

About the QGIS Layer Files

Seven separate layer files are provided for the services available from GNS Science.

These layer files provide an easy way to consume the Web Map, Tiled Web Map, and Feature services that are available. They are compatible with QGIS 3.4.5 and above.

The layer files available are:

- xxxxxx_WMS.qlr
- xxxxxx_Tiled_WMS.qlr
- xxxxxx_FeatureService_AllData.qlr
- xxxxxx_FeatureService_SelData.qlr
- xxxxxx_elevationModels_WMS.qlr
- xxxxxx_geologyAnno_WMS.qlr
- xxxxxx_topographicData_WMS.qlr

Each provides access to the different services which have different capabilities. No layer file is provided to connect to the WFS service as this has limitations in some versions of QGIS. You are able to connect direct to the WFS service at (<https://data.gns.cri.nz/gis/rest>) but the recommended alternative and more simple solution is to use the layer file for one of the Feature Services which provides the same functionality.

xxxxxxx_WMS.qlr

This is a layer file that sources a dynamic Web Map Service (WMS) which provides a symbolised view of the data. It is slower to draw than the Tiled WMS (see below) but provides you with the ability to turn off layers. You cannot change the scale dependent visibility or symbology. You can get access to the attributes associated with the visible features with the Identify tool, but you cannot see the attribute table or export the data.

xxxxxxx_Tiled_WMS.qlr

This is a layer file that sources a Tiled Web Map Service (WMTS) which provides a symbolised view of the data. It will be quicker to draw than other services but has very limited capabilities. As with the WMS you cannot change the scale dependent visibility or symbology, see the attribute table or export the data. In addition, you cannot choose what layers are displayed or use the Identify tool.

xxxxxxx_FeatureService_AllData.qlr

This is a layer file that sources a Feature Service that provides access to all the geological features available for this dataset. It is slower to draw than the WMS or WMTS but allows full control over visibility and symbology. Feature attributes can be accessed with the Identify tool and through the attribute table, and the data can be exported.

The symbology and scale dependent visibility for the service is set through the layer file but can be altered by the user. Because this service provides access to all the geological features and not only

the features that appear on the published map, the view can be cluttered in some areas. It is not possible for a user to create a definition query on a feature service in QGIS.

[xxxxxx_FeatureService_SelData.qlr](#)

This is a layer file that sources a Feature Service which provides access to the selection of geological features used to create the published map. The service has the same functionality as the Feature Service described above but can only access a subset of the data. It is slower to draw than the WMS or WMTS but provides full control over visibility and symbology. Feature attributes can be accessed with the Identify tool and through the attribute table, and the data can be exported.

The symbology and scale dependent visibility for the service is set through the layer file but can be altered by the user. A definition query has been placed on the services to display only those data included in the published map. It is not possible for the user to create a definition query on a feature service in QGIS.

[xxxxxx_elevationModels_WMS.qlr](#)

This is a layer file that sources a dynamic Web Map Service that provides a view of the elevation models used on the published map. Typically, it displays a hill-shaded model, but it may include bathymetry. It should be used as an addition to a Feature Service layer to create a more complete looking map (see details below).

[xxxxxx_geologyAnno_WMS.qlr](#)

This is a layer file that sources a dynamic Web Map Service that provides a view of the geological annotation used on the published map. Typically, it includes geological unit labels, fault and fold names and structure data annotation. It should be used as an addition to a Feature Service layer to create a more complete looking map (see details below).

[xxxxxx_topographicData_WMS.qlr](#)

This is a layer file that sources a dynamic Web Map Service that provides a view of the topographic data used on the published map. Typically, it includes roads, rivers and streams, and place names. It should be used as an addition to a Feature Service layer to create a more complete looking map (see details below).

[Creating a complete map when using a Feature Service](#)

To create a complete map when using one of the Feature Services place these layerfiles in your project in this order (from top to bottom in your Table of Contents).

- 1: xxxxx_geologyAnno_WMS.qlr
- 2: xxxxx_topographicData_WMS.qlr
- 3: xxxxx_FeatureServices_xxxData.qlr
- 4: xxxxx_elevationModels_WMS.qlr