

## DEPARTMENT OF THE ENVIRONMENT FOR NORTHERN IRELAND

DECLARATION OF AREA OF SPECIAL SCIENTIFIC INTEREST AT LOUGH NEAGH,  
COUNTIES ANTRIM, ARMAGH, DOWN, LONDONDERRY AND TYRONE. 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 and physiographical 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 'Lough Neagh area of special scientific interest'.

The area is of special scientific interest because it is a large shallow eutrophic lake occupying a downwarp in Tertiary basalt with its associated physical, chemical and biological characteristics. More specifically it is of interest for: wintering and breeding birds; its wetland vegetation, which includes a large number of rare plant species; and the presence of a number of rare invertebrate and fish species.

The site includes the whole water body of Lough Neagh, the largest lake in the British Isles at 38,500 ha, and a marginal fringe of land totalling 39,800 ha together. The shallow, eutrophic Lough is supplied by seven main tributary rivers and is drained by the Lower Bann.

The Lough lies within a downwarped block of Tertiary basalt which is at least 35 million years old and has a number of associated geological and physiographical features of scientific interest e.g. the Lough Neagh Clays, evidence of Holocene water-level changes, and contemporary phenomena including mobile sand bars.

Most of the shoreline and shallow margin of the Lough is exposed to wave action and has a rocky or sandy character. The submerged and floating aquatic vegetation is confined to sheltered bays and inlets and includes very extensive stands of Fennel-leaved Pondweed Potamogeton pectinatus and Slender-leaved Pondweed P. filiformis intermixed with smaller quantities of additional species.

Swamp vegetation generally consists of a mosaic of small stands of Common Spike-rush Eleocharis palustris, Reedmace Typha latifolia, Branched Bur-reed Sparganium erectum, Flowering Rush Butomus umbellatus, Bulrush Scirpus lacustris and Bottle Sedge Carex rostrata. Locally, large stands of Common Reed Phragmites australis have developed.

The tall fen occurring along the water's edge mostly consists of a thin, generally species-poor band of Reed Canary-grass Phalaris arundinacea, Hemlock Water Dropwort Oenanthe crocata, Yellow Loosestrife Lysimachia vulgaris and Purple Loosestrife Lythrum salicaria, but in places there are a number of more uncommon plant species.

Some of the lough shore is fringed by a fragmented, swampy woodland of Alder Alnus glutinosa and Willow Salix spp. related to successive lowerings of waterlevels. This woodland is among the best of its type in Northern Ireland. It is extensive and locally contains a diversity of plants including many notable species.

The remainder of the shore is mostly covered by a variety of grassland types ranging from improved and reseeded grassland to species-rich hay meadows, with the most characteristic type being wet marshy grassland with Soft Rush Juncus effusus and Brown Sedge Carex disticha as the most prominent species.

Other interesting vegetation types present include those associated with pockets of cut-over bog, basalt rock outcrops and boulders, and mobile sandy shores.

Exceptional numbers of rare plant and animal species are found in the above habitats in and around the Lough. Over forty rare or local vascular plants have been recorded for the site since 1970, the most notable being Eight-stemmed Waterwort Elatine hydropiper (open water), Marsh Pea Lathyrus palustris (tall fen), Many-seeded Goose-foot Chenopodium polyspermum (lake shore), Large Bittercress Cardamine amara (swampy woodland), Irish Lady's Tresses Orchid Spiranthes romanzoffiana (wet grassland), Buckthorn Franula alnus (swampy woodland), Narrow Smallreed Calamagrostis stricta (wet grassland), Holy Grass Hierochloa odorata (wet grassland) and Elongated Sedge Carex elongata (swampy woodland).

The Lough and its margin also contain an exceptional number of rare or local invertebrates, including aquatic and terrestrial molluscs, a freshwater shrimp Mysis relicta, beetles and hoverflies. Of the rare beetles recorded, two, Stenus palposus and Dyschirus obscurus, have their only known Irish location around the Lough. The Lough also supports twelve species of Dragonfly, a high proportion of the total known to occur in Northern Ireland. These invertebrates are mostly associated with open water, swampy woodland or sandy shorelines.

