousa marine SAC are as follows:

To avoid deterioration of the habitats of qualifying species (**Common seal *Phoca vitulina***) or significant disturbance to the qualifying species, thus ensuring that the integrity of the site is maintained and the site makes an appropriate contribution to achieving favourable conservation status for the qualifying interest.
To ensure for the qualifying species that the following are maintained in the long term:
• Population of the species as a viable component of the site
• Distribution of the species within site
• Distribution and extent of habitats supporting the species
• Structure, function and supporting processes of habitats supporting the species
• No significant disturbance of the species

To avoid deterioration of the qualifying habitats (**Reefs** and **Submerged or partially submerged sea caves**) thus ensuring that the integrity of the site is maintained and the site makes an appropriate contribution to achieving favourable conservation status for each of the qualifying interests.
To ensure for the qualifying habitats that the following are maintained in the long term:
• Extent of the habitat on site
• Distribution of the habitat within site
• Structure and function of the habitat
• Processes supporting the habitat
• Distribution of typical species of the habitat
• Viability of typical species as components of the habitat
• No significant disturbance of typical species of the habitat

3 Statutory advice given by SNH under Regulation 33(2) Operations

The following advice as to operations to be considered by relevant authorities is provided by SNH with respect to the Mousa marine SAC in fulfilment of the requirements under Regulation 33(2)(b) of The Conservation (Natural Habitats, &c.) Regulations 1994 (as amended by The Conservation (Natural Habitats, &c.) Amendment (Scotland) Regulations 2004). The advice identifies those operations, either on or affecting the SAC, which may cause deterioration of the marine natural habitats or the habitats of species, or disturbance of species, for which the site has been designated. These include operations that may not be currently affecting the Mousa marine SAC.

Operations (in alphabetical order)

Aquaculture
Finfish farming
Shellfish farming

Coastal Development
Agriculture
Civil engineering
Lighthouse maintenance

Discharges / Waste Disposal
Discharge of commercial effluent
Discharge of sewage

Fishing
Mobile gear: Dredging
Mobile gear: Trawling
Static gear: Creel / Pot fishing

Gathering / Harvesting
Intertidal collection of shellfish

Marine Traffic
Boat maintenance and antifoulant use
Commercial vessels

Recreational Activities
Boat anchorages
Boat moorings
Charter / recreational vessels
Other recreational activities
Scuba diving
Sea kayaking

Scientific Research
Scientific research

Annex A

Non-statutory advice given by SNH
Sensitivity and Vulnerability of the Mousa SAC 'Common seal *Phoca vitulina*', 'Reefs' and 'Submerged or partially submerged sea caves' to activities listed in Section 3

The comments below are general and should not be considered to be definitive. They are made without prejudice to any comments SNH may provide or any assessment that may be required for specific proposals to be considered by a relevant authority. The level of any impact will depend on the location and intensity of the relevant activity. This advice is provided to assist and focus the relevant authorities in their consideration of the management of these operations.

NB. References to deterioration in the comments section below should be taken to mean *deterioration of all the qualifying interests*. If specific qualifying interests are particularly at risk they may be referred to individually where relevant.

Operations	Comments
Aquaculture	
Finfish farming	**Seals:** Finfish farming has the potential to cause disturbance, injury or mortality to seals through entanglement in anti-predator nets or nets used to re-capture escaped fish, shooting (legal only outwith the close season) to protect fish farm stock from seal damage, or using acoustic deterrent devices (ADDs). Chemical treatments associated with finfish farming have the potential to adversely affect seals. Boat activity associated with finfish farming has the potential to cause disturbance to seals, particularly during breeding and pupping (late May to end June) and moulting (August) seasons.
	Habitats: Finfish farming has the potential to cause deterioration of qualifying habitats and communities through changes in water quality, smothering from waste material and physical disturbance from mooring systems. There is potential for accidental introduction of new non-native species and increasing the spread of existing non-native plants and animals (e.g. *Caprella mutica* Japanese skeleton shrimp), which are already widely distributed in the UK. Invasive species have the potential to cause deterioration of the qualifying interests by altering community structure and quality.
Shellfish farming	**Seals:** Use of ADDs or other predator control methods (eg. sonic canon, boat chasing) to prevent grazing by eiders has the potential to cause disturbance to seals. Boat activity associated with shellfish farming has the potential to cause disturbance to seals, particularly during breeding and pupping and moulting seasons.

