### **LEITRIM - COUNTY GEOLOGICAL SITE REPORT**

NAME OF SITE Glencar Waterfall
Other names used for site The Devil's Chimney

IGH THEME IGH7 Quaternary, IGH14 Fluvial and Lacustrine

Geomorphology, IGH1 Karst

TOWNLAND(S) Formoyle, Largandoon

NEAREST TOWN/VILLAGE Manorhamilton

SIX INCH MAP NUMBER 6

ITM CO-ORDINATES 576085E 843640N

1:50,000 O.S. SHEET NUMBER 16 GSI BEDROCK 1:100,000 SHEET NO. 7

**GISCODE LM015** 

## **Outline Site Description**

Glencar Waterfall is a spectacular waterfall which spills over the shoulder of a cliffed side to a deep, glacial, U-shaped valley.

# Geological System/Age and Primary Rock Type

The bedrock is Mississippian (Lower Carboniferous) interbedded limestone and shale of the Glencar Limestone Formation (c. 330 Ma). The glacial U-shaped valley is Quaternary in age, and the waterfall itself is likely to have been present at this location only since glacier ice retreated from the area, approx. 14,000 years ago.

### **Main Geological or Geomorphological Interest**

The Glencar Valley is a fine example of glacial erosion, where accumulated ice has scoured out a deep valley, with steep, cliffed sidewalls. The waterfall along the edge of the valley flows over alternating layers of shale and limestone, and the interbedded rock types are clearly seen in the rock behind the waterfall.

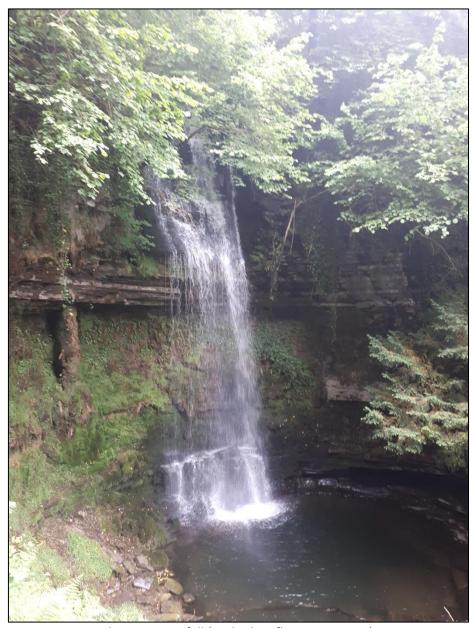
As the water in the waterfall is highly calcareous, a tufa curtain has formed across a portion of the waterfall area. Tufa is usually formed via the precipitation of calcium carbonate, and is spongy or porous in nature. The tufa curtain is vegetated, with much of the vegetation calcified.

#### Site Importance – County Geological Site

The waterfall is a beautiful example of how a powerful stream can cascade over the edge of a glacial valley, and is worthy of County Geological Site status.

# Management/promotion issues

Glencar Waterfall is within the Ben Bulben, Gleniff and Glenade Complex SAC and proposed NHA. The site is popular with tourists and walkers and the site is well-served by the council car park near its base. An excellent sign-board in the car park illustrates how the waterfall formed, and has several references to geology. From the car park a short gravel pathway leads to a staircase that travels up past the waterfall. The site is well sign-posted in the region and no further promotion is necessary. At the car park there are also toilets, picnic tables and a coffee shop.



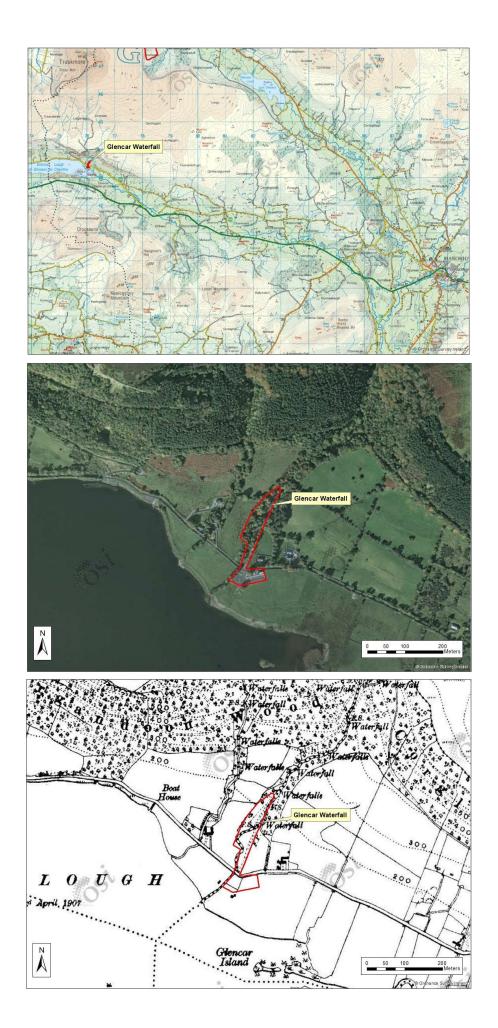
Glencar Waterfall (under low flow, June 2020).



The tufa curtain hanging over alternating limestone and shale beds at the western end of the waterfall.



The walkway, steps and signboards at Glencar Waterfall.



Parkes et al., 2020. Geological Survey Ireland.