

WICKLOW - COUNTY GEOLOGICAL SITE REPORT

NAME OF SITE	Lough Nahanagan	
Other names used for site	Lake forms part of 'Turlough Hill'	
IGH THEME	IGH7 Quaternary	
TOWNLAND(S)	Sevenchurches, Brockagh	
NEAREST TOWN/VILLAGE	Laragh	
SIX INCH MAP NUMBER	17	
NATIONAL GRID REFERENCE	707900E 699000N (centre of lake)	
1:50,000 O.S. SHEET NUMBER	56	GSI Bedrock 1:100,000 Sheet No. 16

Outline Site Description

Lough Nahanagan rests within a deep glacial corrie, situated in the central portion of the Wicklow Mountains, 6.3 kilometres west-northwest of Laragh and just south of the Wicklow Gap.

Geological System/Age and Primary Rock Type

The feature was formed during the Quaternary (Ice Age), by glacier ice scouring out a deep, armchair-shaped hollow at the northern edge of Camaderry Mountain.

The majority of the feature therefore comprises ice-scoured bedrock, which is adamellite granite. The granite is part of the Lugnaquilla Pluton which is one of the five plutons that comprise the late-Caledonian (405 Ma) Leinster Granite batholith.

Main Geological or Geomorphological Interest

This corrie has an almost-vertical backwall up to 240m in height. A tarn (glacial lake) floors the feature and the corrie and lake are bounded on their northeastern side by a series of moraines, which have been dissected by a Holocene (post-glacial) river draining the lake.

The moraines comprise well-drained, bouldery material, and the area around and northeast of Lough Nahanagan is littered with large erratic boulders up to 10m across. Many of these erratics weigh several hundred tonnes and bear testament to the power of the ice sheet which transported them. Small moraines sit on top of a very large and impressive moraine feature, which dams the lake. Many of the smallest moraines are drowned by the lake water.

The smallest, underwater moraines were dated to the 'Younger Dryas', which was a cold snap at the end of the last glacial period. This period is therefore termed the Nahanagan Stadial in Ireland. They can be seen when the water levels in the lake are low following pumping to the upper reservoir of the Turlough Hill electricity pumped-storage system which the lake now forms part of.

Much of the granite bedrock around the lake has been moulded by glacier ice, and shows striations, chattermarks, roche moutonnées and whaleback forms.

Site Importance – County Geological Site; recommended for Geological NHA

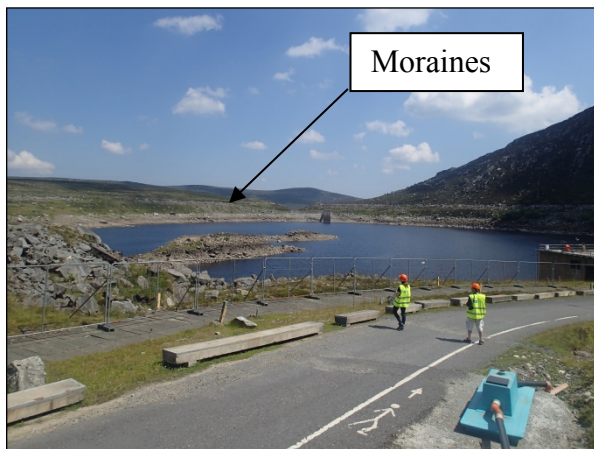
This is a fine example of a corrie, with a bounding moraine feature. The site is already part of the Wicklow Mountains SPA, SAC and proposed NHA (Site Number 002122), as well as being within the National Park. The fact that the post-glacial period in Ireland is called the Nahanagan Stadial, following dating of the moraines at the base of the lake, demonstrates that the feature is significant within many scientific disciplines.

Management/promotion issues

The corrie is now the site of an electricity pumped storage scheme and has an access road leading up to it. Tours were offered of the facility in 2014, when 'Turlough Hill' had its 40th Anniversary; if this tour is continued, even occasionally, some glacial aspects could be incorporated. The site is already part of the Wicklow Mountains SPA, SAC and proposed NHA (Site Number 002122), as well as being within the National Park.



The corrie at Lough Nahanagan, viewed from the Wicklow Gap to the north.



