DEPARTMENT OF THE ENVIRONMENT FOR NORTHERN IRELAND

DECLARATION OF AREA OF SPECIAL SCIENTIFIC INTEREST AT STRANGFORD LOUGH (PART 2), COUNTY DOWN. ARTICLE 24 OF THE NATURE CONSERVATION AND AMENITY LANDS (NORTHERN IRELAND) ORDER 1985.

The Department of the Environment for Northern Ireland (the Department), having consulted the Committee for Nature Conservation and being satisfied that the area of land and intertidal foreshores down to low water mark on the seaward side of the solid black line and enclosed within the broken black lines over water on the attached map (the area) is of special scientific interest by reason of the flora and fauna and accordingly needs to be specially protected, hereby declares the area to be an area of special scientific interest to be known as the "Strangford Lough (Part 2) area of special scientific interest".

Strangford Lough as a whole is one of the largest sea-loughs in Northern Ireland, and possesses a landscape of drowned drumlins and raised beach terraces which have been shaped by the Quaternary glaciation. The drumlins display various stages of wave erosion, with a number of them reduced to rocky islets and reefs, known locally as "pladdies". The intertidal zone covers approximately 50 km^2 and the diversity of the marine habitats is internationally renowned. The many different intertidal habitats are identifiable on the basis of substrate type and wave exposure with each one supporting a characteristic range of species; no comparable area in Northern Ireland has so wide a range of either habitats or species. There are a number of species of interest because they are near the northern (eg Diodora apertura (Keyhole Limpet), Elysia viridis (a sea slug), Cereus pedunculatus (Daisy Anemone)) or southern (eg Acmaea tessulata (Tortoise-shell Limpet), Leptasterias mulleri (a starfish)) extremes of their ranges. The richness of the marine flora and fauna can largely be attributed to physiographical features resulting in the immense tidal flow through The Narrows, the range and timing of the tidal variations in the lough and the wide variety of substrates which occur. The lough as a whole represents a unique and extremely complex, integrated system.

The Strangford Lough (Part 2) area of special scientific interest contains representative areas of a large number of intertidal habitats ranging from soft mudflats to steeply faced bedrock. The principal physical factor influencing these various intertidal habitats is the exceptional flow of water through The Narrows and this gives rise to an extremely diverse flora and fauna. A considerable number of species exhibit the "emergence phenomenon", where typically sublittoral organisms are found living on the shore.

Large numbers of filter-feeding organisms take advantage of the high plankton turnover provided by the exceptional water movement. Many phyla are represented including the Porifera (sponges eg Hymeniacidon sanguinea and Myxilla incrustans), Bryozoa (sea-mats), Sipunculoidea (cylindrical-shaped worms eg Golfingia elongata) and Chordata (sea-squirts eg Dendrodoa grossularia and Corella parallelogramma). The Phylum Cnidaria is represented by numerous species of both the Class Hydrozoa and the Class Anthozoa. Of the latter class, notable species found on the shore include the usually sub-tidal soft-corals Alcyonium digitatum (Dead Man's Fingers) and Alcyonium glomeratum, which is at the northern extreme of its range, and the true coral Caryophyllia smithii (Devonshire Cup Coral), which is only very rarely found intertidally. The diversity of sea-anemones is extremely high. Burrowing species, all of which occur normally only at extreme low water spring tides and below, are Cerianthus lloydi, Halcampa chrysanthellum, Sagartia sp., Peachia cylindrica, Edwardsiella carnea and Cereus pedunculatus (Daisy Anemone), the latter being near the northern extreme of its range. Rocky substrate anemone species include Tealia felina, Anemonia sulcata (Snakelocks Anemone) and Actinia equina (Beadlet Anemone).

The latter species is particularly notable at Rue Point, where very large populations form carpets of anemones around the mid shore. Metridium senile (Plumose Anemone), a species which it is most unusual to find on the shore, and Corynactis viridis (Jewel Anemone) which is at or near the northern extreme of its range are both found on the low shore, particularly around Rue Point.

