

LOUGHERMORE MOUNTAIN

A SPECIAL PLACE...



Loughermore Mountain 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.

Loughermore Mountain is a special place because of its Earth Science interest. The area provides access to important geological features.

The exposures are found in the faces and spoil of an old quarry. The rocks date from the Precambrian period of Earth history and are around 600 million years old.

Originally, the rock was sand and mud deposited on the floor of an ancient sea. The location was probably between the shallow shore and the deep sea.

Earth movements closed this sea during a mountain building event and deformed the rocks by heat and pressure. The mountain range formed is known as the Caledonides and was comparable in size to the modern Himalayas.

Evidence of stresses and strains of this event are found in structures seen at Loughermore. Some of the quartz (sand) grains show evidence of stretching. The structures help geologists work out the processes involved during the mountain building.



Stretched quartz grains.

The rocks at the site are actually part of a great fold that is a major structure in the Sperrin Mountains.

Correct management is essential for special places like Loughermore Mountain. For example, if vegetation were to grow unchecked, it may reduce access to and visibility of the exposures. Continued sensitive management will ensure the survival of the area's geological features. Northern Ireland Environment Agency is keen to work closely with landowners to maintain and enhance Loughermore Mountain ASSI.

DEPARTMENT OF THE ENVIRONMENT

DECLARATION OF AREA OF SPECIAL SCIENTIFIC INTEREST AT LOUGHERMORE MOUNTAIN, 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 'Loughermore Mountain Area of Special Scientific Interest'.

The area is of special scientific interest because of its important geology. The rocks are from the Claudy Formation of the Southern Highland Group originating in the Precambrian, approximately 600 million years old. The rock was originally soft sediment laid down within an ancient marine basin that was then deformed and metamorphosed during the Caledonian Orogeny, a mountain building event. Loughermore Mountain exposes a typical lithology of the Claudy Formation and preserves structures that help interpret the sequence of events during the orogeny.

The rocks are predominantly psammitic and range from medium to pebble grain size, quartz and feldspar being the most common clast types. The grains are typically well-rounded and characteristic blue quartz grains are present throughout the site. Grain size variations indicate the presence of graded bedding demonstrating that the succession is right way-up, and younging towards north.

The regional metamorphic fabric (S_2) is observed at the site, dipping at about $30^{\circ}N$ with some variation arising from changes in lithology. Over much of the outcrop, S_2 is broadly parallel to a composite fabric defined by coplanar bedding (S_0 – the original bedding) and an earlier cleavage (S_1). There is some divergence of these fabrics and on the western face of the quarry, a series of thinly bedded, medium-grained psammites is cut by well developed S_2 , which clearly crenulates an earlier composite S_0/S_1 fabric.

Structurally, the site lies on the northern, upwards facing limb of the Sperrin Overfold, the major structure in the Sperrin Mountains. The Claudy Formation outcrop at Loughermore Mountain occurs in the core of the Loughermore Refold and is surrounded by outcrops of the younger Ballykelly Formation.

The Claudy Formation consists of, primarily, quartz-wackes. Evidence indicates that it is a transitional facies between the proximal, more stable, shallow water environments characteristic of the underlying Dungiven Formation, and the distal turbidite facies of the succeeding Ballykelly Formation. Although the lithology suggests the rocks originated as poorly sorted clastic sediment, the environment of deposition cannot be confirmed as the original sedimentary structures have been subject to regional deformation and low grade (Greenschist Facies) metamorphosis.



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 extraction of minerals and rock.
2. The storage or dumping, spreading or discharge of any material.
3. Changes in tree or woodland management, including afforestation and planting.
4. Construction, removal or disturbance of any permanent or temporary structure including building, engineering or other operations.
5. Alteration of natural or man-made features, the clearance of boulders or stones and grading of rock faces.
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.

LOUGHERMORE MOUNTAIN

Views About Management The Environment (Northern Ireland) Order 2002 Article 28(2)

A statement of The Department's views about the management of Loughermore Mountain 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 on page 2 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 Loughermore Mountain occurs as rock exposures in a disused quarry pit. 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 Loughermore Mountain may require occasional management intervention in order to maintain access to, and exposure of, the geology. This could include, for example, selective removal of vegetation.

Specific objectives include:

Maintain the geological series in an undamaged state.

Maintain access to the geological series.

