

Guidance Note:

# Enquiries Relating to Regional Groundwater Aquifer and Vulnerability Classification – Use of GSNI GeoIndex

Update April 2018

## Background

Information relating to groundwater aquifer classification, superficial aquifers and groundwater vulnerability is available online directly from the Geological Survey of Northern Ireland's (GSNI) GeoIndex website:

[http://mapapps2.bgs.ac.uk/GSNI\\_Geoindex/home.html](http://mapapps2.bgs.ac.uk/GSNI_Geoindex/home.html)

If seeking information in relation to the preparation of an environmental assessment i.e. a hydrogeological or water features survey, then it should be noted that other third party stakeholder organisations should also be contacted, in addition to the Northern Ireland Environment Agency and the Geological Survey of Northern Ireland as they might also hold relevant information.

Furthermore, a prudent assessment would also usually include, as a minimum, a site visit in order to verify the information collated.

The information hosted on the GeoIndex is used by both the Northern Ireland Environment Agency Water Management Unit (NIEA WMU) and the GSNI when responding to general enquiries requesting hydrogeological information.



The GeoIndex portal allows the user to view and search the GSNI data holdings. A data enquiry form (trolley icon, top right) can also be submitted via the GeoIndex for further details on datasets.



In addition to hydrogeological information, the GeoIndex portal also hosts a range of other GSNI datasets including:

- 1:250,000 bedrock, structural and superficial geology;
- Soil, water and sediment geochemistry;
- Regional geophysical survey results including magnetic, electromagnetic, radiometric and gravity datasets;
- Active quarry locations;
- Recorded mineral occurrences; and
- Mineral and mining licence information.

### **Using the GeoIndex**

The GeoIndex portal is located at:

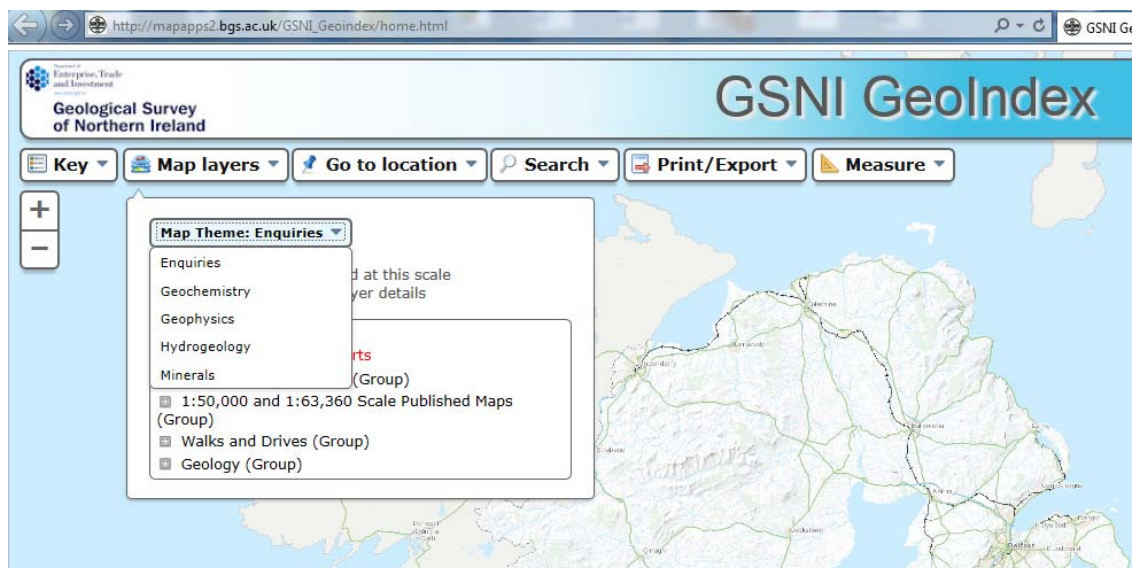
[http://mapapps2.bgs.ac.uk/GSNI\\_Geoindex/home.html](http://mapapps2.bgs.ac.uk/GSNI_Geoindex/home.html)

The GeoIndex provides the option of viewing datasets under 5 different topic areas (referred to as themes), namely:

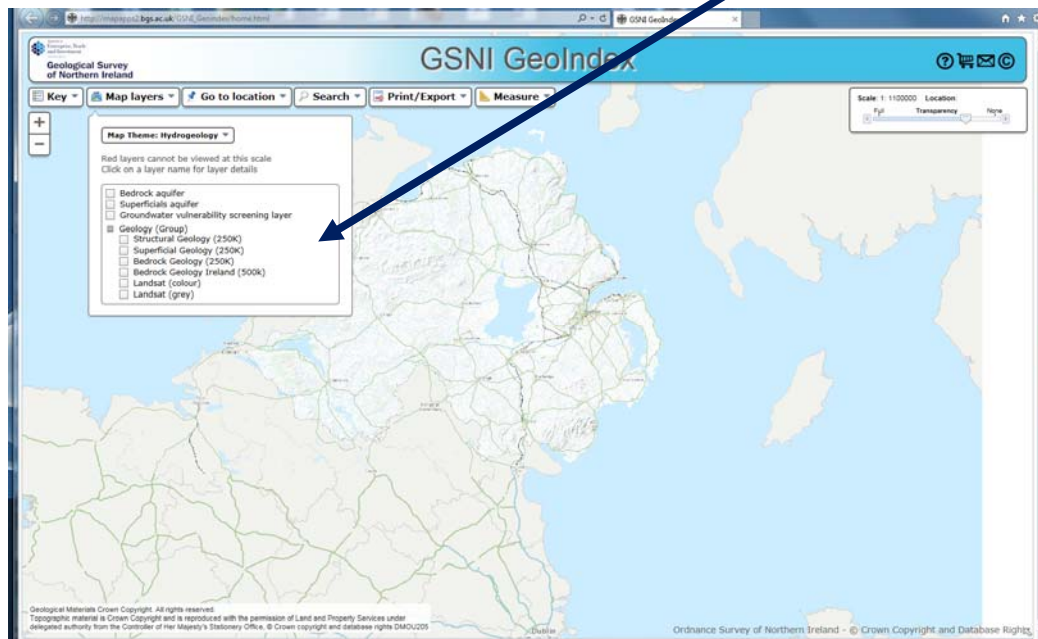
- Enquiries;
- Geochemistry;
- Geophysics;
- Hydrogeology; and
- Minerals.

**It should be noted however, that the information as presented on the GeoIndex portal is based on regional assessment of datasets, and cannot be directly used to determine site specific conditions without further supporting investigation and interpretation.**

The default map theme is “enquiries” but to select one of the other 4 listed above use the map layers drop down menu located below the GSNI GeoIndex title, to change it.




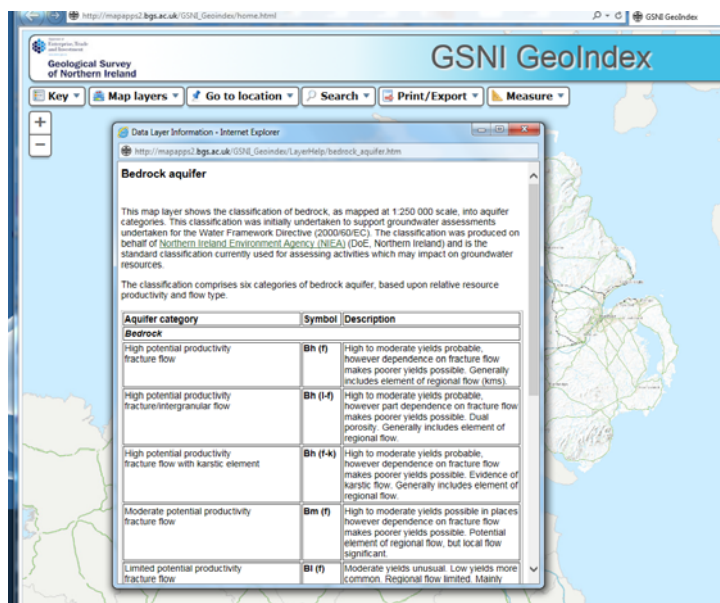
As you toggle through the 5 map themes, you will notice the map contents on the left hand side of the page changing.



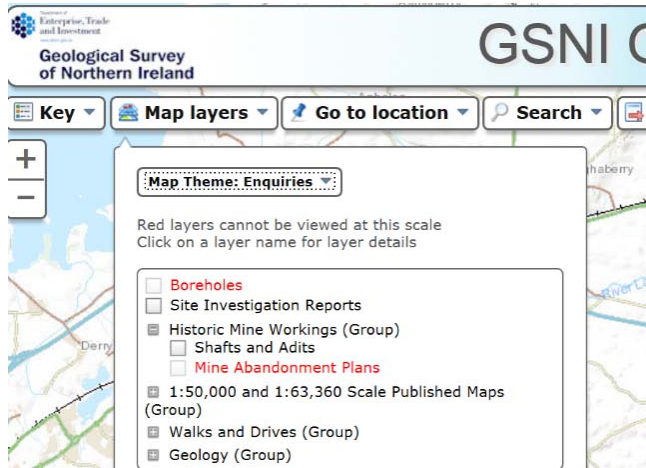
### Map Contents:

Data can be viewed regionally by zooming in and out (+ / -), or site specific searches can be carried out using the Go to Location or Search options on the top toolbar. Go to Location allows the map to zoom to a known location using co-ordinates or town/street name. Search allows a rectangle/polygon to be drawn and results for some selected layers to be shown in a table.