The various soft sediments range from soft mudflats around Castle Island and Gores Island, through muddy sand such as at Bar Hall Bay, to clean sandy bays like those at Kilclief Bay and Mill Quarter Bay. The soft mudflats support dense communities of a variety of burrowing organisms including numerous spionid worms of the genera Nereis and Nephtys and the bivalve mollusc Macoma balthica (Baltic Tellin) and the amphipod, Corophium volutator. The rare priapulid worm, Priapulus caudatus, which is the only known British representative of this very unusual group of animals, is found around Gores Island.

The muddy sand in Bar Hall Bay contains a large population of Lanice conchilega (Sand Mason Worm); this is an uncommon species in Strangford Lough. The muddy shell-sand and gravel beaches around Black Island and Green Island to the north of Ballyquintin Point have a rich meiofauna and are the type locality for two species; the gnathostomolid, Austrognathia boadeni, and the turbellarian Retronectes terpsichore.

The sandy shore at Kilclief Bay supports very dense populations of various deep burrowing organisms including Ensis siliqua (Pod Razor Shell) and the echinoderms Echinocardium cordatum (Sea-potato) and Acrocnida brachiata, a peculiar burrowing brittle star.

There are a number of sheltered boulder shores which all have a very species-rich flora and fauna, locations of special note include the shore around Ballyhenry Island, where there are luxuriant growths of the unusual free-floating form of the Knotted Wrack, Ascophyllum nodosum var Mackaii. The under-boulder fauna is particularly diverse and includes the nemertine Lineus longissimus (Bootlace Worm) and a notable variety of echinoderms: Henricia oculata, Leptasterias mulleri, Asterina gibbosa (Cushion-star), Echinocardium cordatum (Sea-potato), Psammechinus miliaris (Green Sea-urchin) and Echinus esculentus (Edible Sea-urchin), the latter being a species not normally found in the intertidal zone.

Granagh Bay on the east coast of The Narrows is an extremely interesting area, with the complete range of substrates occurring within a relatively confined area. The boring bivalve Pholas dactylus (Common Piddock) is found most unusually burrowing into clay, and a rare member of the Phylum Hemichordata, Glossobalanus sarniensis, is present in the sandy areas. At extreme low water mark, living in sediment is Maxmuelleria lankesteri, a rare member of the Phylum Echiura, of which only 6 species are recorded from British waters.

At the northern end of Marlfield Bay there is an area of uniformly sloping bedrock which is an uncommon physical feature in Strangford Lough. The classical zonation pattern of intertidal algae and under-canopy fauna can be seen here.

Areas of fringing saltmarsh are important because of the diversity of plant species found and the rarity of this habitat in Northern Ireland. A typical assemblage of saltmarsh plants occurs at these sites. At Bar Hall Bay the rich

saltmarsh flora is dominated by Puccinellia maritima (Common Saltmarsh Grass), Aster tripolium (Sea Aster) and Halimione portulacoides (Sea Purslane); the latter is of particular interest as it is near its northern limit in Ireland and is present in unusual abundance. Other notable saltmarsh species include Cochlearia danica (Early Scurvy-grass),Blysmus rufus (Saltmarsh Flat Sedge) and Eleocharis uniglumis (Slender Spike-rush). In addition, there are several localities in the Part 2 area where the strandline species Atriplex littoralis (Grass-leaved Orache) occurs, which is rare in Ireland.

In places there are natural transitions from mudflat and saltmarsh to freshwater fen, maritime heath and scrub. Bar Hall Bay, with its complex topography of rocky promontories and muddy inlets, is particularly notable in this respect.

Four species of Tern breed on a number of islands in the area. The principal colonies are found on Jackdaw Island, and to a lesser extent on Swan Island and Dunnyneill Island. Small numbers of Roseate Tern (Sterna dougallii) and Arctic Tern (Sterna paradisaea) have been recorded, while numbers of Common Tern (Sterna hirundo) and Sandwich Tern (Sterna sandvicensis) constitute over 10% and over 40% respectively of the total Irish breeding population, and more than 45% and 70% respectively of the Strangford Lough populations.

