



## DEPARTMENT OF THE ENVIRONMENT FOR NORTHERN IRELAND

### DECLARATION OF AREA OF SPECIAL SCIENTIFIC INTEREST AT CARRICKARADE, COUNTY ANTRIM. 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, 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 'Carrickarade Area of Special Scientific Interest'.

The island of Carrickarade and the adjoining mainland represent a section through an explosive volcano which is unique in its extent in the whole of the Tertiary igneous province of Northeast Ireland. It is an important feature in the interpretation of the earliest stages of Tertiary volcanic activity in the region, which occurred some 60 million years ago.

The vent is composed of agglomerate consisting of blocks of basalt up to 3m in diameter embedded in a matrix of volcanic ash with occasional fragments of Lias clay and Chalk. Carious weathering on parts of the agglomerate outcrop suggests a derivation from finely comminuted limestone.

The agglomerate is intruded by a number of veins and irregular masses of dolerite which appear to be part of a later phase of the eruptive history when magmatism had largely replaced explosive activity. Basaltic and chalky tuffs also occur here but are probably related to other eruptive centres.

The initial phase of eruption in Antrim featured explosive activity, as exemplified by Carrickarade. These events were probably phreatomagmatic, a consequence of magma moving into water-saturated sediments at shallow depths, probably as sill intrusions.

The limestone cliffs contain one exceptional raised sea cave. Free water movement along the cliff section has led to the development of Speleothems within the cave. These include stalagmites, stalactites and a pillar. This is the only known example of calcite cave decoration within the Ulster White Limestone in Northern Ireland, and is probably a unique feature within the British Isles Cretaceous.

Carrickarade and the adjoining area exhibit a range of typical coastal habitats. The cliff top element is dominated by grasses, most notably Yorkshire-fog *Holcus lanatus* and Cock's-foot

Dactylis glomerata. Other prominent components include Thrift Armeria maritima, Common Knapweed Centaurea nigra. Common Bird's-foot-trefoil Lotus corniculatus, Sea Campion Silene uniflora and frequent Spring Squill Scilla verna.

Rock type is a major influence on the distribution of some communities, with heath comprising Heather Calluna vulgaris, Bell Heather Erica cinerea and limited Crowberry Empetrum nigrum associated with the more acid volcanics. The chalk supports abundant Kidney Vetch Anthyllis vulneraria. Associated with those more base rich solid is a population of the rare Thyme Broomrape Orobanche alba which is dependent on Thyme Thymus vulgaris.

The cliffs themselves support many of the species present in the cliff top communities. Additional notable species include Tree-mallow Lavatera arborea and Scots Lovage Ligusticum scoticum. Caves at the base of the cliffs support the Sea Spleenwort Asplenium marinum.

The area has a number of important animal species present. Invertebrates include the Wrinkled Snail Candidula intersecta and the Heath Snail Helicella itala, both very localised within Northern Ireland. Breeding birds are a conspicuous element of the site with regular records of twite Carduelis flavirostris, a rare breeding species in Northern Ireland. Small populations of seabirds include Kittiwake Rissa tridactyla, Guillemot Uria aalge and Razorbill Alca torda.

#### 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 rock, sand, gravel and peat.
2. 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.
3. The storage or dumping, spreading or discharge of any material.
4. The destruction, displacement, removal or cutting of any plant, seed or plant remains, other than for:
  - i) plants listed as being noxious in the Noxious Weeds (Northern Ireland) Order 1977;
  - ii) normal cutting or mowing regimes.
5. 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.
6. Burning.

7. Changes in tree or woodland management, including afforestation.
8. Construction, removal or disturbance of any permanent or temporary structure including building, engineering or other operations.
9. Alteration of natural or man-made features, the clearance of boulders or stones and grading of rock faces.
10. Operations or activities which would affect the wetlands (including rivers and streams), eg
  - i) change in the methods or frequency of routine drainage maintenance;
  - ii) modification to the structure of any watercourse;
  - iii) changes on field drainage or boundary field drainage.
11. 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.
12. The following activities undertaken in a manner likely to damage the interest of the area:
  - i) Educational activities;
  - ii) Research activities;
  - iii) Recreational activities;
  - iv) Exercising of animals.
13. Changes in game, waterfowl, or fisheries management or fishing or hunting practices.
14. 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.
15. Use of vehicles or craft likely to damage the interest of the area.

Sealed with the Official Seal of the  
Department of the Environment for  
Northern Ireland on 30 October 1996



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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 IV of the Planning (NI) 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 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.