An Agency within the
Department of the Environment
for Northern Ireland

ENVIRONMENT
AND HERITAGE
SERVICE

DEPARTMENT OF THE ENVIRONMENT FOR NORTHERN IRELAND

DECLARATION OF AREA OF SPECIAL SCIENTIFIC INTEREST AT OUTER BELFAST LOUGH, COUNTIES ANTRIM AND 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 Council for Nature Conservation and the Countryside and being satisfied that the area delineated and described on the attached map (the area) is of special scientific interest by reason of the flora, fauna and geological features and accordingly needs to be specially protected, hereby declares the area to be an area of special scientific interest to be known as the 'Outer Belfast Lough area of special scientific interest'.

Belfast Lough is a structurally defined feature, possibly marking the continuation of the major Southern Uplands Fault from Scotland into Ireland.

The oldest rocks in the area are Ordovician in age, some 440-460 million years old (M.y.). They are sandstone, shale and mudstone grade sedimentary rocks with a few occurrences of spilite, agglomerate and ash. The outcrop from Horse Rock to Grey Point is of national significance representing a classic association of pillow lava, black mudstone and greywacke. The black mudstones, in particular, contain fossil graptolites. At Grey Point, an unusual infilled erosion channel can be found.

Carboniferous rocks, some 335 - 340 M.y., occur on the shore near Cultra. These have been of considerable interest since the earliest days of Irish geology. Forming the greater part of the Holywood Group, they consist of a series of sandstones and other sedimentary rocks. Many thin evaporite replacement beds are also present in the upper sections. The lower parts are sparse in fossils, mainly plant debris, suggesting a near-shore, shallow water environment. The upper series developed in brackish tidal flats as indicated by desiccation cracks, original evaporites and the presence of algal mounds known as stromatolites. The commonest fossil remains are plant fragments, the bivalve Modiolus latus, ostracods, Serpula and Spirorbis worm tubes and fish fragments.

The faulted block of Permian rocks, some 240 M.y., is the best exposure of material from this period in Ireland. It consists of a breccia, a fragmented rock type, overlain by Magnesian Limestone and Upper Marls. These Upper Permian rocks formed in the ancient Bakevellia Sea of which Cultra formed a marginal part. They are fossiliferous, principally with gastropod and bivalve remains, especially Bakevellia binneyi. The occurrence of the fossil brachiopod

Horridonia horrida was used to determine ages for the Permian rocks of Ireland and western Britain.

Tertiary basaltic and dolerite intrusions are abundant in the Triassic rocks, particularly along the northern shore between Greenisland and Carrickfergus. Massive dykes are evident at Carrickfergus, forming, in part, the foundation of Carrickfergus Castle.

Semi-natural vegetation is now confined to a narrow shoreline strip which is very fragmented, particularly along the inner reaches of the lough. The main concentration of botanical interest is found along the indented rocky shoreline of the south-eastern shore. Here, sheltered bays and inlets contain small pockets of beach-head saltmarsh. Shores with harder rocks support vegetation typical of maritime cliff ledges, generally giving way to maritime grassland and, in a few locations, maritime heath. Although restricted in both area and type, the maritime vegetation contains some notable plants such as Spring Squill Scilla verna and Ray's Knotgrass Polygonum oxyspermum.

Birds from Inner Belfast Lough regularly use Outer Belfast Lough for feeding, and the populations of the two areas are closely linked. However, the area is significant in its own right and holds nationally important numbers of several species of overwintering birds. The flock of Great Crested Grebe Podiceps cristatus has grown in recent years and is now the largest wintering concentration in the British Isles, with over 1000 birds present.

Of the species which are nationally significant, achieving at least 1% of the Irish wintering population, the most numerous is the Oystercatcher Haematopus ostralegus, with over 1500 birds. Although the greatest numbers are found on the extensive beds of Common Mussel Mytilus edulis, the species is widespread on all shore types, as is the Redshank Tringa totanus, with over 300 birds. Other species are more selective in their requirements: Ringed Plover Charadrius hiaticula (regularly exceeding 100 birds) tend to be found on sandy beaches, while Turnstone Arenaria interpres, with a population of over 600, prefer rocky or pebble shores.

Notable wintering populations of Purple Sandpiper Calidris maritima and Eider Somateria mollissima are also supported on the rock shores and open sea respectively.

Seals are a notable feature within the site with a number of significant 'haul-outs' utilised by both Grey Seal Halichoerus grypus and Common Seal Phoca vitulina.

SCHEDULE

The following operations and activities appear to the Department to be likely to damage the flora, fauna and geological interest of the area:

1. Any activity or operation which involves the damage or disturbance by any means of the surface and subsurface of the land, including reclamation and extraction of minerals, including sand, shingle, shell, gravel and peat.

2. The introduction of grazing.

3. The introduction of cutting.

4. The application of manure, slurry or artificial fertiliser.

5. The application of herbicides, fungicides or other chemicals deployed to kill any form of wild plant, other than plants listed as being noxious in the Noxious Weeds (Northern Ireland) Order 1977.

6. The storage or dumping, spreading or discharge of any material not specified under paragraph 5 above.

7. The destruction, displacement, removal or cutting of any plant, seed or plant remains, other than plants listed as noxious in the Noxious Weeds (Northern Ireland) Order 1977.

8. The release into the area of any animal or plant. 'Animal' includes birds, mammals, fish, reptiles, amphibians and invertebrates; 'Plant' includes seed, fruit or spore.

9. Burning.

10. Afforestation and planting.

11. Construction, removal or disturbance of any permanent or temporary structure including building, engineering or other operations.

12. Alteration of natural or man-made features, the clearance of boulders or large stones and grading of rock faces.

13. Sampling of rocks, minerals, fossils or any other material forming a part of the site, undertaken in a manner likely to damage the scientific interest.

14. Operations or activities which would affect wetlands (including marsh, streams and open water), eg

    (i) change in the methods or frequency of routine drainage maintenance;

    (ii) modification to the structure of any watercourse;

    (iii) change in the management of bank-side vegetation.

15. The killing or taking of any animal in a manner likely to affect the continued existence of the species within the area except as provided for under the terms of the Wildlife (Northern Ireland) Order 1985, eg

    (i) collection of marine organisms such as shellfish;

    (ii) bait digging in intertidal areas.

16. The following activities undertaken in a manner likely to damage or disturb the wildlife of the area:

(i) educational activities;

(ii) research activities;

(iii) recreational activities;

(iv) exercising of animals.

17. Changes in game, waterfowl or fisheries management or fishing or hunting practices.

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

Sealed with the Official Seal of the
Department of the Environment for
Northern Ireland on 20 November 1996

Robert C Martin

ROBERT C MARTIN
Chief Executive

FOOTNOTES

(a) Please note that consent by the Department to any of the operations or activities listed in the Schedule does not constitute planning permission. Where required, planning permission must be applied for in the usual manner to the Department under Part IV of the Planning (Northern Ireland) Order 1991. Operations or activities covered by planning permission are not normally covered in the list of Notifiable Operations.

(b) Also note that many of the operations and activities listed in the Schedule are capable of being carried out either on a large scale or in a very small way. While it is impossible to define exactly what is "large" and what is "small", the Department would intend to approach each case in a common sense and practical way. It is very unlikely that small scale operations would give rise for concern and if this was the case the Department would normally give consent, particularly if there is a long history of the operation being undertaken in that precise location.