

# LOUTH - COUNTY GEOLOGICAL SITE REPORT

<b>NAME OF SITE</b>	<b>Waterunderbridge – Dry Bridge</b>		
Other names used for site			
<b>IGH THEME</b>	<b>IGH1 Karst</b>		
<b>TOWNLAND(S)</b>	<b>Mell, Tullyallen</b>		
<b>NEAREST TOWN/VILLAGE</b>	<b>Drogheda</b>		
<b>SIX INCH MAP NUMBER</b>	<b>24</b>		
<b>ITM CO-ORDINATES</b>	<b>706225E 776585N</b>		
<b>1:50,000 O.S. SHEET NUMBER</b>	<b>43</b>	<b>GS1 BEDROCK 1:100,000 SHEET NO.</b>	<b>13</b>

## **Outline Site Description**

A karstic sinking river starts at Waterunderbridge and continues downstream southwards as far as Dry Bridge. The site is mostly in a narrow, shallow gorge with the sometimes-dry streambed in it.

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

The rock is Carboniferous limestone of the Tullyallen Formation, and possibly also the Platin Formation, but the karstification is entirely post-glacial in age, formed during the last 10,000 years or less.

## **Main Geological or Geomorphological Interest**

Evidence from numerous sources shows that the limestones around Dry Bridge are karstified, including those in the nearby Mell Quarry (see Mell Quarry site report). Borehole logs from the area also show well-developed karstification with cavities accounting for approximately 10% of the original rock volume.

Numerous swallow holes were mapped in May 2008 and April 2010 in the bed of the stream which flows past Dry Bridge. Most of these were observed at Waterunder Bridge, approximately 800m northeast of the public supply borehole (seen today in the roadside block building at Dry Bridge). In drought conditions, the entire flow in the stream disappears into these swallow holes. During site visits in relatively dry conditions (19/05/2008 and 30/04/2010) this water was seen to resurface in the dry bed of the stream, some 200m downstream of where it sank. The flow in the stream was of greater magnitude during the 2008 visit. The exact locations of the final sinking of the stream and its subsequent resurgence downstream varied slightly between the two visits showing that the karst system is dynamic and that different karst pathways can be followed depending on the magnitude of flow through the system. The gully hosting the stream at Waterunderbridge, shows well developed epikarst, with frequent, large solutional openings in the rock.

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

Karst in County Louth is rare and this is a small but good example of classical karstic drainage, with sinks and risings.

## **Management/promotion issues**

The karst drainage is a near surface feature, and is presumed to be separate from the aquifer which provides a public supply at Dry Bridge. As it is possible to see parts of this feature from the roadside, it has the potential to be promoted in a modest way with a signboard or in other ways.



The public supply borehole at Drybridge, with the bridge beneath the two people.



The dry river bed is in the trees to the left of the grassy field, immediately north of Drybridge.



Limestone exposures in the channel.



The roadbridge at Drybridge is inconspicuous.