Strangford Lough is the most important breeding site in Ireland for the Common Seal (Phoca vitulina). Over 60% of the breeding population of Strangford Lough is found in The Narrows, the largest colonies being at Bar Hall Bay, Angus and Garter Rocks and Cloghy Rocks. In addition, small numbers of Grey Seals (Halichoerus grypus) regularly occur in The Narrows of Strangford Lough.

SCHEDULE

The following operations and activities appear to the Department to be likely to damage the flora and fauna of the area and require prior notification to and permission from the Department:-

- Cultivation, including ploughing, rotovating, harrowing or re-seeding.
- Changes in the grazing regime, including changes in type of livestock or significant increase or decrease in livestock population, or changes in the seasonal pattern of grazing or cessation of grazing.
- Changes in livestock feeding practice.
- Changes in the mowing or cutting regime, including changes from hay making to silage cutting, or cessation of mowing.
- Application of manure, slurry, fertilisers or lime.
- Application of pesticides, herbicides, fungicides or other chemicals deployed to kill, selectively or non-selectively, any form of animal, plant or other living organism.
- Dumping, spreading or discharge of any matter.

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- Burning.

- The release into the area of any wild, feral or domestic animal, plant, or seed. "Animal" includes any mammal, reptile, amphibian, bird, fish or invertebrate but does not include livestock.

- The destruction, displacement, removal or cutting of any plant, seed or plant remains.

- Changes in tree or woodland management (including, afforestation, planting, clear and selective felling, thinning, coppicing, modification of the stand or underwood, changes in species composition).

- Drainage, including the use of mole, tile, tunnel or other artificial drains.

- Modification of the structure of water courses (for example, rivers, burns, springs, ditches, drains), including their banks and beds such as by realignment, regrading or dredging.

- Management of aquatic or bank vegetation.

- The alteration of water levels or water tables or utilisation of water (including storage or abstraction).

- Infilling of ditches, drains, ponds, pools, marshes or pits.

- Changes in coastal fishing practice, and changes in fisheries management, and changes in the use of traps or fish cages.

- Collection of sea food or marine organisms.

- Reclamation of land from sea, estuary, marsh, lake or river.

- Bait digging in intertidal areas.

- Erection of sea defences or coast protection works including cliff or landslip drainage or stabilisation measures.

- Extraction of minerals including shingle, sand, gravel, topsoil, sub-soil, or shells.

- Construction, removal or destruction of roads, tracks, walls, fences, hard-standings, banks, ditches or other earthworks or the laying, maintenance or removal of pipelines or cables, above or below ground.

- Storage of materials.

- Erection of permanent or temporary structures or the undertaking of building, engineering or other operations, including drilling, or the formation of access roads.

- Alteration or modification of natural or man-made features, (including clearance of boulders, large stones, loose rock or scree, infilling of pits or quarries).

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- Use of vehicles or craft likely to damage or disturb the wildlife.

- Recreational, educational or research activities likely to damage the wildlife.

- Changes in game or waterfowl management or hunting practices.

- Exercising of animals in areas where they are likely to disturb or damage the wildlife.

Sealed with the Official Seal of the Department of the Environment for Northern Ireland on 22 September 1988

J C L PHILLIPS
Assistant Secretary

Y88007/CWB

STRANGFORD LOUGH (PART 2)

Views About Management
The Environment (Northern Ireland) Order 2002 Article 28(2)

A statement of Environment and Heritage Service's views about the management of Strangford Lough (Part 2) Area of Special Scientific Interest ("the ASSI")

This statement represents the views of Environment and Heritage Service about the management of the ASSI for nature conservation. This statement sets out, in principle, our views on how the area's special conservation interest can be conserved and enhanced. Environment and Heritage Service has a duty to notify the owners and occupiers of the ASSI of its views about the management of the land.

Not all of the management principles will be equally appropriate to all parts of the ASSI and there may be other management activities, additional to our current views, which can be beneficial to the conservation and enhancement of the features of interest. It is also very important to recognise that management may need to change with time.

The management views set out below do not constitute consent for any operation or activity. The written consent of Environment and Heritage Service is still required before carrying out any operation or activity likely to damage the features of special interest (see the Schedule on pages 3 - 5 of the attached Document B for a list of these operations and activities). Environment and Heritage Service welcomes consultation with owners, occupiers and users of the ASSI to ensure that the management of this area maintains and enhances the features of interest, and to ensure that all necessary prior consents are obtained.

