

# WATERFORD - COUNTY GEOLOGICAL SITE REPORT

<b>NAME OF SITE</b>	<b>Newtown</b>
Other names used for site	
<b>IGH THEME</b>	<b>IGH7 Quaternary</b>
<b>TOWNLAND(S)</b>	<b>Newtown, Crooke</b>
<b>NEAREST TOWN</b>	<b>Passage East</b>
<b>SIX INCH MAP NUMBER</b>	<b>Waterford 18</b>
<b>NATIONAL GRID REFERENCE</b>	<b>269995, 107310</b>
<b>1:50,000 O.S. SHEET NUMBER</b>	<b>76</b> <b>1/2 inch Sheet No.</b> <b>23</b>

## **Outline Site Description**

This site includes a low coastal cliff section that extends for c. several hundred metres and is c. 6m-8m high over the majority of its extent.

## **Geological System/Age and Primary Rock Type**

The cliff section along the Newtown portion of the beach at Raheen-Newtown is comprised of Quaternary Age glacial sediments.

## **Main Geological or Geomorphological Interest**

The cliff exposes long-studied sediments, which have made this a type-site for glacial stratigraphic work in Ireland. Summarising, the cliff was previously interpreted as being comprised of a till overlying a head deposit which again overlies silts with interspersed thin peat, which has been dated at 38,000 years BP. The silt overlies beach gravels which again lie on top of a shore platform in bedrock. Lower Ordovician Ribband Group rocks of stripy slates are well displayed in places on this platform.

The silt and peat deposits were considered by some researchers to be from the penultimate interglacial but others considered them to be from the last interglacial period.

Examining the sedimentology of the cliff shows that there are two tills, a less consolidated, more stony and more haphazard till about 2m-3m thick, overlying a competent, stiff, finer-grained till in the basal 4m-6m. This sequence may be simply a subglacial till at the base of the section, overlain by a melt-out till 'dropped' out of the ice.

The lower till includes gravel beds and clay lenses, and is dominated by erratic Old Red Sandstone rocks. Large boulders of Leinster granite and Ordovician rocks are also seen in the section and strewn across the beach.

At the base of the section today, a yellow clay overlies reddish brown silty clay material in the central portion of the section: this may be where the original peat find was recorded.

## **Site Importance**

This is a particularly impressive exposure into deep glacial tills, with several sedimentological characteristics well exposed. The site is effectively included within the existing proposed Waterford Harbour NHA (pNHA 000787). It is also part of the River Barrow and River Nore SAC 002162. County Geological Site status will help protect it until it is formally put forward for designation as a geological NHA.

## **Management/promotion issues**

The site is accessible through public beach access and is therefore easily visited. The cliffs are prone to slumping, however, and care must be taken when close to the faces. The importance of the section could be highlighted in promotional material for the Waterford Harbour proposed NHA. The site is entirely contiguous with the Raheen Shore section but the different geological interests have been kept as two separate sites.



Newtown section looking south towards the Raheen Shore site in the distance.



Newtown section looking north.



