

**County:** Cumbria/Lancashire **Site Name:** **Leck Beck Head  
Catchment Area**

**District:** South Lakeland/Lancaster

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

**Local Planning Authority:** South Lakeland District Council  
Lancaster City Council

**National Grid Reference:** SD 669797 **Area:** 236.9 (ha) 585.4 (ac)  
Cumbria  
466.2 (ha) 1152.0 (ac)  
Lancashire  
703.1 (ha) 1737.4 (ac)  
Total

**Ordnance Survey Sheet 1:50 000** 97, 98 **1:10 000** SD 68 SE  
SD 67 NE

**Date Notified (Under 1949 Act):** 1959 + 1960 **Date of Last Revision:** 1979  
(Lancashire)

**Date Notified (Under 1981 Act):** 1986 **Date of Last Revision:** 1986

**Other Information:**

1. The boundary of the former Lancaster Hole–Easegill System SSSI has been modified by a partial deletion and by an extension (which includes the former Lost John’s Cave SSSI) to form this revised site.

**Reasons for Notification:**

Leck Beck Head Catchment Area is located some 5 km due east of Kirkby Lonsdale, encompassing part of Casterton, Leck and Ireby Fells above the Lune Valley and straddling the Cumbria–Lancashire boundary. The site extends from Aygill in the north for some 6 km southwards to the North Yorkshire county boundary on Ireby Fell and comprises an area which is not only of outstanding geological importance but which also includes areas of major biological interest. The geological interest of this site may be defined as follows:

This site comprises several long cave systems and their catchment areas and includes Easegill Caverns, the longest cave system in Britain (and 11<sup>th</sup> largest in the world). Surface water passes underground via 14 major sinkholes, and then travels through the cave system by way of a complex network of passages and fissures to converge at a single major spring (or resurgence) at Leck Beck Head. The caves exhibit a wide range of features of interest, including a number of passages which lie well above the present water table. These formed during successive stages (Devensian, Ipswichian and probably Hoxnian) of the Ice Ages and provide important evidence of landform development during that period. The scale and variety of the caves makes this a most important site for the study of surface and underground landform development over a long period of the recent past.

Most of the biological interest of the site is concentrated around various physical features associated with the underlying Carboniferous Limestone, such as pavements, cliffs, potholes and gorges. Easegill is one of the principal localities and represents a feature unique in South Cumbria and Lancashire. It comprises a series of steep limestone cliffs and associated scree which support a wide range of plants, including several rare and uncommon species such as rigid buckler-fern *Dryopteris villarii*, limestone polypody *Gymnocarpium robertianum* and mossy saxifrage *Saxifraga hypnoides*. Downstream, the gill develops into a deep, wooded gorge which harbours a rich calcareous woodland flora including such species as wood forget-me-not, hairy rock-cress, wall lettuce, sanicle, whitlowgrass and eleven species of fern.

This diversity is augmented by an area of wet neutral grassland adjoining the gill which contains meadow grasses, meadow foxtail and hairy oat-grass and a variety of herbaceous species, including common spotted-orchid, ragged robin, hemlock water dropwort, bugle and water mint and which contrasts with the species-poor acidic grassland adjacent to it.

In contrast to Easegill, Aygill is on more acid rock and has a characteristic flora including, for example, wood rush *Luzula sylvatica*, hard fern *Blechnum spicant* and beech fern *Phegopteris connectilis*. In total, fifteen species of fern have been recorded from the gills, providing an indication of their high level of flora diversity.

Elsewhere, the various outcrops of limestone, in the form of pavement, low ridges, scree and scattered stone, support a wide range of characteristic limestone plants – including several colonies of rigid buckler-fern, limestone polypody and baneberry *Actaea spicata* – a rare plant of local distribution on limestone in northern England – while the steep, rocky sides of some of the numerous potholes provide ungrazed conditions in which rich, calcareous ‘woodland’ floras have developed. These plant communities provide an interesting and distinctive contrast to the acidic vegetation which is typical of the surrounding area.

Of additional botanical interest is a series of base-rich flushes, localised in a small area on the slopes beneath Gragareth along the approximate junction of Yoredale grit and carboniferous limestone. These features are essentially bryophyte-dominated springs which develop outwards into base-rich flushes supporting a typical high-level flush community with several notable species such as lesser clubmoss *Selaginella selaginoides* – the best surviving location in Lancashire, pale forget-me-not *Myosotis stolonifera* – a species which is nationally scarce, and scurvy-grass *Cochlearia pyrenaica* (of very localised distribution in Britain). These features represent the best examples of upland base-rich flush communities in Lancashire.