





#EUWaterWise

See Water Differently This series has been WATERFALL

Over the last few weeks we have rediscovered the wonder of freshwater.

Starting with the river, then canal, and now we present the waterfall.

In this series we explored some fantastic waterfalls in Galway.

Tourmakeady

Aasleagh Falls

Lough Nafooey, aka Black Rock

Screebe

inspired by **#WaterWiseEU**

and it includes recorded footage from our own river, canal, and waterfall.

Thank you for creating an amazing journey.

For more info, see:

Follow the Aquarium

www.nationalaguarium.ie

Campaign

https://environment.ec.europa.eu/ topics/water/water-wise-eu_en

'Key Campaign Messages'











Tourmakeady Waterfall



Aasleagh Falls

Geological System/Age and Primary Rock Type

The valley is a Quaternary landscape feature, and landforms (kames, eskers) are considered to be Late Midlandian (~18,000 years ago) age.

Holocene (post-glacial) peats blanket the NE floor of the valley. Bedrock comprises Mweelrea Formation (Middle-Upper Ordovician) conglomerates, sandstones, and ignimbrites.

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



Lough Nafooey Waterfall

Geological System/Age and Primary Rock Type

The waterfall descends over Mweelrea Formation (Ordovician, Darriwilian. Llanvirn in older terminology) fluviatile boulder-rich conglomerates and coarse grained sandstones.

Meehan et al. 2019. Geological Survey Ireland.





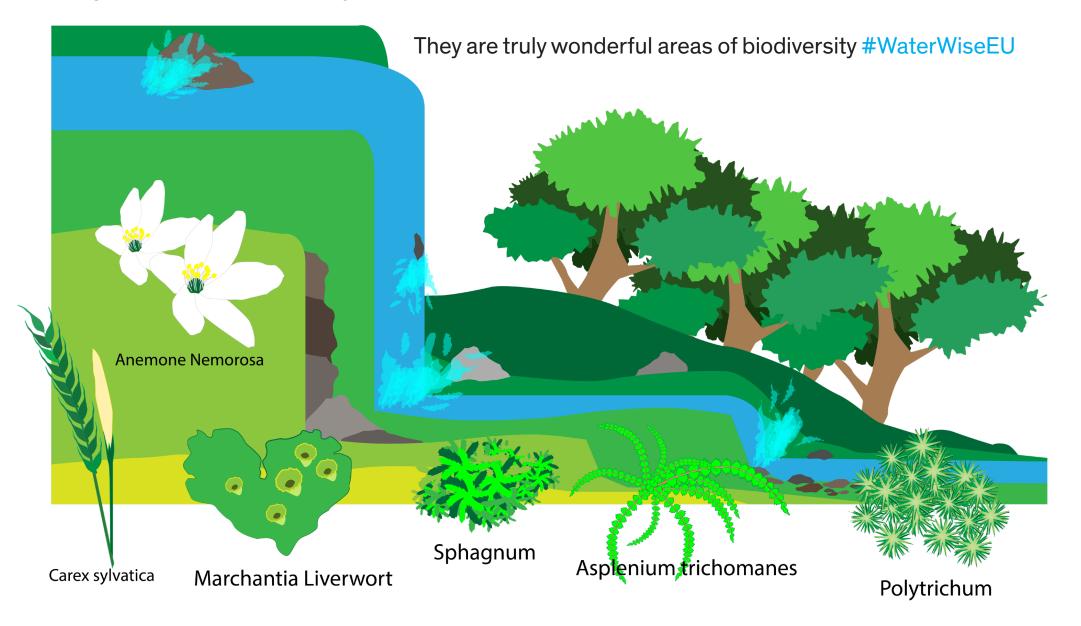
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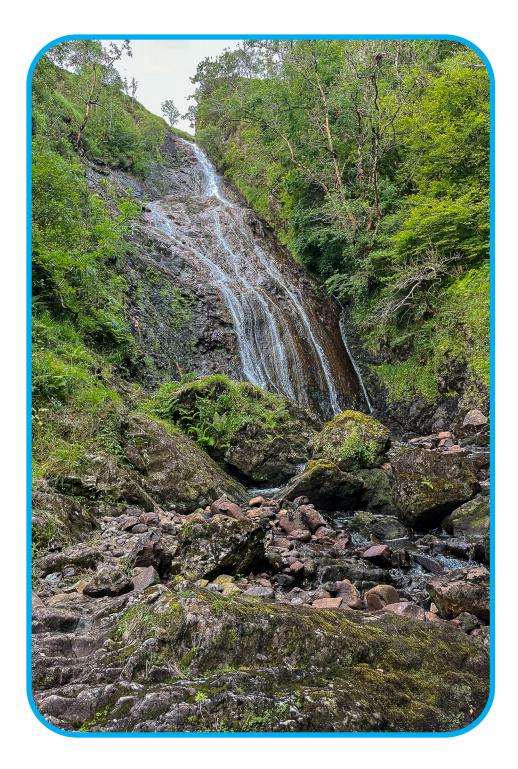
Microclimates and Ecological Importance The microclimate around waterfalls creates a unique habitat that supports a rich diversity of plant life. The constant spray of water creates high humidity levels, which can support species not typically found in other environments. Additionally, the presence of waterfalls often creates a cooler microclimate, allowing certain cold-tolerant species to thrive.

