## **CORK - COUNTY GEOLOGICAL SITE REPORT**

NAME OF SITE The Gearagh
Other names used for site An Gaorthadh

IGH THEME IGH14 Fluvial and Lacustrine Geomorphology

TOWNLAND(S) Tír Ghé (Teergay), Inchisine, Annahala West, An Gaorthadh

Thiar (Gearaghwest), Rath Luíoch Theas, An Seantóir, Dún

Dea-radhairc

NEAREST TOWN/VILLAGE Macroom

SIX INCH MAP NUMBER 70

ITM CO-ORDINATES 532000E 571000N

1:50,000 O.S. SHEET NUMBER 79 GSI BEDROCK 1:100,000 SHEET NO. 21

GIS CODE CK083

#### **Outline Site Description**

A wide, flat river valley of the River Lee, comprising alluvial woodland to the west, alluvial islands separated by a multiple-channel fluvial system, and a shallow lake (reservoir) to the east.

## Geological System/Age and Primary Rock Type

The Gearagh occupies an outlier of Lower Carboniferous (Mississippian) limestone, surrounded by older Upper Devonian sandstones. Glaciofluvial sediments of Quaternary age occur as thick deposits at the west and east end of the wide valley and are cut by the course of the River Lee. The alluvial islands and fluvial system at the Gearagh is a Holocene age feature of the landscape, forming after the last Ice Age, which ended around 12,000 years ago.

## **Main Geological or Geomorphological Interest**

The Gearagh is regarded as the best of the very few examples of an anastomosing lowland forested river in north-west Europe. Anastomosing channels are relatively stable channel networks with non-flooding islands (in contrast to braided channels which consist of unstable channels with bars that are regularly inundated). Located approximately 2 km south-west of Macroom, it is noted for its alluvial and wet woodland, much of which occupies the numerous islands through which anastomosing channels of the Toon River and River Lee branch and flow.

Prior to the flooding of the river valley in the 1950s, as part of the River Lee hydroelectric scheme, the alluvial forest was more extensive in coverage, stretching from Lee Bridge (east) to Toon Bridge (west).

# Site Importance – County Geological Site; recommended for Geological NHA

The Gearagh is noted for its alluvial and wet woodland within an anastomosing channel and is the only such site remaining in Ireland. Floodplain woodland is a very rare ecosystem in northwest Europe. This is a very important County Geological Site, where lithology, structural geology and geomorphology have influenced the development of this rare wooded fluvial ecosystem.

#### Management/promotion issues

Owned by the ESB, the Gearagh is a Special Protection Area (004109), Special Area of Conservation (000108), Nature Reserve, and Ramsar Convention site. The Nature Reserve car park is a suitable location for an information panel communicating the hydrological, geomorphological, and geological characteristics associated with the Gearagh.



View southwest from Sleveen East over the lake east of the Port Road causeway.



View upstream. Anastomosing channels and reed covered alluvial islands, west of causeway.



View downstream along Toon River in west Tullatreada.



View downstream across The Gearagh. Tree stumps visible just above water surface, east of causeway.



