

Using Web Services

Web Services Overview

This user guide contains instructions on how to consume a range of services through both web based and desktop GIS applications.

Web services are a live data stream and therefore require a fast and reliable internet connection. NZP&M publishes data as a web service using the [Open Geospatial Consortium](#) (OGC) Web Map Service (WMS) and Web Feature Service (WFS) standards, as well as [ESRI Feature Services](#).

OGC WMS/WFS are an open source standard of web service that can be used in a range of GIS applications. ESRI Feature Services are specific to the ArcGIS suite of applications.

NZP&M's web services are catalogued on our GIS portal:

<https://data.nzpam.govt.nz/portal/home/group.html?id=360990cc14614d8fa03049e56f3189fe#overview>

Here you will find a range of permit and technical data for petroleum and minerals. The method for accessing the data layers within a service differs slightly depending on the application you are using and the type of service you are trying to consume.

The screenshot shows the 'NZ Petroleum and Minerals Geodata Catalogue' interface. At the top, there is a blue header with the title and an 'Overview' button. Below the header, there are several sections:

- Edit thumbnail:** A section for editing the thumbnail, with a pencil icon and the text 'Public GIS layers from the New Zealand Petroleum and Minerals Geodata Catalogue. owned by MBI_E_Geospatial'. There is an 'Edit' button with a pencil icon.
- Description:** A section for editing the description, with a pencil icon and the text 'Description'. Below it, there is a paragraph: 'This group contains the publicly available GIS data for the **New Zealand Petroleum and Minerals (NZP&M) Geodata Catalogue** (<https://data.nzpam.govt.nz/>), a collection of free geoscience exploration data and reports. The geospatial datasets have been compiled from technical submissions provided to NZP&M by permit operators and others, as documented in the individual reports found in the NZP&M Geodata Catalogue. These datasets are intended to help assist industry and scientific community members in locating relevant information for a particular area. These data services are managed by the NZP&M Geoscience Information team. If you have any questions about these data, please contact us at geoscience.information@mbie.govt.nz (Point of Contact: Manager, Geoscience Information).' There is an 'Edit' button with a pencil icon.
- Recently added content:** A section with a 'View all group content' link. It displays a grid of seven content cards, each with the New Zealand Petroleum & Minerals logo and the following information:
 - Petroleum Permits:** by portaladmin, Created: Jul 15, 2019, Updated: Feb 22, 2023, View Count: 297,436.
 - Mineral Permits:** by MBI_E_Geospatial, Created: Apr 10, 2019, Updated: Feb 22, 2023, View Count: 751.
 - Mineral Permits:** by portaladmin, Created: Jul 15, 2019, Updated: Feb 22, 2023, View Count: 301,687.
 - NZ Petroleum and Minerals G...:** by MBI_E_Geospatial, Created: Dec 5, 2022, Updated: Feb 22, 2023, View Count: 0.
 - NZ Petroleum and Minerals G...:** by MBI_E_Geospatial, Created: Dec 2, 2022, Updated: Feb 22, 2023, View Count: 0.
 - NZ Petroleum and Minerals G...:** by MBI_E_Geospatial, Created: Dec 2, 2022, Updated: Feb 22, 2023, View Count: 27.
 - NZ Petroleum and Minerals G...:** by MBI_E_Geospatial, Created: Dec 5, 2022, Updated: Feb 22, 2023, View Count: 1.
 - NZ Petroleum and Minerals G...:** by MBI_E_Geospatial, Created: Dec 2, 2022, Updated: Feb 22, 2023, View Count: 0.

Accessing OGC Services and Esri Feature Layers

To access OGC WMS and WFS services, as well as Esri Feature Layers, open the corresponding portal item for the WFS, WMS, or Feature Layer and scroll down to the 'URL' section of the webpage. Copy this URL into the application that you would like to consume the WMS, WFS, or Feature Layer in.

NZ Petroleum and Minerals Geodata Catalogue Overview Settings

[Edit thumbnail](#)

 Geospatial web feature service provided by New Zealand Petroleum & Minerals related to resource exploration and mining in New Zealand. [Edit](#)

WFS by MBIE_Geospatial

Created: Dec 5, 2022 Updated: Feb 22, 2023 View Count: 0

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[Open in Map Viewer Classic](#)

[Open in ArcGIS Desktop](#)

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Description

This service was created for use in the **New Zealand Petroleum & Minerals Geodata Catalogue** (<https://data.nzpam.govt.nz/>), a collection of free geoscience exploration data and reports.

This web feature service contains nine geospatial layers relating to resource exploration and mining in New Zealand. These layers record the extents of 2D and 3D seismic surveys, and coal, mineral and petroleum reports, as well as the locations of wells and boreholes.