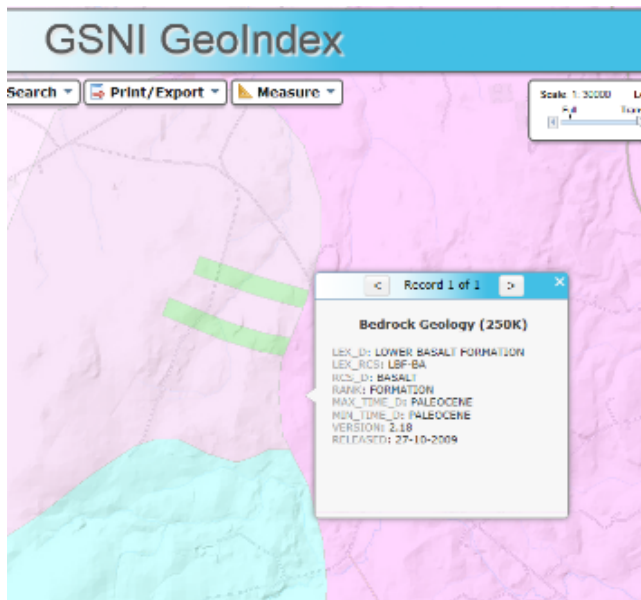
Map content items can be expanded  within the contents box, and if any further explanatory detail is needed on a particular map item, then click on the data set name in the map contents box and a pop-up will appear.



Example pop up window



Depending on the resolution, some of the datasets may be written in red and cannot be viewed. This means the current view level is beyond the level of detail appropriate to the data set, use the zoom function until the writing changes to black when the data set can be viewed.



Clicking on the map with layers displayed will also give more information about dataset

An option to Print and Export results is available, as is the ability to Measure the length or area.

As previously highlighted, users should note that information as presented on the GeoIndex portal is based on regional assessment of datasets, and should not be directly used to determine site specific conditions.

## Enquiries

There is also an Enquiries option under the map theme drop down menu, where information about the listed datasets can be requested e.g. borehole records.

It should be noted that the boreholes recorded do not relate to specific water abstractions, but instead represent records of boreholes, shafts and wells from all forms of drilling and site investigation work that have been collected by GSNI over the years. They are approximately 24,000 records dating back over 200 years and ranging between one and several thousand metres deep. New records are being added to the collection each year and will be included in the GeoIndex each it is updated. Depending on the circumstances of the request, there is usually a charge for these data sets (unless for academic use), but further details can be obtained by contacting GSNI - [gsni@economy-ni.gov.uk](mailto:gsni@economy-ni.gov.uk)

If information relating to licensed water abstraction boreholes is required, then this information can be obtained by contacting [AII@daera-ni.gov.uk](mailto:AII@daera-ni.gov.uk).

## **Further Guidance –**

NIEA Groundwater Web Page - <https://www.daera-ni.gov.uk/articles/groundwater>

NIEA – Assessment of Environmental Impact (Water Resources) Mineral Workings Advice Notice - <https://www.daera-ni.gov.uk/publications/assessment-environmental-impact-water-resources-mineral-workings-advice-note>

NIEA – Cemeteries, Burials and the Water Environment - [https://www.planningni.gov.uk/index/advice/northern\\_ireland\\_environment\\_agency\\_guidance/practice\\_guide\\_-\\_cemeteries\\_burials\\_and\\_the\\_water\\_environment.pdf](https://www.planningni.gov.uk/index/advice/northern_ireland_environment_agency_guidance/practice_guide_-_cemeteries_burials_and_the_water_environment.pdf)

NIEA – Water Features Survey - [https://www.planningni.gov.uk/index/advice/northern\\_ireland\\_environment\\_agency\\_guidance/water\\_features\\_surveys.pdf](https://www.planningni.gov.uk/index/advice/northern_ireland_environment_agency_guidance/water_features_surveys.pdf)

NIEA – Windfarms and Groundwater Impacts - <https://www.daera-ni.gov.uk/publications/best-practice-guidance-documents>

DAERA – WMU Digital Dataset Downloads - <https://www.daera-ni.gov.uk/articles/wmu-digital-dataset-downloads>