



An Agency within the Department of the

**Environment**

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**ENVIRONMENT  
AND HERITAGE  
SERVICE**

## **DEPARTMENT OF THE ENVIRONMENT**

### **DECLARATION OF AREA OF SPECIAL SCIENTIFIC INTEREST AT AGHNADARRAGH, COUNTY ANTRIM. ARTICLE 28 OF THE ENVIRONMENT (NORTHERN IRELAND) ORDER 2002.**

The Department of the Environment (the Department), having consulted the Council for Nature Conservation and the Countryside and being satisfied that the area delineated on the attached map (the area) is of special scientific interest by reason of its 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 'Aghnadarragh Area of Special Scientific Interest'.

The excavation of a pit for the purposes of extraction of Tertiary lignite, some 30 million years old, revealed the most complete stratigraphy known from the Midlandian Cold Stage (c.120,000 - 10,000 years ago) in Ireland. Sections comprise a stratigraphy recording an early Midlandian ice advance, a long period of warmer interstadial and cool conditions, followed by the Late Midlandian glaciation. The non-glacial episodes represent a wide range of shallow water depositional settings, recorded by detrital peats, and a gravely horizon rich in the remains of the Mammoth *Mammuthus primigenius*, these being the oldest known remains in Ireland of this species. The horizon containing the mammoth remains is the type locality for the Aghnadarragh Interstadial. Recently, remains of Musk Ox, *Ovibos moschatus*, have been identified from the site, being the first record of this species from Ireland.

The site is of importance in the context of the British Isles as its stratigraphic complexity and length of record is unique. It is the only site documenting climatic oscillations during the last (Midlandian) cold stage, while the range of date determinations provide a framework for Late Midlandian events in Ireland. Further, the palaeobotanical record is unique in Ireland and provides a yardstick for comparisons with critical sites in England, as well as highlighting both the arguments surrounding reworking of earlier biological detritus and the difficulty of non-sequence recognition. The site provides the only profile of any length which contains evidence for large scale resolution of climatic cycles and ice sheet reconstruction from this sector of north-west Europe. A major result has been the recognition of ice sheet growth early in the last Cold Stage and extension of the growing idea of rapid environmental change within this period. Finally, the anticlinal structure in the lignite provides the only known evidence in Northern Ireland for bedrock deformation by intense glaciotectionic action.

## **SCHEDULE**

**The following operations and activities appear to the Department to be likely to damage the 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 land reclamation and extraction of minerals, including rock, sand, gravel and peat.
2. The storage or dumping, spreading or discharge of any material other than for normal agricultural purposes.
3. Construction, removal or disturbance of any permanent or temporary structure including building, engineering or other operations.
4. Alteration of natural or man-made features, the clearance of boulders or stones and grading of rock or other faces.
5. Operations or activities which would affect wetlands (including rivers, streams and open water), e.g.
  - i) change in the methods or frequency of routine drainage maintenance;
  - ii) modification to the structure of any watercourse;
  - iii) lowering or raising of the water-table, permanently or temporarily;
  - iv) change in the management of bank-side vegetation;
  - v) changes in field drainage or boundary field drainage.
6. The following activities undertaken in a manner likely to damage the interest of the area:
  - i) educational activities;
  - ii) research activities;
  - iii) recreational activities.
7. 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.
8. Use of vehicles or craft likely to damage the geological features of the area.

## 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.
- (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.