

WICKLOW - COUNTY GEOLOGICAL SITE REPORT

NAME OF SITE	Woodenbridge Wellfield
Other names used for site	
IGH THEME	IGH16 Hydrogeology
TOWNLAND(S)	Garnagowlan, Kilcarra
NEAREST TOWN/VILLAGE	Woodenbridge
SIX INCH MAP NUMBER	40
NATIONAL GRID REFERENCE	720480E 676216N (centre of southeastern cluster)
1:50,000 O.S. SHEET NUMBER	62 GSI Bedrock 1:100,000 Sheet No. 19

Outline Site Description

The Woodenbridge Wellfield is the public water supply source for the Arklow area. The source consists of five bored wells which together provide approximately 10,000m³ of water per day.

Geological System/Age and Primary Rock Type

The wells are between 12.5m and 20.6m deep and are bored into a sequence of alluvial clays, gravels and clays. The alluvial gravels are approx. 10m deep, with the gravels underlain by clay, and the depth to bedrock at the site is greater than 20m.

Main Geological or Geomorphological Interest

Combined, the four boreholes have been proven to be capable of supplying up to 10,000m³ per day, or 10 million litres of water. Collectively these boreholes are therefore potentially some of the best yielding wells in Ireland.

It is considered that the Arklow River, which is only a few tens of metres from the boreholes laterally, is perched on top of the alluvial clay deposits. Temperature and conductivity readings taken from the well water during a pumping test at Woodenbridge in 2009 suggested that the boreholes were drawing water from the river.

The gravel deposit is therefore acting like a saturated 'funnel' of groundwater set in the valley, constrained by high bedrock ridges on either side, and with water levels just below ground level.

Site Importance – County Geological Site

These are exceptionally productive bored wells which are among the top-yielding wells in the country. Four of the boreholes are situated within the Avoca River Valley Proposed NHA (Site Code 001748).

Management/promotion issues

The boreholes are well protected, with secure surrounding fencing and secure concrete, above-ground, chambers containing their caps.



The infrastructure around the northwesternmost borehole, within Woodenbridge Golf Club.



One of the boreholes in the southeastern cluster of four.