The datasets have been compiled from technical submissions provided to New Zealand Petroleum & Minerals (NZP&M) by permit operators and others, as documented in the individual reports found in the NZP&M Geodata Catalogue. These datasets are intended to help assist industry and scientific community members in locating relevant information for a particular area.

Layers included in this service:

- **Coal drill holes** - Point locations of drill holes related to exploration/mining for coal resources
- **Coal reports** - Spatial representation of the areas covered/referred to by coal reports (CR series in the Geodata Catalogue) submitted to NZP&M
- **Mineral drill holes** - Point locations of drill holes related to exploration/mining for mineral resources
- **Mineral reports** - Spatial representation of the areas covered/referred to by mineral reports (MR series in the Geodata Catalogue) submitted to NZP&M
- **Petroleum wells** - Point locations of wells related to exploration/mining for petroleum resources
- **Petroleum reports** - Spatial representation of the areas covered/referred to by petroleum reports (PR series in the Geodata Catalogue) submitted to NZP&M
- **Seismic surveys 2D** - Polyline locations of generalised 2D seismic lines
- **Seismic surveys 3D** - Spatial representation of the areas covered by 3D seismic surveys
- **Geophysical surveys** - Spatial representation of the location and extent of geophysical surveys related to mineral reports submitted to NZP&M. Types of geophysical surveys include airborne electromagnetic and magnetic, ground magnetic, resistivity, bathymetry, etc.

These data layers are updated as required and managed by the NZP&M Geoscience Information team. If you have any questions about these data, please contact us at geoscience.information@mbie.govt.nz (Point of Contact: Manager, Geoscience Information).

Terms of Use

Data use

- Data available through the Geodata Catalogue and Map includes
 - Data released under the Crown Minerals Act 1991
 - Data collected by the government

Disclaimers

- NZP&M makes no express or implied warranties as to the accuracy or completeness of the data or information, nor its suitability for any purpose. Errors are inevitably part of any database, and can arise by a number of means, from errors during field data collection, to errors during data entry.
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- NZP&M will not accept liability for any direct, indirect, special or consequential damages, losses or expenses howsoever arising and relating to use, or lack of use, of the data or information supplied

Item Information

Learn more

Low High

Details

Source: WFS
Size: 0 KB
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ERM_PSC, WFSserver, ERM, PSC, MBIE, NZPAM, Geophysics, Geophysical surveys, Geology, Survey, Mineral, Mineral reports, Minerals, Coal, Coal reports, Petroleum, Petroleum reports, Borehole, Well, Drilling, Resource exploration, Resource mining, Geoscience, Boundaries, Permits, Seismic, Seismic surveys, GDC, Geodata catalogue

Credits (Attribution)

[Edit](#)

Compiled by New Zealand Petroleum & Minerals (NZP&M), which is a brand used by the Energy and Resource Markets branch of the Ministry of Business, Innovation and Employment (MBIE).

URL

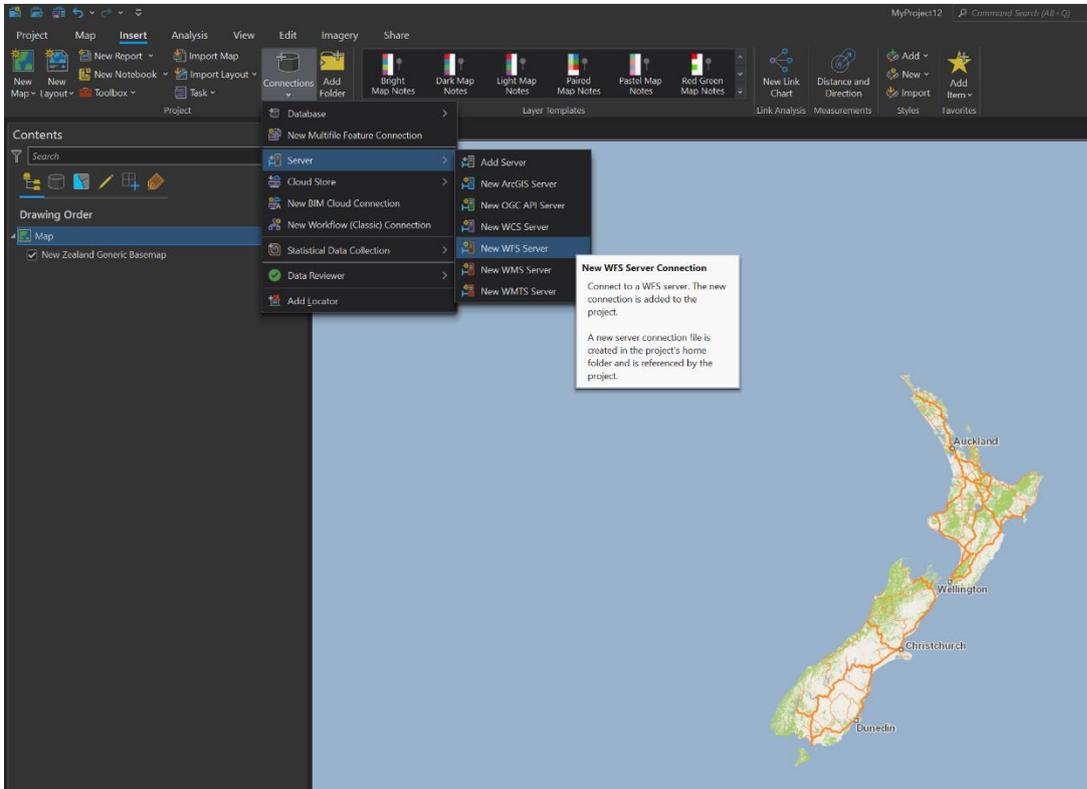
[View](#)