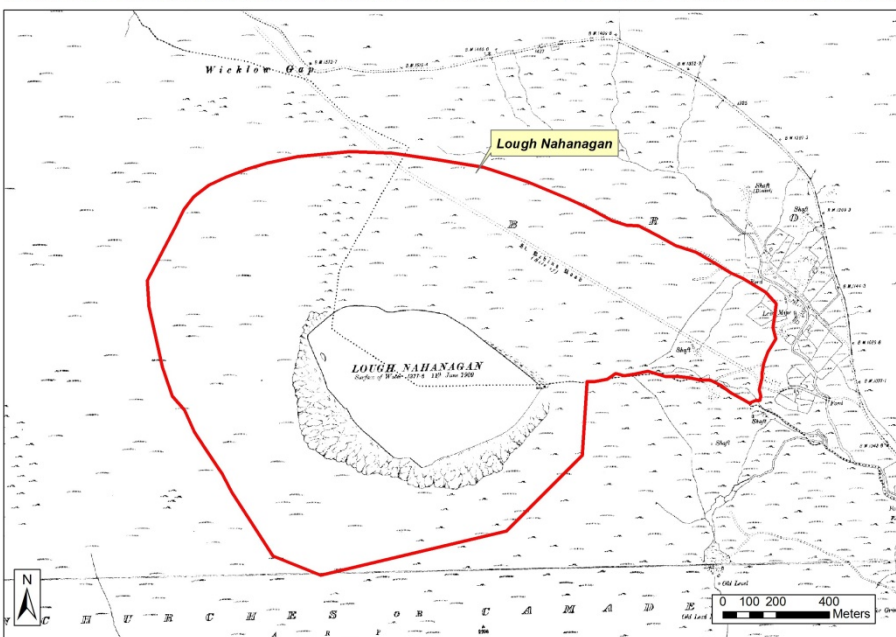
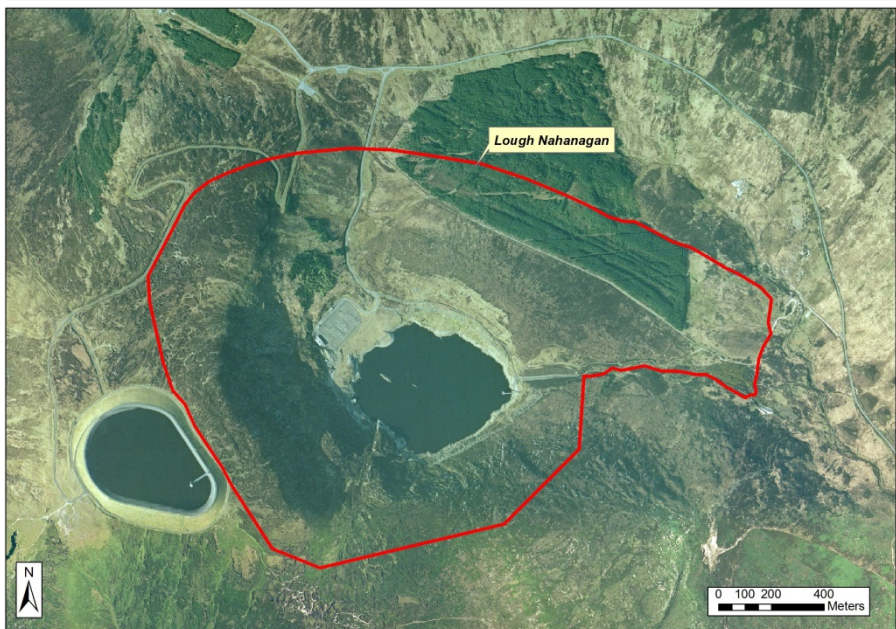
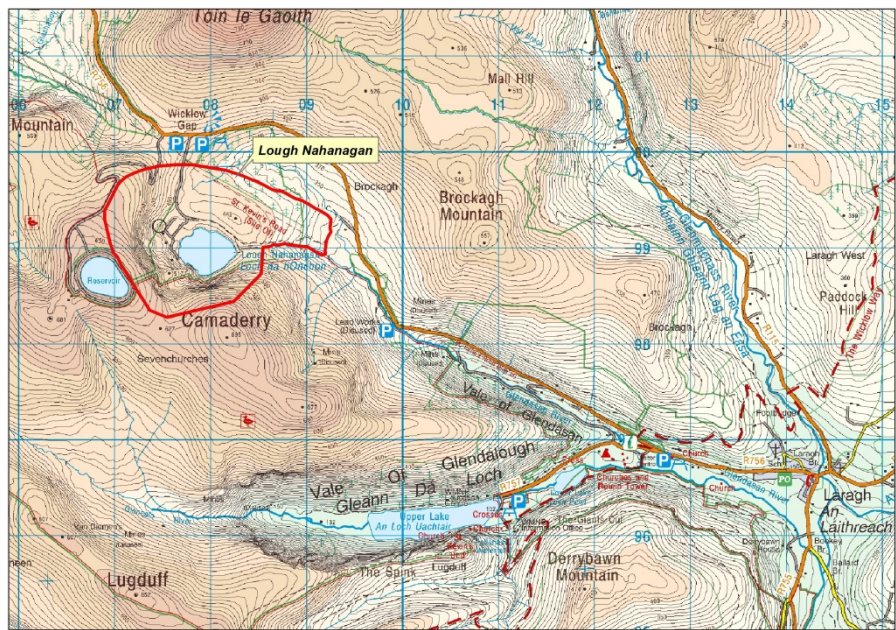
Lough Nahanagan, with the enclosing moraines seen at the far shore.



The 'underwater' bouldery moraine material exposed at the edge of the lake.



Ice-moulded bedrock along the shore of Lough Nahanagan.





Inside the visitor centre display area at Lough Nahanagan, July 2014.