Aquaculture contd.		
Shellfish farming contd.		**Habitats:** This activity has the potential to cause deterioration of the qualifying habitats and communities through physical damage (e.g. installation of mooring blocks and continued scouring by riser chains) and changes in community structure caused by smothering from pseudo-faeces (undigested waste products) and debris (including dead shells) falling from the farm. There is also potential for accidental introduction of new non-native species and increasing the spread within the UK of existing non-native plants and animals (e.g. *Sargassum muticum* Wireweed), through importation or translocation of shellfish stocks. Invasive species have the potential to cause deterioration of the qualifying interests by altering community structure and quality.
Coastal Development		
Agriculture		**Seals:** Stock movements and boat transportation of sheep have the potential to cause disturbance to seals, particularly during breeding, pupping and moulting periods.
		Habitats: Diffuse run-off from agricultural practices has the potential to cause deterioration of qualifying habitats and communities, particularly reefs, through the smothering of qualifying interests, and / or altering water quality through discharge of organic and inorganic pollutants.
Civil engineering		**Seals:** The construction and maintenance of structures, both within and adjacent to the sea, have the potential to cause disturbance during the breeding, pupping and moulting seasons. This activity also has the potential to cause loss or deterioration of the habitats upon which the seals depend during the same critical periods.
		Habitats: The construction and maintenance of structures, both within and adjacent to the sea have the potential to cause direct loss of qualifying habitat (particularly reefs) and deterioration of adjacent reef habitats and communities as tidal currents and therefore coastal processes are affected. For example coastal structures such as linear coastal defences or erosion control measures (e.g. gabions) can affect local sediment suspension and deposition patterns and therefore have the potential to cause deterioration of qualifying habitats through smothering. Installation, replacement and maintenance of undersea cables have the potential to cause direct loss of qualifying habitats as well as local deterioration of associated habitats and communities.
Lighthouse maintenance		**Seals:** The use of helicopter for the servicing of the lighthouse has the potential to cause disturbance to seals, particularly during the breeding, pupping and moulting seasons. This would be through noise disturbance and human presence.
Discharges / Waste Disposal		
Discharge of commercial effluent		**Habitats:** Commercial effluent has the potential to cause deterioration of reef habitats and communities. This would be through the effects of pollution and / or nutrient enrichment, which may cause subsequent changes in community structure.
Discharge of sewage		**Habitats:** Sewage effluent (whether treated or untreated) has the potential to cause deterioration of reef habitats and communities. This would be through the effects of pollution and / or nutrient enrichment, which may cause subsequent changes in community structure.
Fishing		
Mobile gear: Dredging		**Habitats:** Benthic dredging has the potential to cause deterioration of qualifying habitats and communities (particularly reefs) through direct contact with dredge gear, and sedimentation when dredging occurs close to the qualifying interest.
Mobile gear: Trawling		**Habitats:** Benthic trawling has the potential to cause deterioration of qualifying habitats and communities (particularly reefs) through direct contact with trawling gear, and sedimentation when trawling occurs close to the qualifying interest.

