

WEXFORD - COUNTY GEOLOGICAL SITE REPORT

NAME OF SITE	Lady's Island Lake		
Other names used for site			
IGH THEME	IGH13 Coastal Geomorphology, IGH14 Fluvial and Lacustrine Geomorphology		
TOWNLAND(S)	Numerous townlands bordering lake		
NEAREST TOWN/VILLAGE	Lady's Island		
SIX INCH MAP NUMBER	48, 53		
ITM CO-ORDINATES	709800E 606300N (centre of lake)		
1:50,000 O.S. SHEET NUMBER	77	GSi BEDROCK 1:100,000 SHEET NO.	23

Outline Site Description

A shallow coastal lagoon, separated from the sea by a sandy gravel barrier, situated about 3km west of Carnsore Point at the most southeastern tip of Ireland.

Geological System/Age and Primary Rock Type

The floor of the lagoon varies from mud to sand and gravel, and overlies predominantly Caledonian granite (Carnsore Granite and Saltees Granite), and Precambrian gneisses (Kilmore Quay Group) to a lesser extent in the northern part of the lagoon. Two north-south trending faults follow the long north-south axis of the lagoon, and extend northwards to branch either side of Rosslare.

Main Geological or Geomorphological Interest

Lady's Island Lake is a natural, brackish, percolating lagoon (separated from the sea by a sand and shingle barrier through which seawater seeps or spills over the top), and is the largest of this type of sedimentary lagoon in the country. It is in a relatively natural condition, despite regular breaching of the sand and shingle barrier (often human-induced) which causes wide fluctuations in water-level and salinity. There is no natural outlet to the sea except seepage through the barrier to Coombe beach. The man-made breach in the barrier is known as '*The Cut*'. A shallow waterbody with a maximum depth of 5m in winter (about 1.5m in summer), the lagoon is almost 3.7km long (north-south) and has a maximum width of 1.8km (east-west), and covers a maximum flooded area of about 450ha in winter. Sediments on the floor of the 'lake' vary from mud (north end) to coarse sand and gravel (south end). Analysis of lake sediments indicate that freshwater conditions prevailed from about 4,500 to 1,700 years ago, after which salt water began to wash in. Numerous granite boulders lie along the southeast shore. The barrier is composed of coarse-to-fine gravels underlying small wind-blown (aeolian) sand-dunes. There are two islands in the lagoon: Sgarbheen and Inish. Lady's Island, in the north part of the lagoon, is connected to the mainland by a causeway.

Built in 1862-64, the Gothic revival Church of the Assumption at Lady's Island hosts a variety of stone including Connemara Marble altar fittings, Carlow granite columns, Middleton red 'marble' pillars, Caen stone (Normandy), white Sicilian marble and limestone.

Site Importance – County Geological Site; recommended for Geological NHA

Lady's Island Lake provides a habitat to many species of plants and birds and is a designated SAC (000704) under the EU Habitats Directive. Lady's Island Lake SPA (004009) is one of the most important ornithological sites in the country for breeding, wintering and 'stopping-off' migrating birds. This is a very important County Geological Site because of the direct influence of the geomorphology on ornithology, aquatic fauna and rare plant species. It therefore requires recognition as a geological NHA.

Management/promotion issues

Since the mid-17th century, deliberate breaching of the sand and shingle barrier ('*Cutting the Lake*') has been carried out to relieve flooding around the area. This practice is overseen by the National Parks and Wildlife Service, in association with the Lady's Island Lake Drainage Committee.



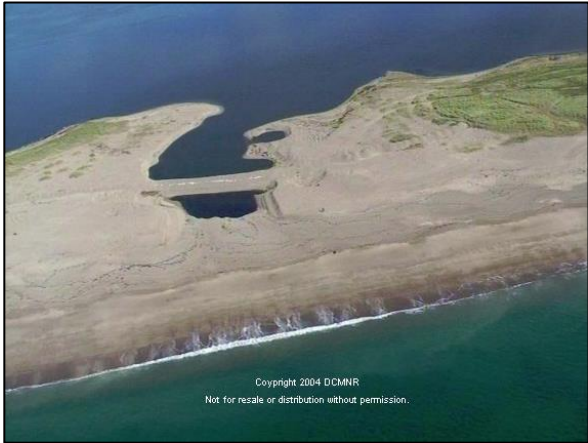
Lady's Island Lake viewed looking south from Lady's Island village.



Granite boulders on the southeast shore.



Viewing point and public information sign at Lady's Island village looking south.



Outlet from Lady's Island Lake to sea through shingle barrier.*



Coombe Beach sand and shingle barrier looking east.

* Image: Office of Public Works Coast of Ireland Aerial Oblique Imagery Survey 2003. Permission to reproduce acknowledged.

