

WATERFORD - COUNTY GEOLOGICAL SITE REPORT

NAME OF SITE	Blackwater Bend
Other names used for site	
IGH THEME	IGH14 Fluvial and Lacustrine geomorphology
TOWNLAND(S)	Cappoquin, Kilbree East
NEAREST TOWN	Cappoquin
SIX INCH MAP NUMBER	Waterford 21
NATIONAL GRID REFERENCE	210040 99547
1:50,000 O.S. SHEET NUMBER	81 1/2 inch Sheet No. 22

Outline Site Description

The Bend in the Blackwater River at Cappoquin is a point in the river course where the flow direction changes ninety degrees, from an eastwards flow to a southerly flow through gorges into high rock ridges, even though a valley floor continues eastwards to Dungarvan.

Geological System/Age and Primary Rock Type

The feature in its current form has been formed in the late Quaternary (Ice Age) Period, but the macro-morphology of the feature can probably be traced back to earlier Tertiary times.

Main Geological or Geomorphological Interest

In 1862, J.B. Jukes, the Director of the Geological Survey of Ireland (GSI), thought that the bend in the river was a result of two drainage patterns of different ages overprinting each other, as the north-south orientation was of an earlier river flowing along that plane in late Carboniferous times and the west-east was from later Armorican times.

In 1878 Kinahan, also from the Geological Survey of Ireland, thought that the change in direction was a result of fault-fissures while Edward Hull, another Director of the GSI, writing in 1894, had thought that an obstruction had prevented the rivers flowing eastwards and had forced them southwards. In 1905, the geologist Lamplugh suggested that the drainage was diverted by blocking glacier ice in the valley, east of Cappoquin.

Two geographers, Davies and Whittow, analysing the issue in 1975, supposed that the southwards orientation south of Cappoquin was a relict of an earlier, southerly drainage channel which was active during the Tertiary when the Carboniferous limestone was drained by a river flowing underground through subsurface channels, southwards. The surface drainage above this was from east to west, and over time as the surface drainage and the surface itself lowered in elevation, the west to east-flowing river met and joined with the underground, north-south channel. Hence the river was 'captured' by the earlier formed, and previously underground, channel.

Site Importance

The site is the best example of river capture in the country, and no other large river has a similar ninety-degree bend of such size. Owing to this, and the variety of theories that have abounded discussing its formation, the site is considered to be of potential NHA status on geological grounds alone. The site already lies within the Blackwater River and Estuary SAC/pNHA 000072.

Management/promotion issues

This is a macro-scale feature and has few management issues as the bend can be seen from the main roads which pass adjacent to the feature. An information board along the river may prove a worthy addition to the site, although the geological concepts of how the bend formed are quite complex and somewhat difficult to explain.



Panorama of the bend from the south side.



View over Cappoquin and the Blackwater Bend from high ground to the west.



The southward bend of the river in Cappoquin from the Avonmore Bridge, and from the south side, adjacent to disused railway bridge.