Fishing contd.		
Static gear: Creel / Pot fishing		**Seals:** Creel / pot fishing has the potential to impact seals as they have been known to attempt to rob creels of their bait, consequently become entangled and subsequently drown.
		Habitats: The use of creels and / or pots in a localised area has the potential to cause deterioration of qualifying habitats and communities through direct contact, particularly during their deployment and / or recovery.
Gathering / Harvesting		
Intertidal collection of shellfish		**Seals:** Collection of shellfish from intertidal areas has the potential to cause disturbance to seals (particularly during breeding, pupping and moulting seasons), mainly caused by intense and prolonged human presence.
		Habitats: Collection of shellfish from intertidal areas has the potential to cause deterioration of reef habitat and communities through physical damage and disturbance to qualifying habitat (trampling and turning stones), and removal of the target species, which can cause an imbalance of communities and ecosystems.
Marine Traffic		
Boat maintenance and antifoulant use		**Habitats:** Most antifoulant products are designed to kill or discourage naturally occurring organisms and, as such, cause damage to the water environment if used carelessly. Under such circumstances use of antifoulant has the potential to cause deterioration of qualifying habitats and communities within this site.
Commercial vessels		**Seals:** Commercial ferry services have the potential to cause disturbance to seals if these vessels pass and / or moor close to the seal haul out areas, particularly during the breeding, pupping and moulting seasons. Oil spills have the potential to cause damage to seal haul outs. Seals generally leave an area in which oil is spilled but a small number of individuals may suffer from respiratory problems and die as a result of the spillage of a large amount of oil. Oil tankers do not generally pass close to Mousa but there is always a risk that a fishing boat or container ship may run aground in the area spilling diesel and fuel oil. Local authority and harbour oil spill contingency plans should take into account the qualifying interests of Mousa and the importance of the marine SAC, particularly during the seal's breeding, pupping and moulting seasons, should such incidents occur.
		Habitats: The pumping of bilges, discharge of ballast, accidental grounding, or accidental oil (or other chemical) spillage from commercial vessels could occur within or close to this SAC. Such incidents have the potential to cause deterioration of qualifying habitats and communities through direct and / or indirect impacts. Local authority emergency plans and oil spill contingency plans should take into account specific qualifying interests and recognise the importance of marine SACs should such incidents occur.
Recreational Activities		
Boat anchorages		**Habitats:** Anchors and continual scouring by riser chains have the potential to cause deterioration of reef habitats and communities through direct contact with the qualifying interest.
Boat moorings		**Habitats:** Moorings and continual scouring by riser chains have the potential to cause deterioration of reef habitats and communities through direct contact with the qualifying interest.

Recreational Activities contd.		
Charter / recreational vessels		**Seals:** Charter boats, especially on trips specifically designed to visit seal colonies, have the potential to disturb seals (particularly during the sensitive breeding, pupping and moulting periods) if appropriate guidelines for watching seals are not adhered to. Charter and recreational vessels may leave visitors to explore offshore islands or more remote areas that are close to seal haul out sites. Such human presence also has the potential to cause disturbance to seals if guidelines are not adhered to.
		Habitats: Boats have the potential to cause deterioration of reef habitats and communities through repeated launching and recovery in specific areas, accidental grounding, and accidental fuel spillages.
Other recreational activities		**Seals:** Land-based visitors have the potential to cause disturbance to seals, and deterioration to their associated habitats, if guidelines for watching seals are not adhered to. This is particularly so if visits are unmanaged, in large groups or with dogs, especially during the breeding, pupping or moulting seasons.
Scuba diving		**Seals:** Recreational diving and snorkelling in specific areas has the potential to cause disturbance to seals, particularly during the breeding, pupping and moulting seasons. The use of RHIBs and hard-boats associated with these activities also have the potential to cause disturbance to seals.
		Habitats: Recreational diving in specific areas has the potential to cause deterioration of qualifying habitats and communities, in particular to erect and fragile reef species.
Sea kayaking		**Seals:** Sea kayaking and other activities such as canoeing and rowing have the potential to cause disturbance to seals, particularly during the breeding, pupping and moulting seasons. This disturbance will mainly be caused by seals being suddenly alarmed by the proximity of a quiet, approaching boat.
Scientific Research		
Scientific research		**Seals:** Research activities have the potential to cause disturbance to common seals, particularly during the breeding, pupping and moulting seasons.
		Habitats: Research activities have the potential to cause deterioration of qualifying habitats and communities through direct alteration, removal or manipulation of these qualifying interests and their associated species.

