

WATERFORD - COUNTY GEOLOGICAL SITE REPORT

NAME OF SITE	Dungarvan Harbour (including Cunnigar Spit)		
Other names used for site			
IGH THEME	IGH13 Coastal geomorphology		
TOWNLAND(S)	Cunnigar, Ballynacourty North		
NEAREST TOWN	Dungarvan		
SIX INCH MAP NUMBER	Waterford 31, 36		
NATIONAL GRID REFERENCE	226870 91670 (Cunnigar Spit)		
1:50,000 O.S. SHEET NUMBER	82	1/2 inch Sheet No.	22

Outline Site Description

Dungarvan Harbour is a wide coastal embayment, flanked on either side by protruding bedrock headlands and incorporating coastal flats and an exceptionally straight sand spit at Cunnigar.

Geological System/Age and Primary Rock Type

The feature has been formed in the Holocene Period, since the last glaciation, and the harbour itself hosts soft mud, silt and sand sediment washed into it during that time.

It is likely that the macro-structure of the harbour dates back through the Quaternary (Ice Age) to the Tertiary Period.

Main Geological or Geomorphological Interest

The harbour is almost perfectly symmetrical and is bordered on the north by Ballynacourty Point and to the south by Helvick Head, both well-defined protruberances of bedrock which form headlands. Freshwater feeds into the harbour *via* the Colligan River, which flows through Dungarvan. The central portion of the harbour comprises mud, silt and sand flats, which dry out at low tide. Salt marshes occur in pockets around the harbour edge and there is a narrow sand or gravel beach in places also.

Cunnigar spit has formed as a result of deposition by longshore drift, which is the movement of sand along the coast by the waves. The spit is formed when the sand material - that is being carried by the waves - gets deposited due to a loss of the waves energy, because the estuary emerging at the north of the bay slows it down. As time progresses, the deposited material has formed a spit, which is 2.6 km long and which almost closes the harbour at its northern end. The sand flats to the east of Cunnigar support an extensive oyster farming operation.

The spit has been the result of wind erosion and deposition over the millennia since the Ice Age and several large dunes have formed across it. Dune slacks occur between these, which are low, narrow, marshy localities.

Site Importance

Cunnigar spit is an impressive feature and the associated beach, dune and slack features, as well as the surrounding beaches, salt marshes and headlands, make Dungarvan Harbour a textbook locality for the recognition of coastal erosion and deposition features. The Harbour is already a proposed NHA (pNHA 00663, Dungarvan Harbour) for biodiversity reasons and the geodiversity of an active sedimentation system should be highlighted in any promotion of this.

Management/promotion issues

The location of the features means they are easily accessible, and Dungarvan is a popular holiday destination. An information board at Cunnigar may prove a worthy addition to the site, explaining the formation of the feature and its associated habitats, flora and fauna.



A panorama view of Dungarvan Harbour showing sandbars and mudflats at low tide.



The Cunnigar sand spit extends almost across the harbour, viewed from the ridge to the south of the harbour.



The Cunnigar sand spit extends almost across the harbour, viewed from Helvick Head.



