COUNTY: SHROPSHIRE SITE NAME: LONG MYND

DISTRICT: South Shropshire, Shrewsbury & Atcham SITE REF: 15WHA

Status: Site of Special Scientific Interest (SSSI) notified under Section 28 of the Wildlife and Countryside Act 1981 as amended

Local Planning Authority: SHROPSHIRE COUNTY COUNCIL, South Shropshire District Council, Shrewsbury & Atcham Borough Council

National Grid Reference: SO 420950 Area: 2637.6 (ha.) 6517.5 (ac.)

Ordnance Survey Sheet 1:50,000: 137 1:10,000: SO 49 SW, NW, NE, SE, SO 48 NW, SO 38 NE, SO 39 SE

Date Notified (Under 1949 Act): 1953 Date of Last Revision: 1963

Date Notified (Under 1981 Act): 1990 Date of Last Revision: –

Other Information:
Site boundary alteration (reduction). Part of the site is owned by the National Trust. Part of the site is common land.

Description and Reasons for Notification:
The Long Mynd is an extensive upland plateau lying to the west of Church Stretton in south Shropshire. The site supports a varied upland vegetation, dominated by heathland, which overlies sedimentary deposits of the late Precambrian Period. The Long Mynd is situated on the south-eastern margin of upland habitat in Britain and as such occupies an important transitional position in the range of upland communities between sites in the south west and those in the north of the country. As a result, the vegetation includes a mix of species which are typically northern or southern in their distribution. The western side of the plateau is terminated by a steep scarp slope and contrasts markedly with the eastern side which is dissected by a series of steep-sided stream valleys. These features are of particular interest for their variety of mires and flushes which provide habitat for a diverse flora including several uncommon species. In addition to the botanical interest, this site is also of ornithological and geological importance.

Biology
An extensive tract of dry heathland, dominated by heather *Calluna vulgaris*, covers the main part of the plateau. Traditional burning and more recent cutting of the heathland for grouse management has produced a mosaic of different ages in which associated heathland plants such as bilberry *Vaccinium myrtillus*, wavy hair-grass *Deschampsia flexuosa*, heath bedstraw *Galium saxatile* and tormentil *Potentilla erecta* occur in variable abundance. At a number of locations this type of management has produced a transient community which is characterised by the predominance of both heather and wavy hair-grass. This distinctive type of heath is restricted to the Midlands and northern England and reaches its southern limit here on the Long Mynd.

In general the plateau is well drained with wetter areas restricted to a scatter of small depressions and to the gently sloping ground at Wildmoor. In these poorly drained situations rushes *Juncus effusus* and *J. squarrosus* are scattered amongst the heather with common cottongrass *Eriophorum angustifolium* and hare's-tail cottongrass *E. vaginatum* becoming locally frequent in the wettest places. Mosses are especially abundant in these areas with the bog mosses *Sphagnum* spp., *Dicranum scoparium*, *Hypnum cupressiforme* and *Polytrichum commune* often forming continuous carpets beneath the heather.

The abundance of heather declines towards the margins of the plateau giving way to a bilberry dominated heath with an increasing cover of mosses. This community is

particularly well developed on the cool moist slopes of the western escarpment and on north facing slopes of the eastern valley spurs. Dispersed amongst the bilberry are isolated clumps of tightly grazed heather formerly abundant but now in decline as a result of intensive sheep grazing.

Acid grasslands and grass heath mosaics are widespread but are especially well represented on the lower scarp slopes and on the north eastern hills of Plush, Nover's and Bodbury. The grasslands here are generally species poor due to a combination of acidic soils and intensive grazing. On freely draining sites, fescues *Festuca* spp., bents *Agrostis* spp. and wavy hair-grass predominate, often invaded by bracken *Pteridium aquilinum*.

Typical herbs include heath bedstraw and tormentil with mountain pansy *Viola lutea*, a species with a local and declining distribution in Shropshire, occurring at one locality. On poorly drained soils the grassland grades into a rush pasture characterised by soft rush *Juncus effusus*, sedges *Carex demissa* and *C. nigra* with marsh bedstraw *Galium palustre* and greater bird's-foot-trefoil *Lotus uliginosus*. This plant community is typical of western uplands in Britain and occurs on the Long Mynd towards the edge of its range.

A series of valleys draining eastwards show a sequence of vegetation which is common to all. The upper slopes, particularly those facing north, have a bilberry or a grass heath whilst the lower slopes are mostly covered by acid grassland and bracken. On steeper south facing slopes a short grazed open grassland occurs with a patchy scrub, including gorse *Ulex europeus* and *U. gallii* and hawthorn *Crataegus monogyna*, developing on lower slopes. Small areas of the valley side have a herb rich grassland associated with shallow soils and more base rich conditions around rocky outcrops. In these areas, wild thyme *Thymus praecox* is locally abundant with species such as mouse-ear hawkweed *Hieracium pilosella*, harebell *Campanula rotundifolia* and of particular note, the uncommon rock stonecrop *Sedum forsteranum*. In addition, the dry rock outcrops support a varied lichen flora. A range of species typical of hard siliceous rocks are present including *Rhizocarpon geographicum*, *Lecanora badia*, *Umbilicaria polyrhiza* and the rare *Parmelia disjuncta*.