<https://data.nzpam.govt.nz/hosting/servic>

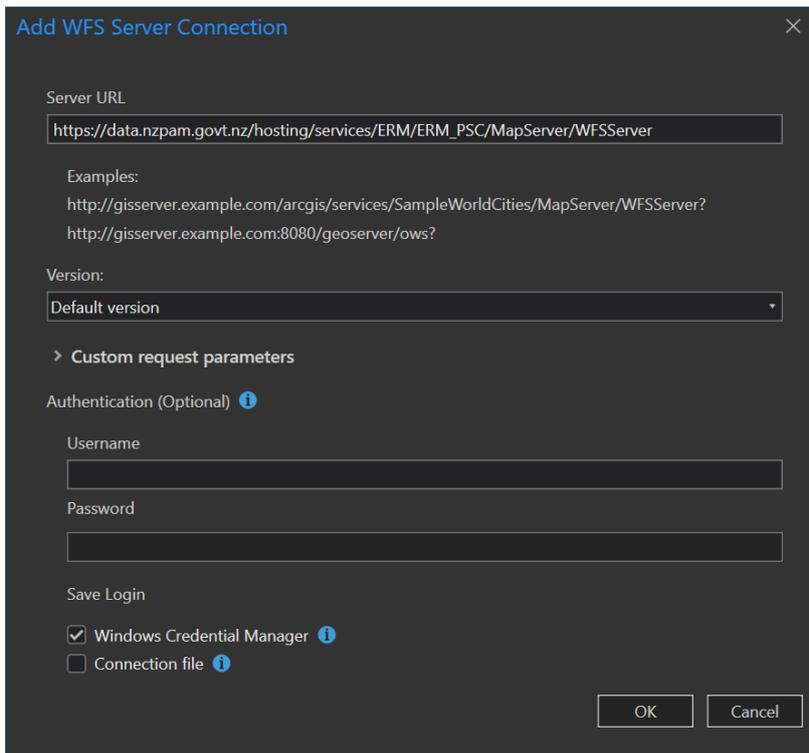
ArcGIS Pro

This guide uses ArcGIS Pro version 3.0.2

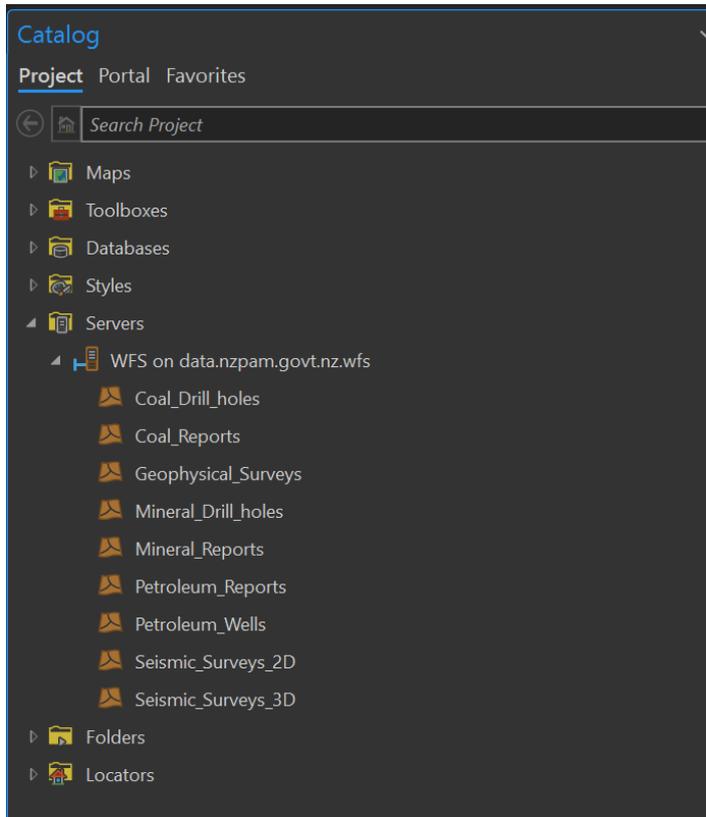
Open the 'Insert' tab in ArcGIS Pro and select 'Connections', then 'Server', then either 'New ArcGIS Server', 'New WFS Server', or 'New WMS Server' depending on which service you wish to consume.



