



Purpose





This is a public statement prepared by SNH for owners and occupiers of the SSSI. It outlines the reasons it is designated as an SSSI and provides guidance on how its special natural features should be conserved or enhanced. This Statement does not affect or form part of the statutory notification and does not remove the need to apply for consent for operations requiring consent.

We welcome your views on this statement. This statement is available in Gaelic on request.

Description of the site

Allt Molach Site of Special Scientific Interest (SSSI) lies in Glen More on the Isle of Mull. The Allt Molach River and its tributaries provide a traverse across a series of volcanic rock intrusions known as “ring-dykes.” The river section is of international significance because it contains the first and best known example of a “family of ring-dykes” to be recognised. The ring dykes were produced as a result of volcanic activity during the Tertiary geological period, 60 million years ago.

The rock intrusions were formed within the Earth’s crust beneath a volcano which occupied the area of central Mull. At some stage during volcanic activity, the volcano collapsed downward into the magma chamber beneath it. As it collapsed enormous cracks formed around the volcano. This formed a circular depression on the land surface called a caldera. The margins of the caldera into which the volcano collapsed represent a circular zone of weakness in the rock. As the mass of crust sank downwards magma within the magma chamber was squeezed or intruded into the cracks. This magma did not reach the surface, instead it cooled and solidified in the cracks around the volcano forming what is now called the Glen More Ring Dyke. Through time additional ring-dykes formed as the block of crust supporting the volcano continued to sink downwards. Thirteen ring-dykes are exposed in the Allt Molach River. In association with the ring-dykes, cone shaped sheet-like bodies of magma were squeezed into the cracks above the magma chamber. These structures are known as cone-sheets.

Thin cone-sheet within a quartz gabbro ring-dyke.	The junction between quartz gabbro and granophyre ring-dykes in the Allt Molach.
	

Natural features of Allt Molach SSSI
Name of natural feature
Tertiary Igneous

Current condition of the natural features

Igneous petrology

The current condition of the Tertiary Igneous geology of Allt Molach is **favourable**. During a Site Condition Monitoring visit to the site in May 2006, the interest features were assessed as being in good condition with respect to their extent, composition and structure; and also their visibility and ease of access.

Past and present management

Historically the site has been mainly used for rough grazing, an activity that continues to the present day. This has had no negative impact on the Earth Science interest. In 1989, parts of the slopes of Allt Molach were planted with forestry, although provision was made to leave selected zones of the Allt Molach river and its tributaries unplanted. This careful planting meant that all the important geological features remain visible and accessible.

Objectives for Management (and key factors influencing the condition of natural features)

We wish to work with the owner to protect and maintain the site and where necessary enhance its features of special interest. SNH aims to carry out site survey, monitoring and research as appropriate to increase our knowledge and understanding of the site and its natural features.

1. To maintain the physical condition of the geological features.

This involves making sure the extent, composition and structure of the features is favourable. The current grazing management practice on the site has had no negative impact on the physical attributes of the geological features within Allt Molach river and its tributaries and therefore should be allowed to continue.

2. To maintain visibility and access to the geological features.

Regeneration from the existing broad-leaved woodland could potentially occur on the banks of the Allt Molach river thereby obscuring visibility and access to the geological exposures. To prevent this from happening grazing should continue and natural regeneration should continue to be monitored. Consideration should be given to the need for intervention to selectively clear any intrusive natural regeneration if the growth is so vigorous as to obscure the visibility, and to prevent access to the geological interest feature.

Date last reviewed: 19 February 2008