One of the most interesting features of the site is the variety of mire and flush communities. These occur widely on the hill associated with spring lines and streams. The Long Mynd remains one of the most important localities in Shropshire for these increasingly uncommon habitats. Botanically they are the most diverse of all vegetation types on the SSSI and many contain locally rare or uncommon plants. They include nutrient poor mires found mainly around the heads of valleys on thin peaty soils in which soft rush and the mosses *Sphagnum* spp. and *Aulocomnium palustre* form a major component of the vegetation. Also present are a number of locally uncommon peatland plants such as bog asphodel *Narthecium ossifragum*, round-leaved sundew *Drosera rotundifolia* and marsh lousewort *Pedicularis palustris*. More nutrient rich conditions are associated with spring head rills in which blinks *Montia fontana* and round-leaved crowfoot *Ranunculus omiophyllus* are dominant. This community is associated with southern British uplands and reaches its northern limit on upland sites in England here on the Long Mynd. A very different type of plant community dominated by a mixture of sedges and mosses occurs on continuously flushed ground below the spring heads and on sloping valley bottoms beside the streams. Sedges such as yellow-sedge *Carex demissa*, carnation sedge *C. panicea* and common sedge *C. nigra* are most common in these situations with a wide range of mosses in particular *Drepanocladus revolvens*. Associated higher plants include marsh pennywort *Hydrocotyle vulgaris*, bog pimpernel *Anagallis tenella* and a number of locally uncommon species such as marsh St. John's-wort *Hypericum elodes* and common butterwort *Pinguicula vulgaris*. The mire and flush communities are also important for invertebrates, particularly beetles *Coleoptera* and craneflies *Tipulidae*, a number of which are regionally scarce.

The steep-sided rocky stream banks also provide a suitable habitat for an interesting range of damp-loving plants. These include a number of distinctive and locally rare species such

as lemon-scented fern *Oreopteris limbosperma* and Wilson’s filmy-fern *Hymenophyllum wilsonii*, the latter found here at its most easterly British location.

The site also includes several shallow peaty pools which have characteristic plants such as bottle sedge *Carex rostrata*, common spike-rush *Eleocharis palustris*, bog pondweed *Potamogeton polygonifolius* and bogbean *Meyanthes trifoliata*. The invertebrate fauna of these pools includes ten species of dragonfly and damselfly of which two, *Sympetrum danae* and *Cordulegaster boltonii*, are scarce in the Midlands.

The Long Mynd is the most important site in Shropshire for upland birds. Species which regularly breed here include merlin *Falco columbarius*, red grouse *Lagopus lagopus*, ring ouzel *Turdus torquatus*, wheatear *Oenanthe oenanthe*, curlew *Numensis arquata* and snipe *Gallinago gallinago*. In addition, the site is also important for dipper *Cinclus cinclus* and grey wagtail *Motacilla cinerea* which breed in the numerous stream valleys.

Geology
The Long Mynd site forms the type locality for the Longmyndian succession of south Shropshire of probable Precambrian age. It is by far the thickest, most stratigraphically complete and most important exposure in Britain of ancient, non-marine, sediments deposited to the south east of the former Iapetus Ocean. All the type localities for the seven group subdivisions in Longmyndian stratigraphy are included within the site. The valley-sides of Ashes Hollow and Devil’s Mouth expose the most instructive sections through the upper Burway Group and overlying lower Synalds Group of the 'Stretton Series'. The sandstones and siltstones of the Burway Group give way above to the shallow-marine Cardingmill Grit, followed by a transition into the fluviatile beds of the lower Synalds Group. Ashes Hollow Quarry exposes shales and siltstones of the lower Synalds Group. The beds contain enigmatic impression fossils of possible medusoid origin, and 'worm' trails. They show some apparent affinity with fossils described from late Precambrian strata in northernmost Russia and, as such, are of importance in the study of the early evolution of metazoan life. This locality provides a rare opportunity to study traces of Precambrian life forms. At The Pike are the most instructive sections through the fluviatile sediments of the Synalds Group. The rocks consist of red shales and thin sandstones, probably representing flood-plain deposits. The Jonathan’s Hollow – Long Batch area exposes the most instructive sections through the tuffaceous beds of the 'Batch Volcanics' of the Synalds Group. The locality is important because its extensive outcrops facilitate a study of the sedimentary/volcanic interactions which took place during Longmyndian times. Lightspout Hollow contains the most instructive sections through the Lightspout Group of the 'Stretton Series'. The rocks consist of sandstones and siltstones, including probable channel sandstones, and record the further emergence of the area, as a result of sediments infilling the basin. The sediments present are typical of shallower water than those of the underlying Synalds Group. Hawkham Hollow contains exposures of the upper 'Stretton Series' Portway Group and the supposedly overlying, unconformable, 'Wentnor Series' of the Longmyndian. This is the only area where the relationship of the two major divisions of the Longmyndian can be studied. The rocks of the Long Mynd are also of exceptional historical interest, having been described by several of the great names in 19th Century geological research, and have remained the subject of important work during this Century. Evidence from this site has contributed greatly to the recent realisation that many of the so-called 'Precambrian' rocks of southern Britain could in fact be of Cambrian age.