Fifteen species of fish are found in the Lough, several of which are commercially fished, including large numbers of Eel Anquilla anquilla. Two rare species occur, the River Lamprey Lampetra fluviatilis, and the Pollan Coregonus autumnalis, the former with a limited Irish distribution, the latter with a European distribution confined to Ireland.

Internationally important numbers of waterfowl regularly winter on the Lough, with the peak number averaging over 66,800 birds in the five years between 1986/87 and 1990/91. Species which qualify as internationally important (with their percentages of the North-west European flyway population) are Whooper Swan Cygnus cygnus (1.6%); Pochard Aythya ferina (8.4%); Tufted Duck Aythya fuligula (2.5%); Scaup Aythya marila (1.1%) and Goldeneye Bucephala clangula (3.8%). Other significant species are (with their percentages of the Irish population) Great Crested Grebe Podiceps cristatus (32.8%); Cormorant Phalacrocorax carbo (6.7%); Mute Swan Cygnus olor (17.3%); Bewick's Swan Cygnus columbianus (3.7%); Shelduck Tadorna tadorna (2.4%); Gadwall Anas strepera (14.6%); Teal Anas crecca (1.8%); Mallard Anas platyrhynchos (6.9%); and Coot Fulica atra (16.5%). These birds are mostly associated with open water, shallow lough shore and wet grassland.

In the summer the Lough supports important numbers of breeding birds, including the largest number of Black-headed Gull Larus ridibundus and the largest concentration of Great Crested Grebe in Ireland; the largest number of Redshank Tringa totanus in Northern Ireland, as well as significant numbers of Snipe Gallinago gallinago, Common Tern Sterna hirundo, Tufted Duck, Pochard, Gadwall and Shoveler Anas clypeata. These birds are mainly concentrated on islands, fens and swamps and fen meadows.

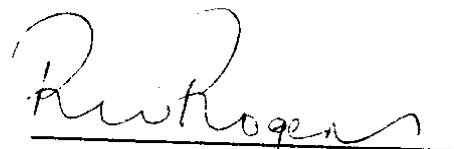
## SCHEDULE

The following operations and activities appear to the Department to be likely to damage the flora, fauna, geological and physiographical features 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 ploughing, rotovating, harrowing, reclamation and extraction of minerals, including sand, gravel, peat, lignite and diatomite.
2. Any change in the present annual pattern and intensity of grazing, including any change in the type of livestock used or in supplementary feeding practice.
3. Any change in the established method or frequency of rolling, mowing or cutting.
4. Any change in the annual pattern of 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 (NI) Order 1977.
6. The storage or dumping, spreading or discharge of any material not specified under (4) or (5).
7. The destruction, displacement, removal or cutting of any plant, seed or plant remains, other than for
  - (i) plants listed as noxious in the Noxious Weeds (NI) Order 1977;
  - (ii) normal cutting or mowing regimes for which a consent is not required under (3).
8. The release into the area of any animal (other than in connection with normal grazing practice) or plant. 'Animal' includes birds, mammals, fish, reptiles, amphibians and invertebrates; 'Plant' includes seed, fruit or spore.
9. Burning.
10. Changes in tree or woodland management, including afforestation, planting, clearing, selective felling and coppicing.
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. Operations or activities which would affect wetlands (including marsh, fen, bog, rivers, streams and open water) e.g.
  - (i) change in the methods or frequency of routine drainage maintenance;

- (ii) modification in the structure of any watercourse;
  - (iii) lowering of the water table, permanently or temporarily;
  - (iv) change in the management of bank-side vegetation.
14. 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.
15. 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.
16. Changes in game, waterfowl or fisheries management or fishing or hunting practices.

SEALED WITH THE OFFICIAL SEAL OF THE  
DEPARTMENT OF THE ENVIRONMENT FOR  
NORTHERN IRELAND ON 30 November, 1992.



R W ROGERS  
ASSISTANT SECRETARY

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FOOTNOTES

- (a) Please note the consent by the Department to any of the above operations or activities does not constitute planning permission. Where required, planning permission must be applied for in the usual manner to the Department under Part IC of the Planning (NI) Order 1972. 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 above 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 give consent, particularly if there is a long history of the operation being undertaken in that precise location.