

GALWAY - COUNTY GEOLOGICAL SITE REPORT

NAME OF SITE	Lough Lurleen Bog/Glenamaddy Turlough
Other names used for site	Glen Lough
IGH THEME	IGH1 Karst, IGH7 Quaternary, IGH16 Hydrogeology
TOWNLAND(S)	Glenamaddy, Mountkelly, Barna, Cloondoyle More, Cloondoyle Beg, Ardoslough, Gortnagier East, Kiltullagh, Carrowntober West, Carrowntober East, Ashfield, Cloonlara South, Faartan, Corramaeagh, Cappagh, Derrooghs
NEAREST TOWN/VILLAGE	Glenamaddy
SIX INCH MAP NUMBER	18, 19, 32
ITM CO-ORDINATES	565400E 759500N (centre of bog)
1:50,000 O.S. SHEET No. 39	GS1 BEDROCK 1:100,000 SHEET NO. 12

Outline Site Description

Lough Lurleen Bog/Glenamaddy Turlough comprises a large turlough over 170 hectares in extent, and an expanse of over 1,000 hectares of typical, intact, western raised bog, situated immediately southeast of Glenamaddy.

Geological System/Age and Primary Rock Type

Lough Lurleen Bog/Glenamaddy Turlough is situated within an area dominated by bedrock of Lower Carboniferous limestone. The turlough and bog peat are Quaternary in age, having formed in marshy conditions in the area since deglaciation, and mostly approximately 7,000-10,000 years ago.

Main Geological or Geomorphological Interest

While today a generally flat and open landscape, the locality of Lough Lurleen Bog/Glenamaddy Turlough was covered by bog, marsh, quicksand and ponds thousands of years ago as the bog formed. The site today comprises a high, domed, raised bog that includes both areas of high bog and cutover bog, and a significant proportion of the bog area is relatively intact.

Active raised bog comprises areas of high bog that are wet and actively peat-forming, where the percentage cover of *Sphagnum* bog mosses is high, and where some or all of the following features occur: hummocks, pools, wet flats, *Sphagnum* lawns, flushes and soaks. Degraded raised bog corresponds to those areas of high bog whose hydrology has been adversely affected by peat cutting, drainage and other land use activities, but which are capable of regeneration.

The site contains an area of uncut raised bog, though the majority of this is classified as degraded bog. The surface is rather flat and the surface morphology is similar to blanket bog in places. A large, peat-bottomed, oligotrophic lake occurs in the middle of the bog and this feature is unique in Ireland.

Three rivers flow into the turlough lake (the largest from Lough Lurleen Bog), and a well-defined swallow hole occurs in the northwest corner, through which the turlough empties. The water sinking to the swallow hole has been traced to Lettera Spring, 4 km to the west.

Site Importance – County Geological Site; recommended for Geological NHA

Lough Lurleen Bog/Glenamaddy Turlough has been designated an SAC and pNHA (sitecode 000301), owing to the presence of a very large turlough in close proximity to an expanse of raised bog. As the bog exists due to the geological and hydrogeological process of peat growth, the locality is ranked as a County Geological Site worthy of designation as a Geological NHA owing to the unique karst/peat coupling.

Management/promotion issues

Threats to water quality from nutrient enrichment are an issue at the site, along with peat cutting, drainage and burning, all of which would be detrimental to the bog. Signboards in Glenamaddy Village already detail aspect of the turlough hydrogeology.



An enclosed depression at the northern end of the Glenamaddy Turlough feature, as picked out by low water levels in September 2018.



Part of the area of intact bog in the central portion of the peat expanse.



Glenamaddy Turlough from the south, exposing the area between the lake and the peat bog, September 2018.



Signboard illustrating turlough hydrology and ecology in Glenamaddy Village.

