

# WESTMEATH - COUNTY GEOLOGICAL SITE REPORT

<b>NAME OF SITE</b>	<b>Lough Bane and Lough Glass</b>
Other names used for site	Lough Bán (for Lough Bane), Lough Glas (for Lough Glass)
<b>IGH THEME</b>	<b>IGH7 Quaternary, IGH14 Fluvial and Lacustrine Geomorphology</b>
<b>TOWNLAND(S)</b>	<b>Carrick, Glenidan</b>
<b>NEAREST TOWN/VILLAGE</b>	<b>Fore</b>
<b>SIX INCH MAP NUMBER</b>	<b>4</b>
<b>ITM CO-ORDINATES</b>	<b>654550E 771200N (centre of Lough Bane)</b>
<b>1:50,000 O.S. SHEET NUMBER</b>	<b>42 GSI BEDROCK 1:100,000 SHEET NO. 13</b>

## **Outline Site Description**

The Lough Bane and Lough Glass site comprises two lakes set within a deep glacial valley, and impounded by high bedrock cliffs and glacial moraines. A third lake, Lough Glass North, occurs adjacent to the northwest, in County Meath.

## **Geological System/Age and Primary Rock Type**

The lakes are set within an area of 'Derravaragh Chert' bedrock, which is of Lower Carboniferous age. The tills (boulder clays) and sands and gravels which dam the lakes are Quaternary in age, deposited at the end of the last Ice Age.

## **Main Geological or Geomorphological Interest**

The three lakes lie in a wide, deep valley which is a result of glacial ice scouring out bedrock. Cliffs into the chert-dominated bedrock occur on the high hills to the south of Lough Bane, and are the highest in the region, at 20m. Glacial moraines, expressed as low hummocks and some of which are sands and gravels and some of which are tills, dam the lakes.

The lakes occur at the headwaters of the River Deel, with the main outflow at the southeast end of Lough Bane. The outflow is not very substantial and partly overgrown with vegetation. The connection between Lough Glass South and Lough Bane has now been severed and the flow from Lough Glass is diverted to the southwest. The water level has dropped over the years and has exposed soft marl along parts of the shores of each lake.

The surface areas of Lough Bane, and Lough Glass South and North have been reduced significantly between 1837 and 2001, from 1.013 km<sup>2</sup> to 0.844 km<sup>2</sup>. The shore of Lough Bane is now located up to 200 m away from its position on the first 6 inch maps. Estimates of the reduction in storage volume in Lough Bane over this period are: maximum 5,107,400 m<sup>3</sup>; minimum 185,700 m<sup>3</sup>; and median 2,646,600 m<sup>3</sup>. No new surface channels have been constructed among the lakes, however, since 1837. Lough Glass South was, until at least 1908, connected to Lough Bane by a surface outflow channel but this channel is not active today. On the first edition of the 6 inch map a mill is shown on the outflow channel and the level of the lake was then controlled by means of a sluice, which has since been removed.

Lough Bane is now an important water supply source for western County Meath, and a number of karstic and possible karstic landforms have been identified and mapped in the general region around this lake. A swallow hole was recorded on the original 1830's six inch sheet at the south of the lake, but this is not visible today, even at low water levels.

## **Site Importance – County Geological Site**

This fan feature comprises a fine landform sequence with a complex drainage history, and should be listed as a County Geological Site. The Lough Bane and Lough Glass SAC (sitecode 002120) covers the entirety of the site designated here.

## **Management/promotion issues**

The lakes are set in a beautiful valley and signboards outlining the geomorphological history of the lakes, as well as some of the complex drainage history, could be erected at some of the roadsides around them (this would require liaison with Meath County Council).



Lough Bane, viewed from the summit of Carrick Hil to the south.



Then southeastern shoreline of Lough Bane, close to the swallow hole depicted on the 6 in" maps (1800s).



The small pond now cut off from the main body of Lough Bane, with L. Glass South in the background.



The chert cliffs at the southeastern end of Lough Bane.



Reeds growing in marl along the south of Lough Bane.

