



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 TIEVESHILLY, 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 Council for Nature Conservation and the Countryside and being satisfied that the area described and delineated on the attached map (the area) is of special scientific interest by reason of the 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 'Tievehilly Area of Special Scientific Interest'.

The rocks at Tievehilly contain a rich graptolite fauna within shales of Ordovician and Silurian age. The graptolitic shales are historically important for their contribution to resolving Upper Ordovician and Lower Silurian stratigraphy in this area. The site is of international importance as it contributes significantly to an understanding of the processes involved in the formation of the British and Irish Caledonide rock series, and their timing. The overlying succession of Tara Sandstones and Kearney Siltstones is also apparently unique.

Graptolites, the only fossil remains found here, are extinct colonial marine animals and have been collected from Tievehilly for at least 150 years. The site has made a significant contribution to the study of this fossil group.

Although the rock sequence is complicated by frequent faulting and overturning of beds, the succession is reasonably clear. The rocks at Tievehilly comprise fossiliferous shales, together with siltstones and mudstones. The range of graptolites in successive beds show that sediment deposition continued from the Upper Ordovician, some 440 million years ago, through to Lower Silurian times, some 430 million years ago. Such dating is important in understanding the staged closure of the Iapetus Ocean.

The shales are interpreted as deep-water sediments deposited in the closing Iapetus Ocean. This ocean disappeared some 410 million years ago. What is now Tievehilly was then on the ocean's northern margin, part of the Laurentian or American crustal plate. The sediments were accreted on the northwestern, Laurentian, shore of the Iapetus Ocean during plate collision and ocean closure.

## **SCHEDULE**

**The following operations and activities appear to the Department to be likely to damage the geological 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 reclamation and extraction of minerals, including rock, sand and gravel.
2. The storage or dumping, spreading or discharge of any material other than in the course of agricultural operations.
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 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) changes in the level 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.

Sealed with the Official Seal of the  
Department of the Environment for  
Northern Ireland on 28 OCTOBER 1999



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**DR J S FAULKNER**  
Assistant Secretary

#### 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.