MAYO - COUNTY GEOLOGICAL SITE REPORT

NAME OF SITE	**Killala Area**
Other names used for site	
IGH THEME	**IGH7 Quaternary**
TOWNLAND(S)	**Townpotts East, Killala, Tawnaghmore Lower, Mullaghfarry, Tawnaghmore Upper, Meelick, Kilroe, Moyne, Crosspatrick, Lisglennon, Ballinteean, Carrowreagh. Abbeylands, Rathglass East, Rusheens, Newtownwhite, Knockalough, Derreens, Rosserk, Ballysakeery**
NEAREST TOWN/VILLAGE	**Killala**
SIX INCH MAP NUMBER	**22, 30**
ITM CO-ORDINATES	**522370E 827000N**
1:50,000 O.S. SHEET NO. 24	**GSI BEDROCK 1:100,000 SHEET NO. 6**
GIS Code MO068	

Outline Site Description
The site comprises an extensive area of ridges and glacial features on the west side of the Moy Estuary.

Geological System/Age and Primary Rock Type
These features are Quaternary in age. Bedrock comprises Carboniferous (Ballina Limestones) limestones, sandstone, and shale.

Main Geological or Geomorphological Interest
This field of discrete glaciotectonic ridges and interspersed glacial features form a body of tectonised proglacial features west of the Moy Estuary, in a coastal embayment. The site covers an area ~7km wide (west-east) at its widest point, along a coastal strip of almost 5km north-south, on the western side of the estuary, and includes numerous ridge features.

The ridge features contain significant bedrock outcrops, as well as tectonised, ground-up, and generally bouldery tectonite (tectonically deformed rocks). They occur on both pure and impure bedded limestones, and the deposition of the subglacial bedforms is understood to be linked to the hydrogeology of the underlying bedrock. The cliffs of the east side of Kilcummin Head exhibit a remarkable cross section through a glacio-tectonic thrust, where slabs of bedrock up to 300m long were dislodged and transported north by the ice. This main thrust sheet is covered by bouldery, sandstone-dominant, de-glacial-phase diamicts enclosing “floating” rafts.

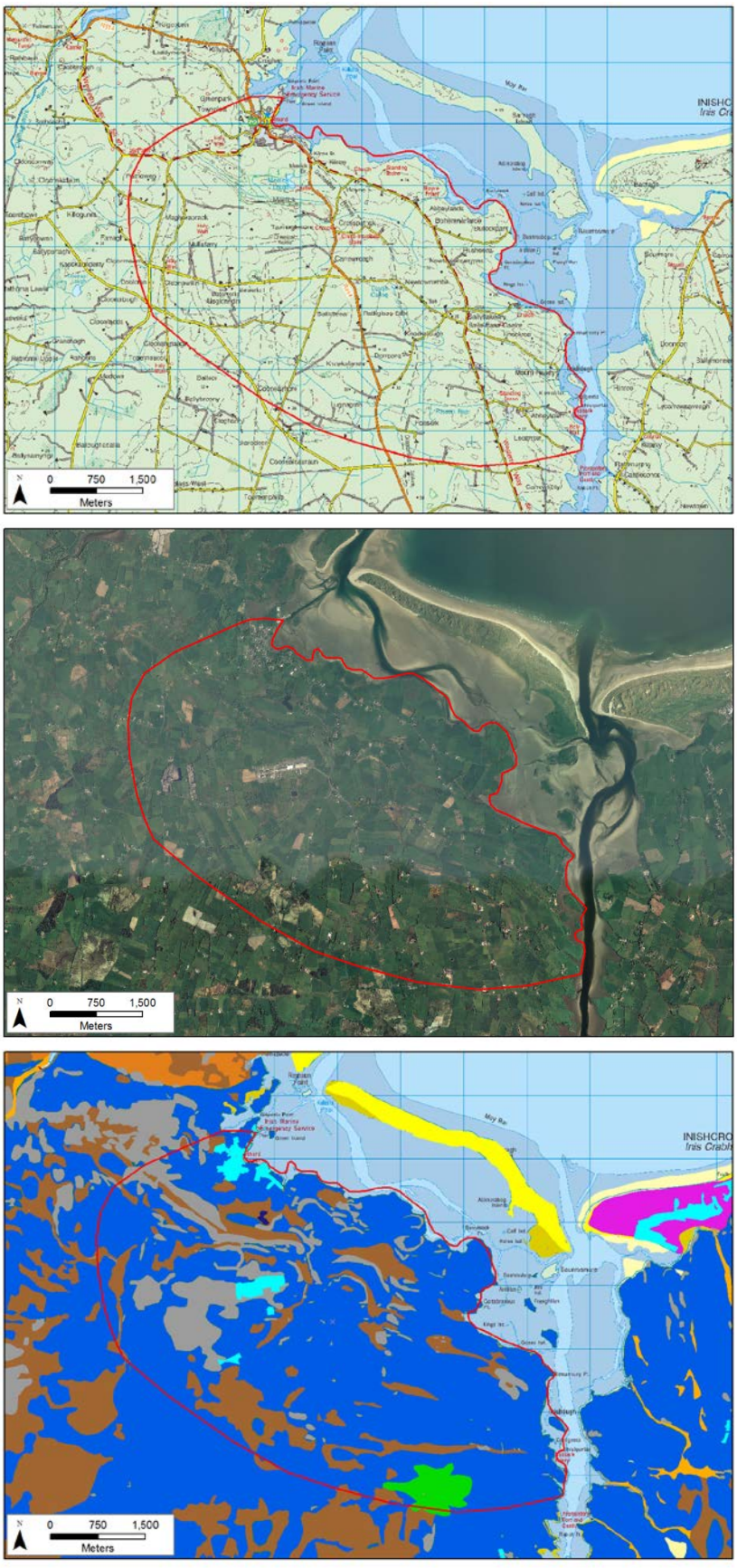
Site Importance – County Geological Site
The features at this County Geological Site are remarkable examples of glaciotectonic ridges. Some of the coastal exposures of these features are within the Killala Bay/Moy Estuary SAC (000458).

Management/promotion issues
These features are so large, that there are no threats that should dramatically alter their overall geometry or configuration.

East-west trending ridge at Tawnaghmore, 2km south of Killala.

East side of Kilcummin head looking north to site of glaciotectonic thrust.

Ridge of glacial deposits by the R314 Ballina-Killala road.



This map shows the subsoils geology. The areas of blue are of limestone till, which is the material the majority of the ridges are comprised of. Areas of bedrock outcrop also occur in the ridges (grey). The brown colour shows peat, which has formed between the ridges. Cyan shows areas of 'manmade' ground, at Killala Town and industrial areas. Green areas are sorted sands and gravels.

Hennessy et al. 2014 (revised 2019). Geological Survey Ireland.