Annex B

Non-statutory Advice given by SNH
Site account

Site description

The exposed rocky island of Mousa, on the east coast of Shetland, consistently supports a nationally important breeding colony of the common seal *Phoca vitulina*. The near-shore habitats, particularly shallow bedrock reefs, are important nursery areas for the seals. Around 400 adults haul out along the site's undisturbed shores to rest, pup and moult.

Mousa is noted for the high quality of bedrock reefs that fringe much of the coastline. The reefs encompass a range of conditions from exposed on the open coast to sheltered within the inlets. The associated communities are representative of reef habitats in Shetland.

The site also contains good examples of submerged and partially submerged seacaves in an exposed environment. The marine environment of the Shetland Islands is characterised by boreal-arctic (northern) species-rich communities that are found nowhere else in the UK.

Qualifying marine interests
Annex I Habitats:
Reefs

Mousa is noted for the high quality of bedrock reefs that fringe much of the coastline. The reefs encompass a range of conditions, from extremely exposed on the open coast to very sheltered within the enclosed pools. The associated communities are representative of reefs habitats in Shetland. The marine environment of the Shetland Islands is characterised by boreal-arctic (northern) species-rich communities that are found nowhere else in the UK.

One of the most widespread species, found throughout the SAC, is the soft coral *Alcyonium digitatum*. This occurs mostly on bedrock or boulders over a wide depth range, occurring in patches or as a dense carpet. The dominant encrusting algae and small encrusting species such as *Pomatoceros* spp., barnacle species and pink encrusting coralline algae reflect Mousa's northerly biogeography. Brittlestar beds were circalittoral and were found on substrata of bedrock and boulders, to the south-east of Mousa in depths between 30-70m. Maerl was found in patches in the northern end of Mousa Sound.

Records of note include areas with the sea urchin *Strongylocentrotus droebachiensis*, in the small bay west of Perie Bard. This species is only found in Shetland and is of marine national heritage importance as it is listed as rare by JNCC. The presence of an under-boulder biotope (MLR.Fser.Fser.Bo – *Fucus serratus* and under-boulder fauna on lower eulittoral boulders) in the very sheltered inlet of East Ham is also thought to be of particular interest.

Submerged or partially submerged sea caves

Mousa is also noted for its submerged or partially submerged sea caves that are found in the shore cliffs, particularly on the north and south-west coast. Within the site there are sea caves in very exposed conditions, as well as tunnels and gullies that provide areas of relative shelter. The cave at Masti Geo is one of the deepest penetrating caves on Mousa, extending approximately 90m into the island, but being only 6m wide at its widest. There are a number of caves and steep-sided gullies present on the north coast of Mousa including a small cave 'system' near to East Ham which has five entrances with narrow pillars supporting the roof arches between the entrances. A truly spectacular cave is found a little further to the north, named 'Boom cave' on account of the noise made at its far end by successive swells entering the cave. The communities that grow within the sea caves are subject to a wide range of wave, current and light conditions, and reflect these changing environmental circumstances.

Annex II Species: Common seal *Phoca vitulina*

Common seals are widespread around the UK coast although population densities and numbers vary greatly. The island of Mousa supports one of the largest groups of common seals in Shetland and one of the most northerly groups in the UK. The UK holds some 28,000 common seals, approximately 50% of the EC population and this site supported in 1997 some 400 animals, 1.3% of the total UK population.

The data above were used for site evaluation purposes. Since then SMRU has carried out further surveys, which suggests that there was a reduction in 2001.

Attributes of the common seal habitat are the availability and ease of access to suitable and undisturbed breeding, pupping, moulting and haul-out areas on the island. Also, the availability of undisturbed shores and adjacent areas of sea facilitate adult social interactions and mating, whilst also acting as a nursery area. The large rocky tidal pools on the island are of particular importance, as they are frequently used by the seals for shelter from the exposed conditions on the open coast. Common seals are opportunistic foragers, feeding on locally and seasonally abundant prey in fairly shallow depths usually less than 100m.