

Questionnaire for landowners:

Do you have a karst landform on your land?

Do you have a well?

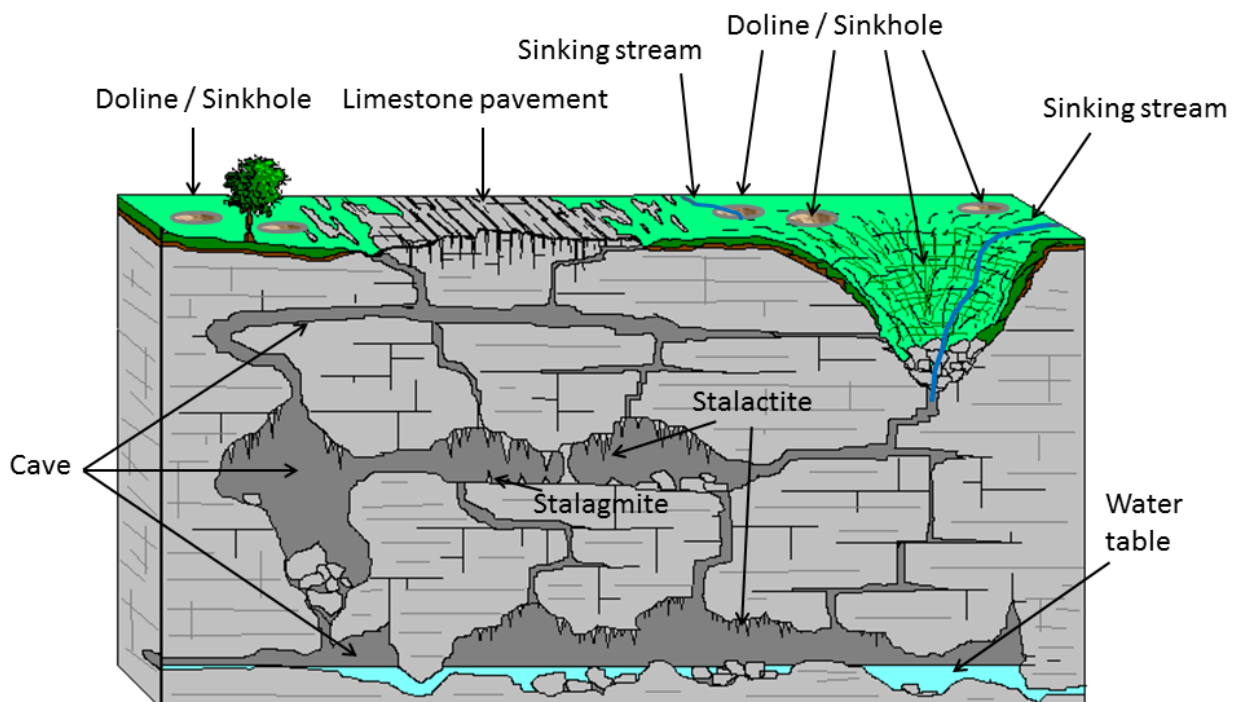
Introduction

As part of the Lough Carra LIFE project, Geological Survey Ireland, a division of the Department of the Environment, Climate and Communications, is trying to understand the groundwater catchment to Lough Carra. Knowledge of karst landforms is critical to our understanding of how groundwater moves within the catchment. **Please help us by letting us know if you have any karst features on your land.**

Mapping the groundwater levels within the catchment will also improve our understanding. Hydrogeologists use water level measurements from wells to create a 'water table' map. **If you have an accessible well on your land, please let us know.**

What is karst?

Karst is a landscape with distinctive hydrology and landforms that arise when the underlying rock is soluble. In Ireland, karst landscapes are found in areas underlain by limestone bedrock. Karst landforms arise when circulating water dissolves the rock creating voids.



In karst environments, characteristic landforms can be found both on the surface and below ground. Surface landforms commonly include enclosed depressions, sinkholes, sinking streams and springs. Underground landforms include caves and features associated with caves.