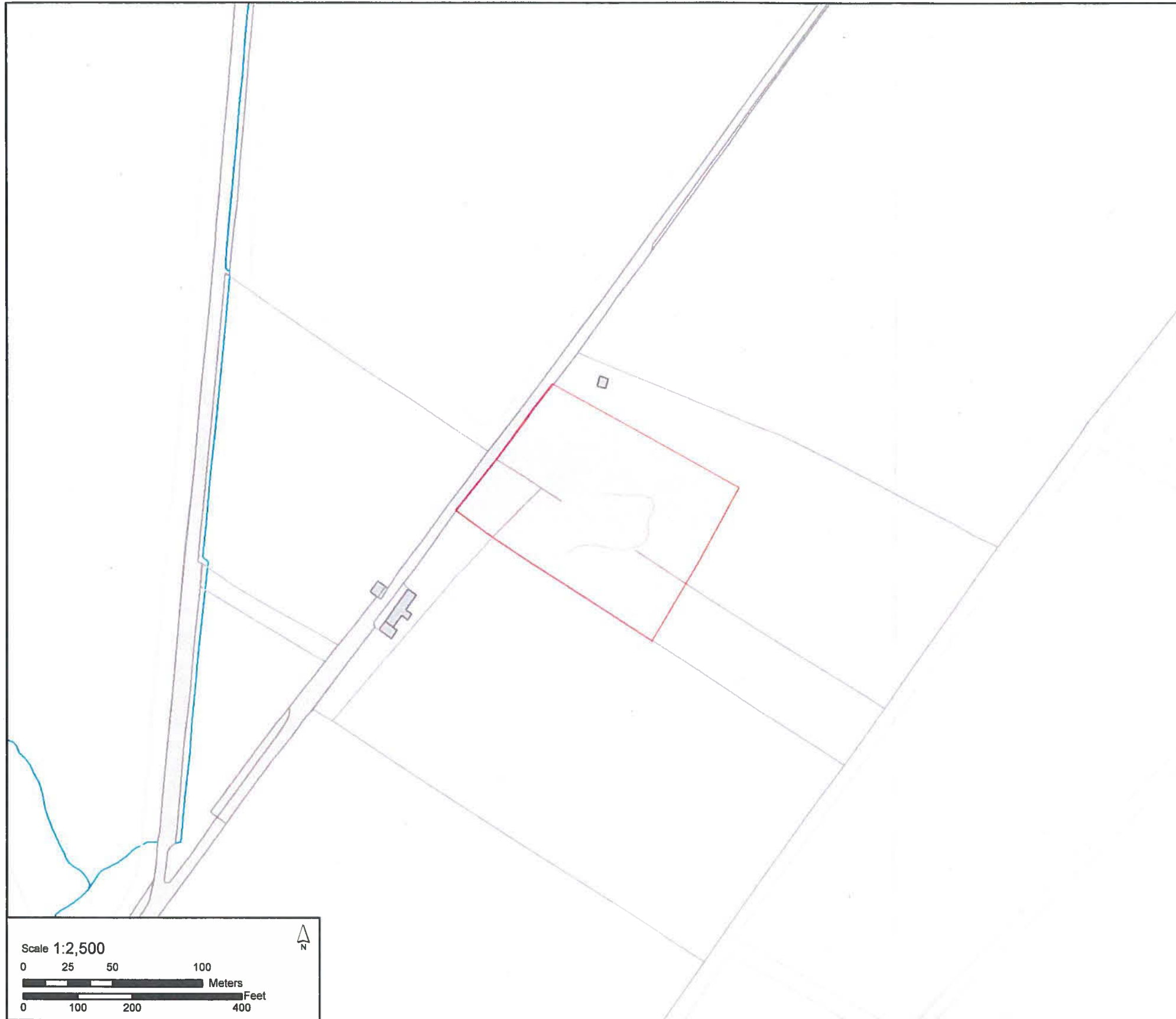
The Official Seal of the
Department of the Environment
hereunto affixed is authenticated
by

G.R. Seymour.

G R SEYMOUR
Senior Officer of the
Department of the Environment

Dated the 30th of September 2010

LOUGHERMORE MOUNTAIN ASSI



LOUGHERMORE MOUNTAIN AREA OF SPECIAL SCIENTIFIC INTEREST

Map referred to in the Declaration dated: *30th September 2010*

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

AREA OF SITE: 1.18 hectares

OS MAPS 1:50,000: Sheet No. 7
1:10,000: Sheet No. 38

IRISH GRID REFERENCE: C606 150

COUNCIL AREA: LIMAVADY BOROUGH COUNCIL

COUNTY: LONDONDERRY

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

