

SOUTH DUBLIN - COUNTY GEOLOGICAL SITE REPORT

NAME OF SITE	Lucan Esker
Other names used for site	Also part of the ' <i>Slí Mhór</i> ', or ' <i>Eiscir Riada</i> '
IGH THEME	IGH7 Quaternary
TOWNLAND(S)	Lucan and Pettycanon, Esker South
NEAREST TOWN/VILLAGE	Lucan
SIX INCH MAP NUMBER	17
ITM CO-ORDINATES	703500E 734630N (centre of feature)
1:50,000 O.S. SHEET NUMBER	50
GSI BEDROCK 1:100,000 SHEET NO.	16

Outline Site Description

The Lucan Esker includes a large accumulation of sands and gravels deposited both under the ice sheet and at its margin as the ice withdrew northwestwards across west Dublin at the end of the last Ice Age.

Geological System/Age and Primary Rock Type

The Lucan Esker is formed within an area of Lower Carboniferous limestone, but the esker itself is Quaternary in age, having been deposited either under or at the edge of the northwestward-retreating ice sheet during deglaciation after the last Ice Age.

Main Geological or Geomorphological Interest

Much of the esker itself has been removed by historical quarrying of its constituent sands and gravels, so only fragments of the feature remain intact. Where present the esker ridge is a striking feature, standing proud of the flat landscape of till (boulder clay) upon which it was deposited. Intact portions adjacent to Esker Glebe in Griffeen Valley Park, and at Vesey Estate near the Griffeen River, are especially impressive. Both localities are comprised of raised, elevated areas of sands and gravels, which might look upon first inspection to be mounds of artificially-landscaped ground, but are in fact steep, winding slopes of the original delta form.

The feature is also important in a historical and cultural sense in Lucan, as the townlands of Esker North and Esker South, as well as Esker House, Esker Bridge, Esker Cottage and Esker Cemetery, were all named after the feature. Several modern-day estates, such as Esker Glebe, and the main arterial route Esker Road, have followed suit, and St. Patrick's Parish church at Lucan is called Esker Church. Griffeen Road, oriented northwest to southeast, sits atop the original esker feature.

The esker feature is important in that it records faithfully the ice movement across this area of West Dublin, which is along its orientation, *i.e.* northwest to southeast. The sands and gravels within the feature are comprised chiefly of limestone clasts.

Site Importance – County Geological Site

What remains of the feature is still a striking example of a high, dry sand and gravel ridge that stands proud of the surrounding landscape. This is a good example of a deglacial, meltwater-deposited feature, with portions deposited under the ice, and portions at the ice margin.

Management/promotion issues

This system comprises a well-defined landform sequence and should be listed as a County Geological Site. A signboard within Griffeen Valley Park, where the feature can be well seen and where there are already several signboards, might help promote the feature. In this, the naming of several sites in the area after the esker is important to mention.



Broadleaved Woodland on the Lucan Esker in Griffeen Valley Park.



Some of the winding portion of the extant Lucan Esker ridge, beside the Esker Glebe estate, and just south of the M4.



View northwest along the steep-sided Lucan Esker in Griffeen Valley Park.



Many of the placenames in the Lucan locality are 'Esker' derivatives.



