Scottish Natural Heritage

MOLLINSBURN ROAD CUTTING
SITE OF SPECIAL SCIENTIFIC INTEREST

SITE MANAGEMENT STATEMENT

Site code: 1177

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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.

Description of the site

The site is located at Mollinsburn, approximately 5km southwest of central Cumbernauld, and consists of four discrete sections intersected by roads and a track. The site comprises well-exposed igneous (volcanic) rocks of Permo-Carboniferous age, approximately 295 million years old, formed right at the end of the Carboniferous geological period, just before the start of the Permian period.

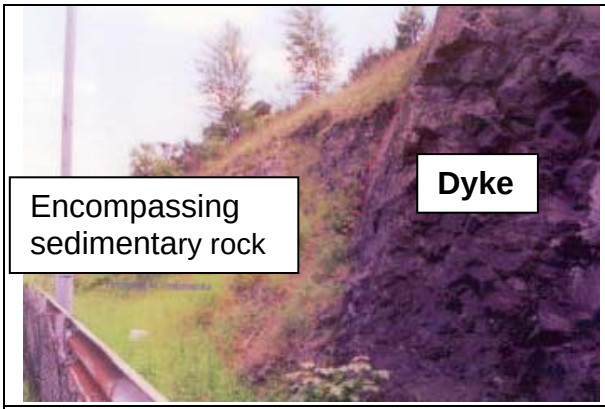
The site shows part of the Lenzie-Torphichen dyke. A dyke is an intrusive mass of igneous rock. It formed when molten rock (magma) was forced up through the Earth's crust, and rather than reaching the surface to form lava, it was instead 'intruded' or forced into a fissure within pre-existing rock where it cooled and crystallised. At that time the crustal foundations of Scotland were rather unstable and volcanic activity was widespread. The dyke has been revealed through millions of years of erosion that has removed the overlying rock.

The Lenzie-Torphichen dyke can be traced for 40 kilometres across southern Scotland and has an average breadth of approximately 40 metres. It is one of a suite of similar dykes from this time period which extend in a belt, over 200km wide, trending east-west across southern Scotland and northern England. The dyke at Mollinsburn, like the other dykes in the suite, is a dolerite dyke, which means that the igneous rocks are composed of basalt. In addition, the Lenzie-Torphichen dyke is chemically similar to the large sill that underlies southern Scotland, suggesting that it was probably sourced from it.

The site is nationally significant for providing the best available exposures through the Lenzie-Torphichen dyke, which improves our understanding of the volcanic activity that took place in Scotland at the end of the Carboniferous and start of the Permian.

The Carboniferous-Permian Igneous feature is in an unfavourable, declining condition. The extent, composition and structure has been maintained, however the visibility of the exposures and their accessibility for study have deteriorated. Vegetation (specifically rank vegetation, ruderals and thorny scrub), and particularly amenity planting (conifers) is encroaching within 10 metres of the key rock exposures, and grasses and heather have become established on the exposures. In some parts of the site the exposures are completely obscured, however currently it would be relatively easy to remove the vegetation that obstructs visibility. In addition, waste soil and building material piled up against the faces in the small quarries that occur at the western portion of the site affect both visibility and access.

Natural features of Mollinsburn Road Cutting SSSI	**Condition of feature** (date monitored)
Carboniferous-Permian Igneous	Unfavourable, declining (March 2008)



The contact between the Lenzie-Torphichen Dyke and surrounding sediments.

A view from the edge of the M80 looking west onto the central section of the site and Mollin Craigs.

Past and present management

Two disused quarries occur within the site, which have been planted with rhododendron and ornamental conifers at Mollin Craigs. The A80 trunk road, which passes through the site, is currently (in spring 2009) being upgraded, which was consented under the Roads (Scotland) Act 1984. The road upgrade will have a direct impact on the geological feature, resulting in the loss of some of the rock exposure, however this will be compensated by works to remove the vegetation and waste material that is hindering visibility and access.

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

We wish to work with the owner and/or occupier to protect the site and to maintain 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 extent, composition and structure of the key rock exposures** by ensuring protection from damaging impacts, in particular road improvements.

   Improvements to the roads that intersect the site should ideally be undertaken in such a way as to ensure that new exposure is gained through excavation of currently buried 'sub-crop', to replace any exposure lost by cutting or through being obscured; the key objective being to maximise the amount of rock exposed over as much of the site as possible. In addition, any cut rock faces should be left in a stable condition.

2. **To improve the visibility and accessibility of the rock exposures** by removal of the vegetation (particularly non-native species) which has encroached within 10m of the exposures using hand-tools, removal of the waste soil and building material that has been dumped next to the rock faces, and by the erection of stiles to enable easier access over fences.

   Grasses and heather are currently obscuring the visibility of some of the exposures, and rhododendron and conifers are hampering access. The encroachment of this vegetation needs to be dealt with before it is allowed to spread any further, when it will become less manageable and cause further deterioration of the natural feature. Scrub clearance, and in addition waste removal, is required in the western sections of the site, and rhododendron and large conifers need to be removed at Mollins Craigs (the native trees growing on the Craigs can be retained as they are having a minimum impact on access and visibility).

   If rock faces are cut to allow for road improvement works, they should be left uncovered; in particular the use of steel mesh should be avoided, which would obscure visibility of the feature.

Other factors affecting the natural features of the site

Tipping: There should be no tipping of any waste within the site, particularly on or against the rock exposure. Waste materials including construction, demolition and road waste, could obscure the rock exposures and present a hazard to access.

Front page photograph: view of the site, taken in 2001.

Date last reviewed: 23 April 2009