

# WATERFORD - COUNTY GEOLOGICAL SITE REPORT

<b>NAME OF SITE</b>	<b>Copper Coast (OVERVIEW)</b>
Other names used for site	
<b>IGH THEME</b>	<b>IGH4 Cambrian – Silurian, IGH6 Mineralogy, IGH13 Coastal Geomorphology and other themes</b>
<b>TOWNLAND(S)</b>	<b>Many</b>
<b>NEAREST TOWN</b>	<b>Tramore and Stradbally</b>
<b>SIX INCH MAP NUMBER</b>	<b>Waterford 24, 25, 26, 32</b>
<b>NATIONAL GRID REFERENCE</b>	<b>East: 258217 101050 West: 236975 96922</b>
<b>1:50,000 O.S. SHEET NUMBER</b>	<b>76, 82            1/2 inch Sheet No.    22, 23</b>

## **Outline Site Description**

A very long section of coastal cliffs from near Tramore in the east to beyond Stradbally Cove in the west.

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

The Copper Coast includes a complete package of Ordovician volcanic rocks and associated sedimentary rocks, which erupted over approximately a 20 million year period, about 475 to 455 million years ago. The rocks include andesites, rhyolites, slates, mudstones, fossiliferous limestones and others. There are also downfaulted blocks of Devonian age sandstones and conglomerates.

## **Main Geological or Geomorphological Interest**

The entire coast is a complex mix of geologically interesting rock sequences, structures and features. There is great geodiversity, including active and dynamic coastal geomorphological features. The rocks were principally the result of two volcanic centres – the slightly older Bunmahon volcano and the slightly younger Kilfarrasy volcano, both of which are informally named. There are also large areas of sedimentary rocks along the Copper Coast, which were deposited in the ocean around the volcanoes, but they are now much less well exposed inland than the volcanic rocks. Hence the coastal sections give a much more detailed picture of the regional geology for geologists to interpret.

The Copper Coast is so named because of the historical mining of copper, mostly in the 19<sup>th</sup> century, which has left a widespread impression along the coast but especially around Bunmahon, Knockmahon, Stage Cove and Tankardstown. This includes cliff top shafts, cliff face adits, dressing floors, mine buildings, a tramway and the iconic engine house and chimney at Tankardstown. The entire coast provides evidence which can be read by a geologist, but the following site reports are brief focused descriptions of some of the highlights of the area and by default these are the more accessible parts of the coast. Other sites and sections are also important, but not all the coast can be described in full.

## **Site Importance**

The Copper Coast is a superb collection of geology and landscape features, with human interventions for mining. It is at least of national importance, and elements of it are arguably of international importance. The sites highlighted within the Copper Coast in this audit are already part of a proposed NHA (Ballyvoyle Head to Tramore No 1693).

## **Management/promotion issues**

The Copper Coast Geopark, supported by Waterford Council Council has already installed many excellent features, facilities and interpretation in the region. Some of the earliest models of interpretative panels have begun to fade badly with UV light and should be replaced. Supply and distribution of information in as many different formats as can be managed will only further enhance the excellent situation existing in 2011.

