WATERFORD - COUNTY GEOLOGICAL SITE REPORT

NAME OF SITE	**Clonea Strand**		
Other names used for site	'The Gold Coast'		
IGH THEME	**IGH8 Lower Carboniferous**		
TOWNLAND(S)	**Clonea Lower**		
NEAREST TOWN	**Dungarvan**		
SIX INCH MAP NUMBER	**Waterford 31**		
NATIONAL GRID REFERENCE	**231788 94195 (entry to strand)**		
1:50,000 O.S. SHEET NUMBER	82	**1/2 inch Sheet No.**	22

Outline Site Description
Coastal foreshore rock exposures at the north end of Clonea Strand.

Geological System/Age and Primary Rock Type
The rocks are of Carboniferous Limestone.

Main Geological or Geomorphological Interest
At this end of the beach are rock exposures around the short headland of Clonea Castle, showing the older Ballysteen Limestone Formation and the transition into the younger Waulsortian Formation which underlies most of the Dungarvan Syncline. This name, meaning a downfold or rock, is the term for the geological structure of the east-west trending valley inland from Dungarvan Harbour. The relationship between the formations is not often seen as there are few rock exposures inland, but this site shows that it was a gradual change in sedimentation patterns, and not a sudden event. However the transition is partially obscured by concrete and stone walls constructed around an outflow pipe.

The exposures of the Ballysteen Limestone Formation show an interesting feature when seen from their northern side. They have a strong cleavage in them which is the property of splitting along particular directions, given to the rock by the history of being squeezed at high pressure by major tectonic forces around 300 million years ago. The cleavage is nearly vertical in these beds, which dip generally southward. A feature seen especially well at Clonea is cleavage refraction, where the direction changes as it passes from coarser grained beds to finer grained ones and back again.

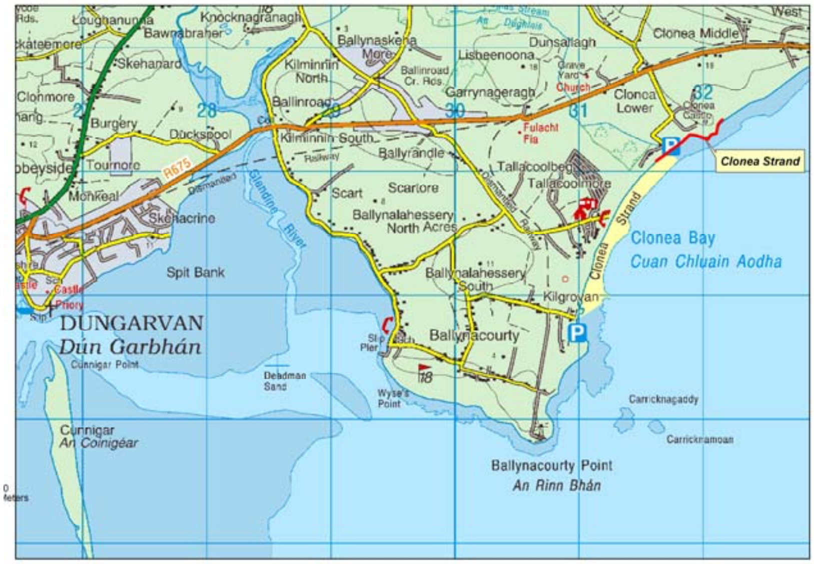
Site Importance
It is a site of local importance in understanding the geology of the Dungarvan area and worthy of County Geological Site status.

Management/promotion issues
The site is not at any great risk, although dumping of exotic rock boulders in any kind of coastal protection measure should be avoided. Given that it has safe access from the public access and car park services, Clonea Strand could be promoted more as an interesting geological locality. However, the geological stories that it displays are quite complex and not easily presented in a straightforward way and would need expert interpretive geologist input.

A panorama view of the rocks at the immediate north end of the beach at Clonea Strand.

A view of the rocks below Clonea Castle, showing well developed cleavage refraction.

A view of the rocks at the immediate north end of the beach at Clonea Strand, with the transition from Ballysteen Limestone into Waulsortian Limestone roughly where the outfall pipe is protected by concrete and stone (Robbie Meehan is on this line).


Knocknagranagh
Bawnabraher
Ballynaskena More
Lisheenoona
Dunsallagh
Clonea Middle
Skehanard
Kilminnin North
Ballinroad
Ballinroad Cr. Rds
Grave Yard
Church
Garrynageragh
Clonea Lower
Clonmore
Burgery
Duckspool
28
30
31
32
Fulacht Fia
Kilminnin South
Ballyrandle
Tallacoolbeg
Clonea Strand
Tournore
R675
Tallacoolmore
Scart
Scartore
Monkeal
Skehacrine
Ballynalahessery North Acres
Clonea Bay
Cuan Chluain Aodha
Spit Bank
Ballynalahessery South
Kilgrovan
DUNGARVAN
Dún Garbhán
Cunnigar Point
Ballynacourty
Deadman Sand
Wyse's Point
Carricknagaddy
Carricknamoan
Cunnigar
An Coinigéar
Ballynacourty Point
An Rinn Bhán


N
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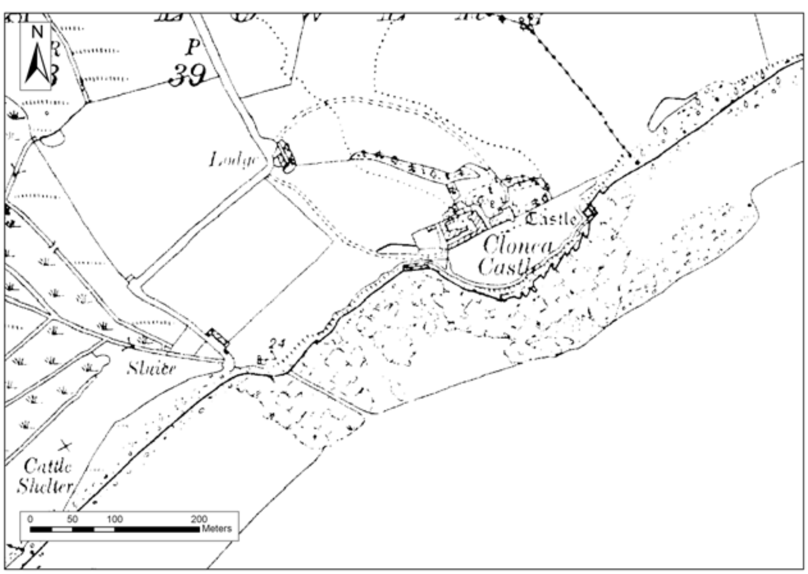
Meters
Clonea Strand


N
P
39
Lodge
Castle
Clonea Castle
24
Sluice
Cattle Shelter
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