WEXFORD - COUNTY GEOLOGICAL SITE REPORT

NAME OF SITE	**Screen Hills**
Other names used for site	Screen Hills kame-moraine, Screen Hills moraine, the Wexford gravels, the Wexford manure (or manurial) gravels
IGH THEME	**IGH7 Quaternary**
TOWNLAND(S)	**Kilmacoe, Ballinesker, Ballaghablake, Ballinacoola, Glenbough, Ballyhowbeg, Ballymore, Ballyheige, Ballylemin, Glebe, Ballinrooaun, Ballinra, Ballyvalloo Upper, Ballyvalloo Lower, Barnariddery**
NEAREST TOWN/VILLAGE	**Curracloe**
SIX INCH MAP NUMBER	**33**
ITM CO-ORDINATES	**710325E 629600N (centre of hills)**
1:50,000 O.S. SHEET NUMBER	**77 GSI BEDROCK 1:100,000 SHEET NO. 19**

Outline Site Description
The Screen Hills area in Wexford is approximately 5 kilometres east-west by 5 kilometres north-south, and is comprised of glaciofluvial and glaciolacustrine sands and gravels which form a hummocky region, approximately 20m-30m above the surrounding land to the west, north and south.

Geological System/Age and Primary Rock Type
The Screen Hills is underlain principally by bedrock comprising Cambrian greywackes and slates in the north, and impure, Lower Carboniferous limestones in the south. The hills themselves were formed in the Quaternary Period, at the end of the Ice Age, when ice was retreating across the locality and producing vast amounts of meltwater.

Main Geological or Geomorphological Interest
The area comprising the Screen Hills consists of a large sand and gravel body, which forms one of the largest sand and gravel aquifers in Ireland. Boreholes into the gravel body have confirmed depths-to-bedrock, predominantly through gravels, of up to 70m thick; these are therefore some of the deepest glacial sediments in the country.

This is an area of rolling kame and kettle-type topography which is often characterised by steep slopes, discontinuous ridges and enclosed depressions. Extensive coastal exposures show a general coarsening-upwards sequence of mud, sand, gravel and diamict, influenced by ice thrusting and gravitational loading, and displaying magnificent glacio-dynamic structures. The pitted nature of the locality is a result of blocks of dead ice melting at the end of the ice age.

The presence of molluscs within the gravels has long been noted in the Quaternary literature, with over 130 individual species found. The sediments themselves have been interpreted by various authors as deposited into a large body of water; either interglacial marine, glaciolacustrine, or glaciomarine.

Site Importance - County Geological Site; recommended for Geological NHA
The site is unique in the number and variety of kame and kettle forms which lie side by side in a relatively small area. The site is of international importance.

Management/promotion issues
This is an excellent site in terms of macro-scale Quaternary glacial geomorphology and should be promoted as unique amongst landscape elements, within both the Wexford County Development Plan, and in Landscape Characterisation. The most prominent kames, in terms of elevation and scale, should be protected.

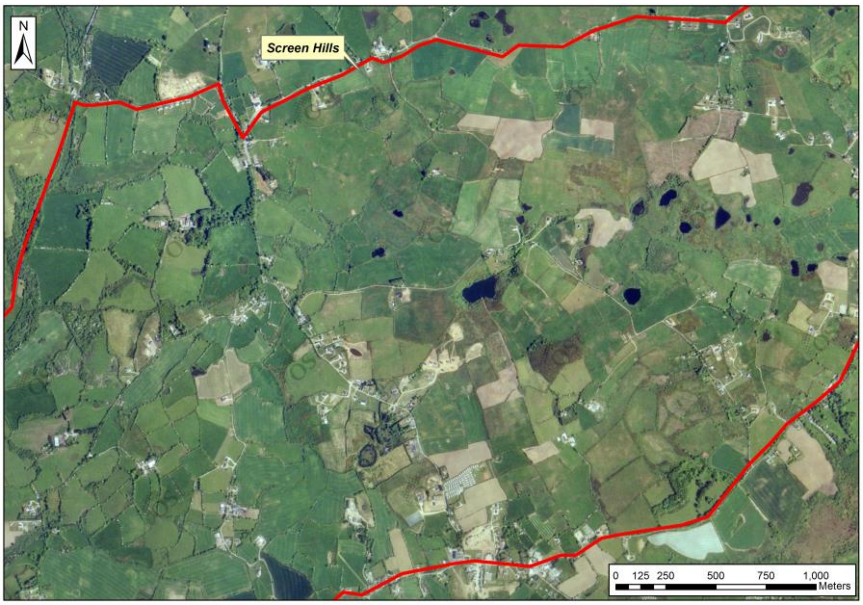
Extensive sand pit at Ballinrooaun, Castle Ellis, Screen.

The kame and kettle topography of the Screen Hills locality; here viewed from Glebe, near Screen, looking southwest.

Kettle lakes at Ballinrooaun.

Deep, lake-filled kettle hole at Ballyvalloo.


Screen Hills
Castlebridge
Droichead an Chaisleáin
Curracloe
Currach Clo
Wexfor
© Ordnance Survey Ireland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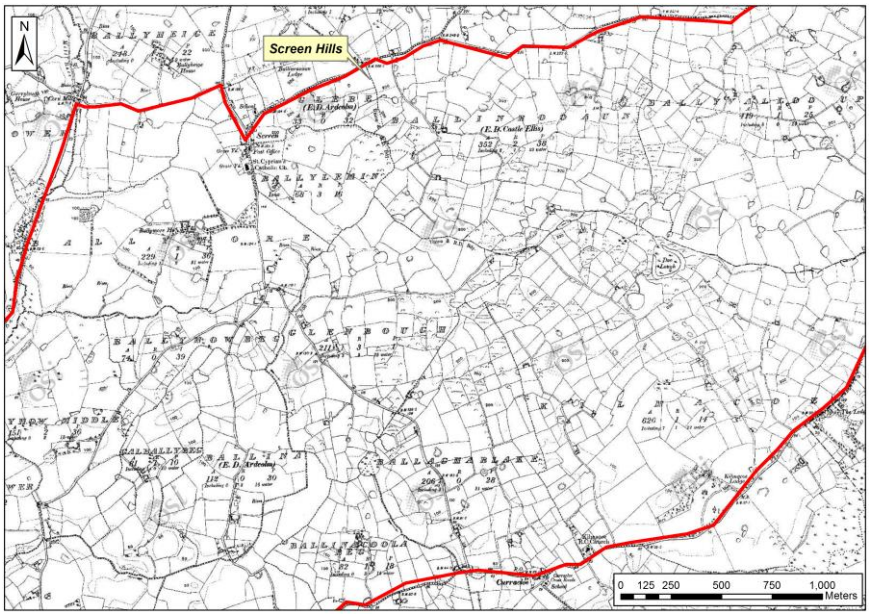
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