

## NORTH DONEGAL - COUNTY GEOLOGICAL SITE REPORT

<b>NAME OF SITE</b>	<b>Quigley's Point (Lough Foyle)</b>
Other names used for site	Carrowkeel
<b>IGH THEME</b>	<b>IGH13 Coastal Geomorphology</b>
<b>TOWNLAND(S)</b>	<i>Numerous townlands border the features</i>
<b>NEAREST TOWN/VILLAGE</b>	<b>Quigley's Point</b>
<b>SIX INCH MAP NUMBER</b>	<b>30, 31, 39</b>
<b>ITM CO-ORDINATES</b>	<b>651770E 931100N (Quigleys Point)</b>
<b>1:50,000 O.S. SHEET NUMBER 3</b>	<b>GS1 BEDROCK 1:100,000 SHEET NO. 1</b>
<b>GIS Code ND043</b>	

### Outline Site Description

This site is representative of several similar features that occur along Inishowen's Lough Foyle shoreline between Muff and Moville. Fans of sand and gravel have formed at stream mouths where the sediments have been reworked to form delta-like features.

### Geological System/Age and Primary Rock Type

The features have formed since the end of the last Ice Age (the last c.11,600 years), and are Holocene in age, and continue to develop along Inishowen's Lough Foyle shoreline.

### Main Geological or Geomorphological Interest

Lough Foyle is a shallow, semi-enclosed coastal body of water covering an area of c. 160km<sup>2</sup>. Wave energy in the 'lough' is low because of the narrow mouth constricted by the Magilligan foreland.

The western shore of Lough Foyle is predominantly rocky (in contrast to the tidal mud and sand flats on the eastern shore). This coastline rises (albeit discontinuously) to elevations of >100mOD within 100m of the Lough Foyle shoreline. Fast-flowing streams descend from this elevated terrain, and wash into a relatively shallow low wave energy water body (Lough Foyle). The 'delta fan' features have formed from stream outflow sediment deposition, and subsequent shallowing of nearshore areas at the stream mouths. These are residual lobes on a receding coast where low cliffs have been cut in an apron terrace of glacial drift. This low energy system impedes the dispersal of the fan delta sediments, and the shallow lobes of sediment are less susceptible to wave attack.

The fan deltas are formed of coarse-grained and relatively poorly sorted sediment which has been reworked to form narrow beaches of mixed sand and gravel. These beaches are bounded by the deep tidal channel of Lough Foyle that runs parallel, and just off the Inishowen coast.

Fan deltas occur at several locations along the western shore of Lough Foyle including (NE-SW) Moville, Glebe Bridge, Clare Bridge, Brown Shoulder, Redcastle Hotel, Vances Point, White Castle, Quigley's Point, Rinenore (Aught East), Ture Point, and Sand Point (Drumskellan).

### Site Importance – County Geological Site

These features are significant as a County geological Site because of their rarity in Ireland.

### Management/promotion issues

The shoreline hosts an active mussels and oysters aquaculture industry. The features are not deemed to be under any threat other than natural coastal erosion processes. Any extraction of the sands and gravels should be discouraged.



Sands and gravel on the shoreline southwest of Quigley's Point looking east to the delta feature.



Delta fan (similar to Quigley's Point) at Vances Point, viewed looking southwest of Redcastle.



Delta fan (similar to Quigley's Point) on west side of Moville, viewed from Moville Pier.



