

# DRUMBALLY HILL

## A SPECIAL PLACE...



*Drumbally Hill ASSI*

SITES OF BIOLOGICAL AND EARTH SCIENCE IMPORTANCE HAVE BEEN SURVEYED BY NORTHERN IRELAND ENVIRONMENT AGENCY TO ASSESS THEIR SCIENTIFIC INTEREST. THE BEST SITES ARE NOW BEING DECLARED AS AREAS OF SPECIAL SCIENTIFIC INTEREST (ASSIs). IN DOING SO, WE AIM TO SAFEGUARD THESE IMPORTANT SITES FOR THE BENEFIT OF PRESENT AND FUTURE GENERATIONS.

Drumbally Hill is a special place because of its Earth Science interest. The area provides excellent access to an important exposure of limestone.

This exposure is what is left of a large quarry that once existed at the site. There are very few exposures of this rock left in the area. The limestone dates from the Carboniferous period of Earth history and is around 320 million years old.

Originally, the rock formed as a lime mud on the floor of a shallow, tropical sea. It was near a shoreline, however, that brought quartz sand grains and pebbles into the mud. Storms had the effect of removing some of the lighter mud particles, leaving a larger amount of sand grains than is usual for many limestones.



*Part of a fossil shellfish can be seen in the sample.*

The exposure contains some fossil shell fish and crinoid fragments, also known as 'sea-lilies'. These help to recreate the ancient environment and to place the rock in the right time period.

Limestones are usually quite pale in colour. At Drumbally Hill, however, many fresh rock surfaces show a red-brown colour. This shows the rock has been changed since it was deposited and it has likely been groundwater moving through once overlying rocks that caused this change in colour.

Correct management is essential for special places like Drumbally Hill. For example, unchecked vegetation growth may obscure and prevent access to the features. Continued sensitive management will ensure the survival of the area's Earth Science features. Northern Ireland Environment Agency is keen to work closely with landowners to maintain and enhance Drumbally Hill ASSI.



*The rock is discoloured from groundwater movement.*

## DEPARTMENT OF THE ENVIRONMENT

### DECLARATION OF AREA OF SPECIAL SCIENTIFIC INTEREST AT DRUMBALLY HILL, COUNTY LONDONDERRY. 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 described and 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 'Drumbally Hill Area of Special Scientific Interest'.

The area is of special scientific interest because of its' important geology. The exposures are found on the south east side of Drumbally Hill. The site is what remains of a once more extensive quarry that exposes limestone typical of the Desertmartin Limestone Formation of the Armagh Group.

The rocks are from the late Asbian stage of the Carboniferous and are some 320 million years old. Outcrop of the Desertmartin Limestone Formation is rare and the site also represents the northernmost occurrence of Asbian limestones in Northern Ireland.

Up to 3m of limestones are exposed in the remaining quarry face, found near a stream in a wooded area. The strata are inclined at 15° to the southeast and exhibit undulose bedding of variable thickness and are shale-free. The limestones vary in colour from pale fawn-grey to medium grey but are usually stained pale purple-red on most surfaces, probably as a result of downward percolation of later Mesozoic groundwater. Medium to coarse grainstones dominate the sequence here, with thin layers of very sandy limestone and occasional quartz pebbles are scattered in the rock.

A sparse, often fragmented macrofauna of crinoid ossicles and large productid brachiopods, in particular *Linoprotonia hemisphaerica*, is recorded from the limestones but corals are absent from this and most other quarry sections in the Desertmartin area.

The rock would have originally been deposited as soft sediment in a warm, shallow marine environment. The presence of significant amounts of quartz sand and pebbles in the Limestone indicates a proximal, or near shore, depositional environment. Furthermore, this environment must have experienced turbulent or reasonably high energy conditions, which had the effect of winnowing out the lighter carbonate muds leaving the heavier quartz grains behind.



## 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 reclamation and extraction of minerals or rock.
2. The storage or dumping, spreading or discharge of any material.
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) modification to the structure of any watercourse.
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 interest 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. 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.

## **DRUMBALLY HILL**

### **Views About Management**

#### **The Environment (Northern Ireland) Order 2002 Article 28(2)**

#### **A statement of the Department's views about the management of Drumbally Hill Area of Special Scientific Interest ("the ASSI")**

This statement represents the views of the Department about the management of the ASSI for nature conservation. This statement sets out, in principle, our views on how the area's special conservation interest can be conserved and enhanced. The Department has a duty to notify the owners and occupiers of the ASSI of its views about the management of the land.

Not all of the management principles will be equally appropriate to all parts of the ASSI and there may be other management activities, additional to our current views, which can be beneficial to the conservation and enhancement of the features of interest. It is also very important to recognise that management may need to change with time.

The management views set out below do not constitute consent for any operation or activity. The written consent of the Department is still required before carrying out any operation or activity likely to damage the features of special interest (see the Schedule for a list of these operations and activities). The Department welcomes consultation with owners, occupiers and users of the ASSI to ensure that the management of this area maintains and enhances the features of interest, and to ensure that all necessary prior consents are obtained.

### **MANAGEMENT PRINCIPLES**

The earth science interest at Drumbally Hill occurs as the remaining rock exposures of a once much more extensive abandoned quarry. The Department would encourage the maintenance of the ASSI and its earth science interest.

