

## TIPPERARY - COUNTY GEOLOGICAL SITE REPORT

<b>NAME OF SITE</b>	<b>Newchapel Turlough</b>
Other names used for site	Firgrove Turlough
<b>IGH THEME</b>	<b>IGH1 Karst, IGH16 Hydrogeology</b>
<b>TOWNLAND(S)</b>	<b>Firgrove</b>
<b>NEAREST TOWN/VILLAGE</b>	<b>Coolbaun</b>
<b>SIX INCH MAP NUMBER</b>	<b>9</b>
<b>ITM CO-ORDINATES</b>	<b>585300E 692600N (centre of feature)</b>
<b>1:50,000 O.S. SHEET NUMBER 53</b>	<b>GSI BEDROCK 1:100,000 SHEET NO. 15</b>

### Outline Site Description

This site comprises a small turlough in a flat-bottomed hollow between crag-and-tails, about 2 km east of Coolbaun.

### Geological System/Age and Primary Rock Type

The bedrock under the site is pure bedded, Lower Carboniferous limestone (359-323 Ma), but the turlough feature itself is post-glacial, formed in the last 11,000 years.

### Main Geological or Geomorphological Interest

The landscape surrounding Newchapel Turlough is comprised of low hills, but the floor of the turlough is relatively flat except for a rise in the southeastern portion. The basin is confined by slopes on the north, west and part of the southeast but is more open to the east and south. The southeastern shore is the most steeply sloping with a good zonation from wet to drier grassland, while wetland herbs predominate in wetter areas.

The basin is occupied by a semi-permanent lake in the northern end, fringed with unimproved wet grassland, which is subject to inundation when the waterlevel rises. There are two smaller pools in the southern end; all three waterbodies join when the turlough floods.

The feature reflects the interaction of the groundwater table with the land surface, and is a seasonal lake. There are many erratics of pure limestone around the base of the turlough, as well as outcropping limestone bedrock at the southeast, much of which are moss covered up to a certain elevation. Such moss provides a watermark which allows an approximation of the high water level when the turlough is in flood to be gleaned. The bedrock around Newchapel turlough is of dolomite, which is magnesium limestone (calcium magnesium carbonate,  $\text{CaMg}(\text{CO}_3)_2$ ).

Newchapel Turlough has a varied vegetational cover for its size, with patches of a number of separate communities around the floor of the basin. The occurrence of water germander, which is a striking, creeping plant which is rare and which has medicinal uses, is noteworthy; this is only found in Ireland along the shore of Loughs Derg and Ree, and in some turloughs in East Clare and North Tipperary.

### Site Importance – County Geological Site

This turlough is worthy of recognition as a County Geological Site owing to the local-scale geological and geomorphological diversity across the feature, across a relatively small area. The feature is already a pNHA (sitecode 000653) and the designated County Geological Site matches the boundaries of the pNHA area.

### Management/promotion issues

Issues such as cattle encroachment and soil disturbance of the margins, as well as agricultural drainage attempts, may cause problems to the integrity of the feature.



Newchapel Turlough, viewed from the northeast.



The northwestern end of the lake at the northern side of the turlough.