MANAGEMENT PRINCIPLES

Mudflats

Mudflats are an important habitat for wildlife. The littoral sediments support a wide variety of marine invertebrates that represent an important food source for many fish and bird species. They also support beds of seagrass and a rich algal and sponge assemblage which are sensitive to habitat disturbance and water and sediment quality. Environment and Heritage Service would encourage the maintenance and enhancement of the mudflat through the conservation of its associated native plants and animals.

Specific objectives include:

> As disposal of dredge or other material can lead to smothering of species Environment and Heritage Service would discourage such activities.
>
> As mudflats are sensitive to disturbance Environment and Heritage Service would encourage the sympathetic use of the habitat to ensure that disturbance and physical damage to the intertidal habitat and communities is minimised.

Management should minimise the removal of species through unregulated bait digging and shellfish gathering which can lead to damage to, or a loss of, communities and habitat.

Management should aim to maintain good water and sediment quality whilst the sediment budget within the estuarine or coastal system should not be restricted by anthropogenic influences.

Coastal saltmarsh

Saltmarsh is an important habitat for wildlife. Saltmarsh generally forms in the upper parts of intertidal mudflats, usually in more sheltered coastal locations. The vegetation typically shows a succession from lower marsh communities to upper marsh communities, depending upon the extent of tidal inundation. Saltmarshes provide valuable habitat for invertebrates and birds and act as nursery sites for several fish species. Environment and Heritage Service would encourage the maintenance and enhancement of the saltmarsh through the conservation of all of the component vegetation communities and their associated native plants and animals. These include important invertebrate communities.

Coastal processes are complex and the management of saltmarshes should take into account the need to maintain or restore, where necessary, the natural processes of sediment movement and the dynamics of saltmarsh succession.

Many of the more sensitive saltmarsh species can be lost through intensive management treatments such as fertiliser and herbicide application.

Where saltmarshes are managed, this is usually by grazing; it helps to provide a variety of different habitats which is particularly important for wintering bird species. If grazing ceases on these sites, there may be a loss of botanical diversity as rank grasses become dominant. However, not all saltmarshes require active management to retain their conservation interest, particularly where there has not been a history of grazing.

Specific objectives include:

On sites that have traditionally been grazed, Environment and Heritage Service would encourage the continuation of this practice. However, overgrazing should be avoided as it may result in a reduction in species diversity and cause poaching. Where there has not been a history of grazing, the saltmarsh should normally be left to maintain itself, as grazing-sensitive species are likely to be present.

Due to its position, coastal erosion can be particularly damaging to saltmarsh. Where possible, Environment and Heritage Service would encourage management which favours the natural processes of sediment movement and the dynamics of saltmarsh succession.

Maintain the diversity and quality of the saltmarsh by ensuring that there is no application of fertiliser, slurry or herbicide.

Intertidal Rock

Rocky shores are an important habitat for wildlife. The littoral zone is composed of a variety of different habitats and communities, including rock pools, bedrock ledges and platforms, gullies, crevices and boulder fields. A diverse range of seaweeds and marine animals are associated with these habitats and most are specially adapted to periods of immersion. Environment and Heritage Service would seek to retain the diversity of intertidal rock communities through the conservation of its associated native plants and animals.

Active management of rocky shores is usually minimal as these are naturally occurring habitats dominated by tidal processes and wave exposure. It is important that good water and sediment quality is maintained. Environment and Heritage Service would seek to maintain the coastline in as natural a state as possible.

Direct damage to rocky habitats can be caused by activities such as dredging and construction. In addition, anthropogenic structures may have an impact by altering the wave regime and may also restrict the sediment budget within the coastal system.

Specific objectives include:

Environment and Heritage Service would encourage the sympathetic use of the habitat to ensure that disturbance and physical damage to the intertidal rock is minimized.

Environment and Heritage Service would encourage the maintainence of good water quality through the control of pollution as this may affect reef communities, particularly due to increased turbidity (which may reduce algal communities) or siltation (which may smother animal communities).