Sreebe Waterfall



Ireland's waterfalls provide a unique and diverse habitat supporting a range of mosses, ferns, flowering plants, algae, lichens, trees, shrubs, and grasses. The constant moisture and specific microclimates around waterfalls create ideal conditions for these plant species, making waterfalls important ecological zones for biodiversity in Ireland.





Thank you for following our 'See Water Differently Campaign.

Now we have a database of images and biodiversity from our freshwater sources, the next logical step is to transform these images into educational materials, tours, talks, and walks.

Given the fact that freshwater is vulnerable to Climate Crisis, Pollution, and Biodiversity loss there is a need to communicate these concepts into practical steps we can take to mitigate these issues.

The Water Cycle, Water Table, Ocean Literacy, Citizen Science are great conversation starters. If we can engage, inspire and educate people about freshwater, then all this campaigning would be worth it.

With this campaign we have generated a large amount of grey material that can be reused to refresh the campaign over the next few months. We hope you will join us as we See Water Differently.

<u>Galway is county of two contrasting halves*.</u>

East Galway is dominated by plains, with bedrock of Carboniferous Limestone underlying. The limestone is heavily karstified in places, often showing evidence of pre-glacial weathering processes.

Groundwater is important in this area, with many turloughs.

A thin veneer of glacial sediments masks some of the older landscape features but limestone walls and rich grassland are evidence that there are relatively few drumlin fields like counties to the east and north.

Only in the south, in Slieve Aughty, are there older Silurian and Devonian rocks exposed in the uplands.

The western half of Galway is by contrast, incredibly geologically diverse.

The oldest, Precambrian, rocks are highly deformed, and form the backbone of Connemara.

They are known as the Dalradian inlier and are part of an assemblage of ancient crustal segments, or terranes, which were assembled during the Silurian to form the shape of Ireland that we know today.

Ordovician and Silurian rocks from marine environments form north Galway (and South Mayo) are faulted against Connemara. To the south of the Twelve Bens and Maumturk metamorphic spine, there is a massive area of Devonian granite intrusions in south Connemara, which reveal a very complex history.

Glacial erosion shaped the mountains, and glacial deposits drape the lower ground. The power of the sea and the resistance of different rocks has been a significant control on the shape of the Galway coast, and its islands.

https://gsi.geodata.gov.ie/downloads/Geoheritage/Reports/Galway_Audit.pdf

*Galway Atlantaquaria would like to create signage that includes more Geoscience. While this report includes some Geo information we will explore ways to redevelop these images into a much better presentation of Galway's greatest asset, its Geology.

WATERFALL

www.nationalaquarium.ie



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