

## WICKLOW – COUNTY GEOLOGICAL SITE REPORT

<b>NAME OF SITE</b>	<b>Britonstown</b>
Other names used for site	Main channel also called 'The Glen'
<b>IGH THEME</b>	<b>IGH7 Quaternary</b>
<b>TOWNLAND(S)</b>	<b>Bishopsland (Kildare), Britonstown (Wicklow)</b>
<b>NEAREST TOWN/VILLAGE</b>	<b>Ballymore Eustace (Kildare), Hollywood (Wicklow)</b>
<b>SIX INCH MAP NUMBER</b>	<b>9</b>
<b>ITM CO-ORDINATES</b>	<b>694596E 708490N (centre of channel)</b>
<b>1:50,000 O.S. SHEET NUMBER</b>	<b>56 GSI BEDROCK 1:100,000 SHEET NO. 16</b>

### **Outline Site Description**

The Britonstown site comprises two interlocking glacial meltwater channels that were formed by meltwater erosion as water escaped from Glacial Lake Blessington at the end of the last Ice Age. The channels are oriented generally northeast–southwest or west-east, and extend for a distance of approx. 950m.

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

The feature is formed in an area of deep glacial sediments which have a 'scalped' appearance. The feature was etched out by meltwater during deglaciation at the end of the last Ice Age, about 12,000 years ago.

The bedrock in the locality is Silurian metasediments and volcanics, which are generally slates and schists.

### **Main Geological or Geomorphological Interest**

The Britonstown channels are up to 30m deep and have a U-shaped profile, typical of meltwater channels. The base of the channels are dry.

The channels are considered to have formed completely in the late-glacial Period. Initially the channels may have been subglacial channels, formed under the ice, but later carried surface glacial outwash from Glacial Lake Blessington to the lowlands to the west. The channels carried large volumes of subglacial meltwater draining the lake which covered the area now inundated by the Pollaphuca Reservoir. This very high energy meltwater flow developed the channels' unusual depth and size.

Much of the sides of the channels are very steep, and are covered in scrub along most of their lengths. Only half of the southern channel is located in Wicklow; therefore the site extent only covers half of the feature.

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

This is a site with good teaching potential on glacial meltwater erosion, as the feature is fairly accessible and easily viewed from roads. The feature lies within a proposed SPA (SPA 004063, Pollaphuca Reservoir), and NHA (NHA 000731), and the bridges over the channels are protected as they contain high arches and refuges from ca. 1830, designed by Alexander Nimmo.

### **Management/promotion issues**

The roadside location of the channels means they are fairly accessible. However, there is no parking nearby and it is difficult to stop safely on the road. Promotion of the features along these roads is therefore not recommended.

The channels themselves and their origins should however be highlighted in any promotion of the above SPA, NHA or Protected Structure elements of the locality.

The Kildare element of the site needs to be incorporated into the audit for Kildare and a revision made to the County Development Plan in Kildare



The main Britonstown channel, 'The Glen', looking northeast towards Pollaphuca Reservoir.



The adjacent channel, southwest of Pollaphuca Bridge.



The upper reaches of the main channel near the reservoir.



View south along the main channel, looking into Silverhill Townland in County Kildare.