Environment and Heritage Service would discourage the unregulated removal of species through bait digging, shellfish gathering and seaweed harvesting which can lead to damage to, or a loss of, coastal communities and habitat.

Environment and Heritage Service would encourage management which favours the natural processes of sediment movement.

Environment and Heritage Service would encourage sustainable fishing practices and, where appropriate, the development of non disturbance zones.

Maritime grasslands and heaths

Maritime grasslands and heaths are important habitats for wildlife. Environment and Heritage Service would encourage the maintenance and enhancement of the grassland and heathland through the conservation of its associated native plants and animals.

Many of the more sensitive species can be quickly lost through intensive management treatments such as fertiliser and herbicide application. However, coastal habitats generally benefit from some management to retain their interest. Although occasional small patches of scrub can be valuable in providing additional habitat niches for birds and invertebrates, in the absence of management, coarse grasses can quickly take over and ultimately woody species may become dominant.

Grazing is the most effective way of controlling the growth of more vigorous species, helping to maintain a diverse sward structure which continues to support species-rich grassland and heath. In the absence of grazing, cutting and removal of the vegetation to create open areas and reduce the dominance of coarse grasses is desirable.

Specific objectives include:

Low intensity grazing has contributed to the conservation and enhancement of the features of interest. Environment and Heritage Service would encourage the continuation of this practice where feasible. Where grazing is not feasible, other management practices such as cutting may be used.

Prevent the loss of more sensitive grassland species through the control of scrub, bracken and rushes. In general this can be achieved through the appropriate grazing regime. In some cases other methods of control, such as cutting, may be required.

Maintain the diversity and quality of the species-rich grassland by encouraging the maintenance of good water quality through the control of pollution and ensuring there is no application of fertiliser, slurry or herbicide to the site.

Where appropriate, encourage the blocking of drains to prevent the grasslands from drying out.

Coastal vegetated shingle

Coastal vegetated shingle is an important habitat for wildlife. It occurs where shingle sediment and natural debris is deposited on the strandline above the high water mark. The deposition of seaweed can be particularly important as it provides nutrients to a habitat that would otherwise be nutrient-poor. Environment and Heritage Service would encourage the maintenance and enhancement of the strandline through the conservation of its associated native plants and animals.

Specific objectives include:

The deposition of natural debris, especially seaweed, onto the shore creates unique conditions for strandline habitats. Where feasible, Environment and Heritage Service would encourage management practices which allow the development of a natural strandline.

Where recreational pressures are significant enough to result in the loss of vegetation cover and prevent recovery, Environment and Heritage Service would encourage the restoration of the vegetation through the sensitive management of access.

Common Seal

The Common Seal, *Phoca vitulina,* is found all around the coastline of Northern Ireland. Haul out areas are required for pupping during June and July and also for resting throughout the year, particularly during the moulting season from July to September. Sheltered inshore bays and estuaries are the preferred haul out areas; the habitat can vary from rocky shores to mudflats and sandbars, usually close to deep

water and good feeding grounds. As a result of this, management should ensure that these areas are maintained and that access to them by seals is not restricted. The Grey Seal, *Halichoerus grypus*, also occurs occasionally. Where seal haul outs occur, Environment and Heritage Service would encourage the maintenance and conservation of the surrounding marine habitat (rocky shore or mudflat and sandbar) to support the seal population.

Specific objectives include:

Environment and Heritage Service would encourage the effective management of activities which could cause disturbance, for example, through the provision of seal refuges, the adoption of good practice by different user groups and through education.

Disturbance around known haul out sites, especially during the pupping season (June to July for the Common Seal and September to November for the Grey Seal), should be minimised. Access by walkers, shellfish gatherers and boats to the vicinity of haul outs during the breeding, pupping and moulting season should be restricted, where possible.

Environment and Heritage Service would seek to maintain the current range of designated haul out sites of common seals (and grey seals where applicable) through establishing a programme of management and monitoring.

