

## WEXFORD - COUNTY GEOLOGICAL SITE REPORT

<b>NAME OF SITE</b>	St. Helen's Harbour
Other names used for site	
<b>IGH THEME</b>	IGH5 Precambrian
<b>TOWNLAND(S)</b>	St. Helen's, Killillane
<b>NEAREST TOWN/VILLAGE</b>	St. Helen's
<b>SIX INCH MAP NUMBER</b>	48
<b>ITM CO-ORDINATES</b>	714470E 609880N
<b>1:50,000 O.S. SHEET NUMBER</b>	77
<b>GSi BEDROCK 1:100,000 SHEET NO.</b>	23

### Outline Site Description

Rocky outcrops along the coastline around the St. Helen's Harbour pier area to the south of St. Helen's Bay Golf Club and holiday village.

### Geological System/Age and Primary Rock Type

Precambrian age St. Helen's Gabbro (metamorphosed gabbro), part of the Rosslare Complex.

### Main Geological or Geomorphological Interest

Bedrock at St. Helen's Harbour comprises the metamorphosed igneous St. Helen's Gabbro of the Rosslare Complex. The Rosslare Complex consists of some of the oldest rocks in Ireland (certainly the oldest in southeast Ireland) with ages estimated at around 1.7 billion years, before being metamorphosed and deformed around 620 million years ago.

Outcropping along a near-continuous 150m thick section at, and to the north and south of, St. Helen's harbour, the St. Helen's Gabbro rocks occur at the coastal junction (east) of the Greenore Point Group green amphibolites (north) and Kilmore Quay Group gneisses (south).

Unlike the Greenore Point Group amphibolites to the north the St. Helen's Gabbro do not exhibit foliation. It has been suggested that the metagabbros are younger than the amphibolites to the north, and were emplaced as a separate igneous intrusion event around 610 million years ago. This assigns the St. Helen's Gabbros the accolade of representing the only Precambrian igneous intrusion identified in southeast Ireland.

### Site Importance – County Geological Site

This is an important County Geological Site as it is the only Precambrian igneous intrusion identified in southeast Ireland. The coastal section is located within Carnsore Point SAC (002269). Greenore Point is located in St. Helen's Burrow pNHA (00782).

### Management/promotion issues

Any development of the harbour area would see the integrity of the site being compromised, as the main outcrops occur immediately north and south of the existing pier. The ease of access to this coastal site renders the site of particular interest to geology interest groups and student groups.



St. Helen's Harbour, looking south.



Metagabbro outcrop on beach just north of St. Helen's harbour.



Light and dark minerals in coarse-grained metagabbro just north of St. Helen's harbour.



Metagabbro on beach just north of St. Helen's harbour, looking north towards Greenore Point in distance.



