

GALWAY - COUNTY GEOLOGICAL SITE REPORT

NAME OF SITE	Williamstown Turloughs
Other names used for site	Polleagh Lough, Curragh Lough, Gortduff Lough (individually)
IGH THEME	IGH1 Karst, IGH16 Hydrogeology
TOWNLAND(S)	Polleagh North, Gortduff, Polleagh South, Beagh, Cloonmaghaura, Coothagh, Curragh West
NEAREST TOWN/VILLAGE	Williamstown
SIX INCH MAP NUMBER	5, 6
ITM CO-ORDINATES	557200E 768340N (centre of Polleagh Lough)
1:50,000 O.S. SHEET No. 39	GS1 BEDROCK 1:100,000 SHEET NO. 12

Outline Site Description

This site comprises a suite of small turloughs in a wide, shallow basin about 7 km west of Williamstown. The turloughs are individually called Curragh Lough, Polleagh Lough, its subsidiary Polleagh West Lough, and Gortduff Lough.

Geological System/Age and Primary Rock Type

The bedrock under the site is pure bedded Lower Carboniferous limestone, but the turlough features themselves are post-glacial, formed in the last 11,000 years.

Main Geological or Geomorphological Interest

The turloughs site lies within a complex of low hills of glacial till, esker ridges and raised and valley peats, close to the Shannon - Corrib watershed. There are a number of small streams feeding surface water into the features, but no surface outflows.

Polleagh Lough is an oligotrophic turlough. It has a permanent very shallow lake which is probably dependent for its existence in summer on a perched water-table fed only by water from its surrounding small catchment area flowing onto peat and marl. This catchment area includes a significant area to the east of the Regional R360 road. Polleagh Lough is joined to Polleagh West at times of high flood, completely surrounding a low hill of glacial till. In summer, Polleagh West almost dries out.

Curragh Lough is similar in many ways and is in hydraulic continuity with Polleagh.

Gortduff is a small, well-grazed, elongated and undulating steep-sided turlough at the northern end of the site, with a number of swallow holes therein. It has a permanent pond (at its southeastern end) which is also dependent on a perched water table.

Water flowing into swallow holes at Gortduff and Polleagh Lough West has been previously dye-traced and the water emerged from both traces at Tobernara Springs near Kiltelva, in Flaskagh More Townland, which is 2-3 km to the west of the Williamstown Turloughs site. This proves that subsurface, groundwater flow from the Williamstown Turloughs locality is westwards, *via* conduits underground.

Site Importance – County Geological Site; recommended for Geological NHA

This County Geological Site is worthy of recognition as a Geological NHA owing to the local-scale geomorphological diversity across the features across a relatively small area, as well as the well-defined subsurface hydrogeological connections with springs to the west. The feature is already designated as an SAC (Site code 002296).

Management/promotion issues

Issues such as cattle encroachment and soil disturbance of the margins may cause problems. Threats to the site would include drainage of surrounding lands or the release of polluting substances, *e.g.* silage effluent, into the system.



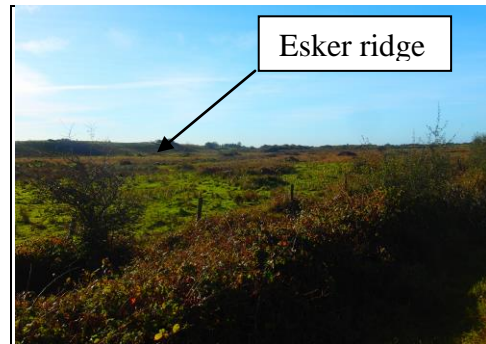
Polleagh Lough, with very low levels of water within, viewed from the southwest, September 2018.



Raised peat in the main turlough depression, at the southeastern end of the turlough site.



Curragh Lough, almost dry, September 2018.



The esker at the eastern edge of the R360.

