

# WEXFORD - COUNTY GEOLOGICAL SITE REPORT

<b>NAME OF SITE</b>	<b>Tacumshin Lake</b>
Other names used for site	Tacumshane, <i>Loch Sáile</i>
<b>IGH THEME</b>	<b>IGH13 Coastal Geomorphology, IGH14 Fluvial and Lacustrine Geomorphology</b>
<b>TOWNLAND(S)</b>	<b>Numerous townlands bordering lake</b>
<b>NEAREST TOWN/VILLAGE</b>	<b>Tomhaggard</b>
<b>SIX INCH MAP NUMBER</b>	<b>47, 52, 53</b>
<b>ITM CO-ORDINATES</b>	<b>705522E 606228N (centre of feature)</b>
<b>1:50,000 O.S. SHEET NUMBER</b>	<b>77 GSI BEDROCK 1:100,000 SHEET NO. 23</b>

## Outline Site Description

A shallow tidal lagoon, separated from the sea by a shingle bank and dunes.

## Geological System/Age and Primary Rock Type

The waterbody, originally a small bay, now a lagoon, is Holocene in age and formed in post-glacial times. The lagoon overlies Precambrian amphibolites and gneiss bedrock (Rosslare Complex) and Caledonian granites (Saltee Islands Granite and Carnsore Granite).

## Main Geological or Geomorphological Interest

Located about 1 kilometre southeast of Tomhaggard, this is a shallow coastal waterbody covering an area of about 3km<sup>2</sup>. The lagoon is separated from the sea by a wedge-shaped sand and shingle barrier that extends eastwards along this gently-curving coast to Carnsore Point. The Irish name for the lake, *Loch Sáile*, accurately alludes to the saline nature of the lake.

Once a shallow bay, the waterbody was gradually cut off from the sea by a sand and shingle spit, formed due to longshore drift and extended westwards across the mouth the bay. The barrier has undergone numerous human-induced changes since about 1840, with the cutting of sluiceways (1860, 1974) and inlets (pre-1925); and the western Mountpill Burrows dunes effectively disappearing. Much of this was carried out to relieve flooding of surrounding farmland and to alleviate winter flooding when inflow from streams is greater than outflow through the seaward drainage pipes.

The sand and shingle barrier along this coastline exhibits evidence of landward (transgressive) migration of the barrier, as is the case near Carnsore where lagoonal clay bed sediments are overlain by overwash sands and gravel.

## Site Importance – County Geological Site

This is an important County Geological Site. Tacumshin Lake is a designated SAC (000709) under Annex I of the EU Habitats Directive (sedimentary lagoon, stony banks, embryonic shifting dunes, marram dunes) and an SPA (004092) listed under the EU Birds Directive.

## Management/promotion issues

The lake and barrier are in private ownership, and those accessing the site should take this into consideration. Tacumshin Lake SPA is one of the most important ornithological sites in the country. Further drainage system developments may impact the lagoon habitat. In recent times, the lagoon and sand dunes have undergone recreational activity induced damage (horse riding, vehicle driving). The significant influence of the coastal geomorphology on the habitats here, and at Lady's Island Lake, should be included in future ornithological publications on the area.



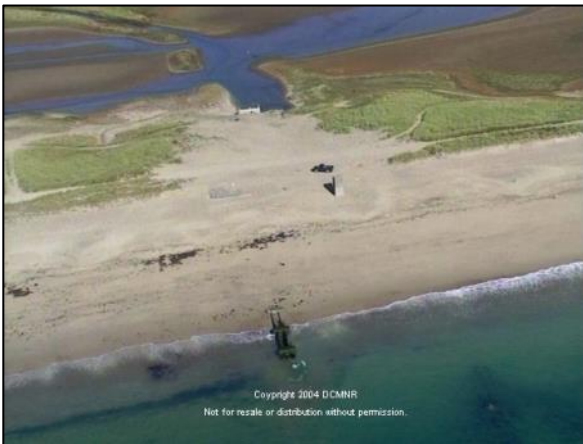
Tacumshin Lake viewed looking south, seaward.



Barrier at south end of Tacumshin Lake.



Northwest part of Tacumshin Lake viewed from Sigganstown.



Outlet from Tacumshin Lake to sea through barrier.\*



Sand and shingle shoreline between Tacumshin and Lady's Island Lake.

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