#### **The geological series**

Provided no damaging activities, as set out in the Schedule (page 2), are undertaken without consent, the needs of owners, occupiers and the Department can be met. Earth science features such as those at Drumbally Hill may require occasional management intervention in order to maintain access to, and exposure of, the geology. This could include selective removal of vegetation or any major build up of loose rock.

Specific objectives include:

Maintain the geological series in an undamaged state.

Maintain access to the geological series.

The Official Seal of the  
Department of the Environment  
hereunto affixed is authenticated  
by

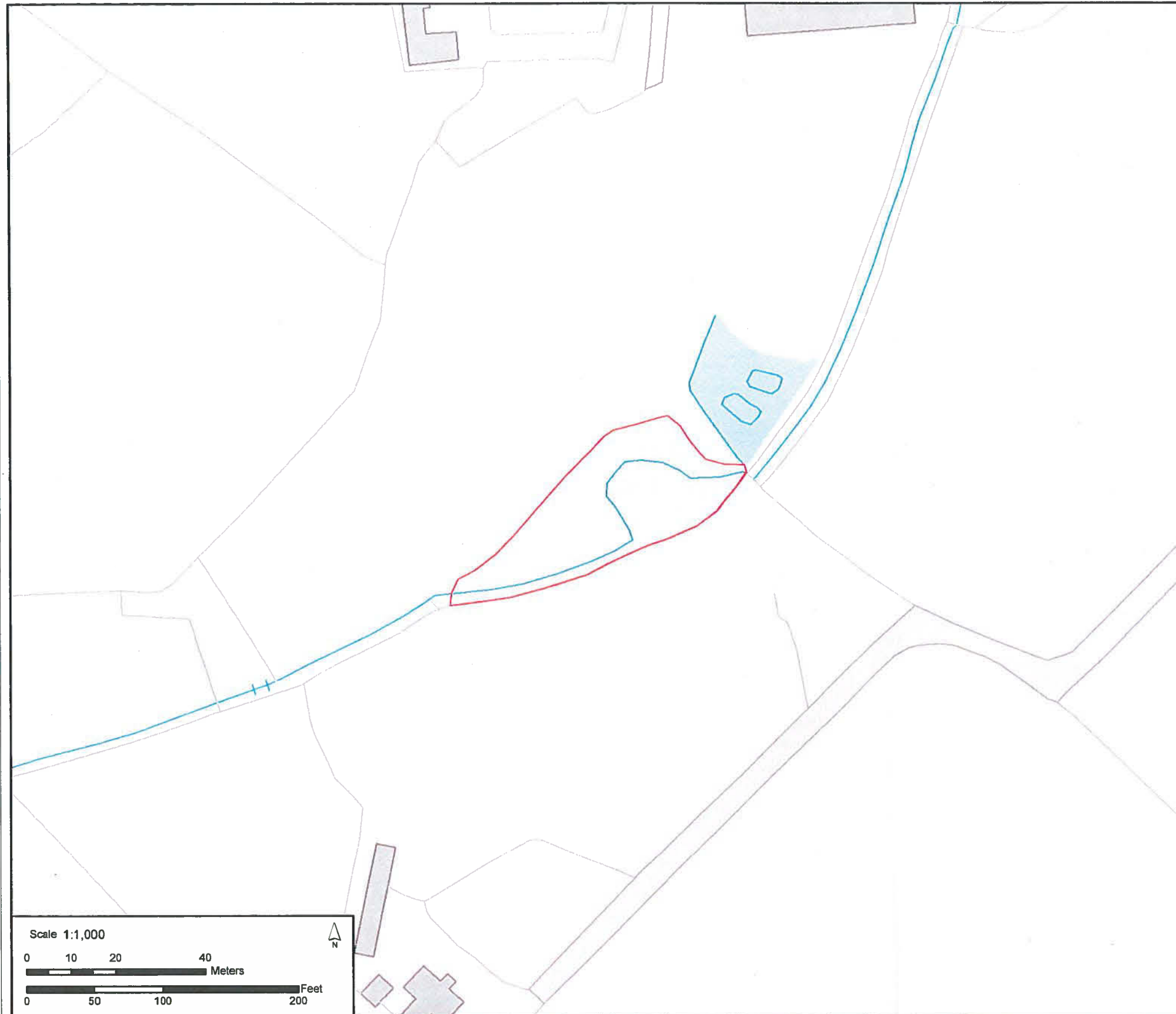
[Signed by]

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**G R SEYMOUR**  
Senior Officer of the  
Department of the Environment

Dated the 24<sup>th</sup> of September 2010

# DRUMBALLY HILL ASSI



## DRUMBALLY HILL AREA OF SPECIAL SCIENTIFIC INTEREST

Map referred to in the Declaration dated: 24<sup>th</sup> September 2010

**SITE BOUNDARY:** The Area of Special Scientific Interest (ASSI) includes all the lands highlighted within the solid coloured lines.

**AREA OF SITE:** 0.12 hectares

**OS MAPS** 1:50,000: Sheet No. 13  
1:10,000: Sheet No. 78

**IRISH GRID REFERENCE:** H844 934

**COUNCIL AREA:** MAGHERAFELT DISTRICT COUNCIL

**COUNTY:** LONDONDERRY

*G. Seymour*  
G R SEYMOUR  
SENIOR OFFICER OF THE  
DEPARTMENT OF THE ENVIRONMENT