Enclosed Depressions are the most common landforms found in karst. They range in diameter from a few metres to tens of kilometres and in depth from a few centimetres to hundreds of metres. The smallest of these features are called dolines (or sinkholes). In Ireland dolines are commonly small, bowl shaped, shallow depressions, often appearing as shallow ‘dimples’ on the land surface. Some of these dolines can be deep with vertical sides.



A **Swallow hole** is the location where a surface stream sinks underground. This can occur all at once or gradually over several metres or tens of metres, via features called losing streams. These are also known as sinking streams or sluggaires. Some swallow holes may only be active during heavy rain.



Springs occur where groundwater emerges at the ground surface. Karst springs are usually much bigger than springs in other rock types, and often have a highly variable flow rate and water quality. This is because water may be transmitted very rapidly and from greater distances underground to these springs. Karst spring flows can range from small seeps to flows of tens of thousands of gallons per hour (thousands of cubic metres per day).



Turloughs are seasonal lakes mostly found in central and western Ireland and are especially common in lowland karstic landscapes. They generally fill with water and become a lake in the winter or during high rainfall conditions, and empty during the summer.



A **cave** is a natural underground opening in rock large enough for a person to enter. Caves can be formed in any rock type. However, caves formed by karst processes are the largest, most numerous and most complex. Karst caves are formed by the dissolution of bedrock by circulating water.



Do you have a karst landform or a well on your land?

If so, please fill in the following form

Name	
Phone number (will only be used to contact you for more information)	
Type(s) of feature(s) (please use the description above as a guide)	
Location (grid reference or mark on a map, or you could send google pins by email)	
Townland	
Eircode of nearest property	
Is there ever any water sinking in or flowing out of the karst feature? (please give details)	
Description (size, depth etc.)	
Do you have a well on your land? Please give as much information as you know about it (e.g. when drilled and the driller; how deep it is; yield, and depths of any inflows)	
Where is the well?	

Completed forms can be posted to **Aisling Burke, Lough Carra LIFE Project, Environment Department, Mayo County Council, Aras an Chontae, The Mall, Castlebar, Co. Mayo, F23 WF90**, or via email to aburke@mayococo.ie or Caoimhe.Hickey@gsi.ie



We take your privacy seriously and are fully committed to keeping your information private. Personal data will never be published or shared with anyone else without your permission.

The contact information will be used solely by Geological Survey Ireland staff and contractors to arrange access to sites to facilitate fieldwork operations. Fieldwork contact details data will be held for the duration of the fieldwork campaign plus three years.

Karst feature or well location and other groundwater details are published on the Geological Survey Ireland data viewers and in Geological Survey Ireland databases.

If you would prefer that your well is **not** displayed on Geological Survey Ireland data viewers, or included in publicly-available databases, please tick here:

Your rights

You have the right to request to see a copy of the information we hold about you and to request corrections or deletions of the information. You can ask the Geological Survey Ireland to stop using your data at any time, in which case it will be deleted.

Please take time to read our data privacy notice.

https://www.gsi.ie/documents/GSI_Data_Privacy_Notice.pdf

This document outlines our approach to Data Privacy to fulfil our obligations under the General Data Protection Regulation (2018) and the Data Protection Acts 1998-2018.

If you would like your information updated or removed or
If you have any questions regarding our privacy practices please

Email: info@gsi.ie

Write to: GDPR Manager, Geological Survey Ireland, Block 1, Booterstown Hall, Booterstown, Blackrock, Co Dublin, Ireland, A94 N2R6

Phone: 01 678 2896

For more information on karst visit <https://www.gsi.ie/en-ie/programmes-and-projects/groundwater/activities/understanding-irish-karst/Pages/default.aspx>

Or email: Caoimhe.hickey@gsi.ie

ⁱ Source of images: Geological Survey Ireland