Wintering Waterbirds

Strangford Lough (Part 2) ASSI is a wintering site for large numbers of migratory waterbirds. As part of the Strangford Lough system it supports internationally important populations of waterbirds including Light-bellied Brent Goose, Shelduck, Golden Plover, Knot, Bar-tailed Godwit, Redshank and numbers of Little Grebe, Great Crested Grebe, Great Cormorant, Greylag Goose, Wigeon, Teal, Gadwall, Mallard, Pintail, Shoveler, Goldeneye, Red-breasted Merganser, Oystercatcher, Lapwing, Grey Plover, Ringed Plover, Dunlin, Curlew, Turnstone and Coot that are significant in an all-Ireland context.

Geese, ducks and waders are attracted by a rich food supply and secure roost sites. Wildfowl make use of both open water and surrounding open habitats, including coastal saltmarsh, for feeding. Aquatic vegetation and invertebrates are important food sources for many ducks while geese and some ducks, such as Wigeon, obtain a proportion of their food on land. Waders feed predominantly on shellfish and burrowing invertebrates in intertidal mudflats and other wet areas. Accumulations of seaweed along the tideline may also contain significant prey resources for waders. The quality of feeding areas is susceptible to change due to operations undertaken both within and outside the ASSI that may result in pollution or deterioration in water quality or unacceptable levels of disturbance to feeding birds. It is therefore important that damaging practices are minimised around the ASSI.

Secure roost sites, free from disturbance, are essential to allow the birds to conserve energy when food resources are unavailable, as at high tide. Some of these roosts may lie outside the ASSI. Undisturbed roosts are particularly important during severe winter weather. Wildfowl usually roost on open water, while waders tend to use islands or

isolated headlands. The variety of habitats present within the ASSI should be managed in order to safeguard the wintering waterbird population.

Specific objectives include:

As feeding habitats, including beaches, mudflats and shellfish beds, are critical to the birds well-being, Environment and Heritage Service would not wish to see any operations undertaken that would reduce either their area or the food resources they hold for wintering waterbirds.

Environment and Heritage Service would wish to see disturbance minimised around known roost sites, especially those used by birds at high tide and also at frequently used feeding areas.

Breeding Terns

Strangford Lough (Part 2) ASSI supports internationally important numbers of breeding Common, Arctic and Sandwich Terns. These migratory seabirds are present between April and September and feed on fish in inshore waters. Breeding terns are highly susceptible to disturbance and predation and consequently often choose to nest on islands or isolated man-made structures surrounded by water. They are particularly attracted to areas of shingle or broken shells. Environment and Heritage Service would encourage the maintenance or enhancement of habitat or structures used for nesting by terns.

Specific objectives include:

Environment and Heritage Service would encourage the maintenance or enhancement of sites currently used by breeding terns and the creation of potential new sites. Shingle areas should not be allowed to become overgrown. Nest sites can be extended, or new sites created, by provision of a layer of broken shells. Chick survival would be enhanced by creating shelter structures within the breeding sites to provide refuges from aerial predators or inclement weather. Such activities should only be undertaken in consultation with Environment and Heritage Service.

Human disturbance to breeding terns should be minimised by discouraging landing at nesting sites through appropriate signage or creating marked "buffer zones" to prevent close approach by boats and other craft.

Management principles applicable to all habitats throughout the site

Ensure that disturbance to the site and its wildlife is minimised.

Discourage non-native species, especially those that tend to spread at the expense of native wildlife such as common cord-grass.

Maintain the diversity and quality of habitats associated with the main habitats, such as sediment shores, open water, fen and scrub through sensitive

management as open water, in particular, is an important habitat for rare plants.

E Diane Stevenson

E Diane Stevenson
Authorised Officer

Dated the 1st of FEBRUARY 2008

Department of the Environment for Northern Ireland
Strangford Lough (Part 2) Area of Special Scientific Interest

Modified declaration map referred to in
the confirmation dated: 12 April 1989

Site Boundary: The ASSI includes all land and intertidal foreshores down to low water mark on the seaward side of the solid black line and enclosed within the broken black lines over water.

Area of Site: 699ha

Irish Grid Reference: J579497
District Council Areas: Ards & Down

County: Down

Assistant Secretary

Please note : This is a reduction of the original 1:10,000 scale maps. The scale now is approximately 1:35,000. For clarification purposes the boundary line has been strengthened.