Enter the URL for the service you are trying to consume, and press 'OK'.



Once connected, expand the 'Servers' menu in your Catalog Pane and you should see the list of all the data services that are available. From here you can add the layers you want to your map.



There are distinctions between each of the three types of services on offer;

- **Web Map Service (WMS)** – This service provides the data as a basemap and allows you to view the data with symbology and query the data with the 'Explore' tool.
- **Web Feature Service (WFS)/Feature Layer** – These services provides the data as features and like the Web Map Service allows you to view the data with symbology and query the data with the 'Explore' tool. Additionally it provides access to the Attribute Table and the layer Properties. Feature Services/Layers acknowledge the feature geometry. This means that when editing your own data you can clip against and snap to this data, this data can also be selected and exported to create a local copy of this data.

ArcGIS Map Viewer

ArcGIS Map Viewer is a web-based mapping service provided by ESRI. Clicking on the 'Open in Map Viewer Classic' map link, highlighted below, opens the chosen service in an ArcGIS Map Viewer template.

NZ Petroleum and Minerals Geodata Catalogue

Overview Data Visualization Settings

Edit thumbnail

Geospatial layers provided by New Zealand Petroleum & Minerals which relate to resource exploration and mining in New Zealand.

Feature Layer by MBIE_Geospatial

Created: Dec 2, 2022 Updated: Feb 22, 2023 View Count: 42

Authoritative

Add to Favorites

Open in Map Viewer Classic

Open in Scene Viewer

Open in ArcGIS Desktop

Share

Metadata

Description

There is a range of data viewing and querying functionalities available through ArcGIS Map Viewer, including the ability to view the tabular data and filter the data based on attributes. If you click 'Add' then the option to add additional data to the map is made available. You can add other web services, Living Atlas layers your own zipped up shapefiles, or annotate directly onto the map.

Home NZ Petroleum and Minerals Geodata Catalogue Open in new Map Viewer New Map MBIE

Details Add Edit Basemap Analysis

Save Share Print Directions Measure Bookmarks Find address or place

About Contents Legend

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- NZ Petroleum and Minerals Geodata Catalogue - Coal Drill Holes
- NZ Petroleum and Minerals Geodata Catalogue - Coal Reports
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- NZ Petroleum and Minerals Geodata Catalogue - Mineral Reports
- NZ Petroleum and Minerals Geodata Catalogue - Petroleum Wells
- NZ Petroleum and Minerals Geodata Catalogue - Petroleum Reports
- NZ Petroleum and Minerals Geodata Catalogue - Seismic Surveys 2D
- NZ Petroleum and Minerals Geodata Catalogue - Seismic Surveys 3D
- NZ Petroleum and Minerals Geodata Catalogue - Geophysical Surveys

New Zealand Generic Basemap

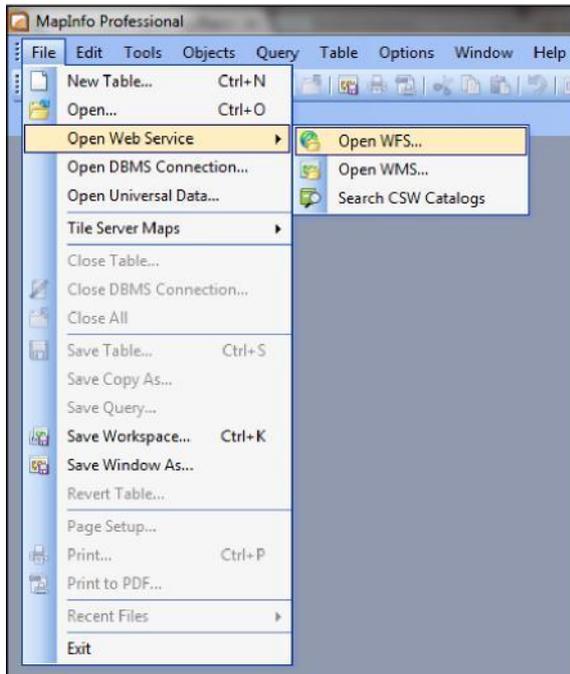
0 50 100km

Land Information New Zealand & Esri Technology Group Ltd esri

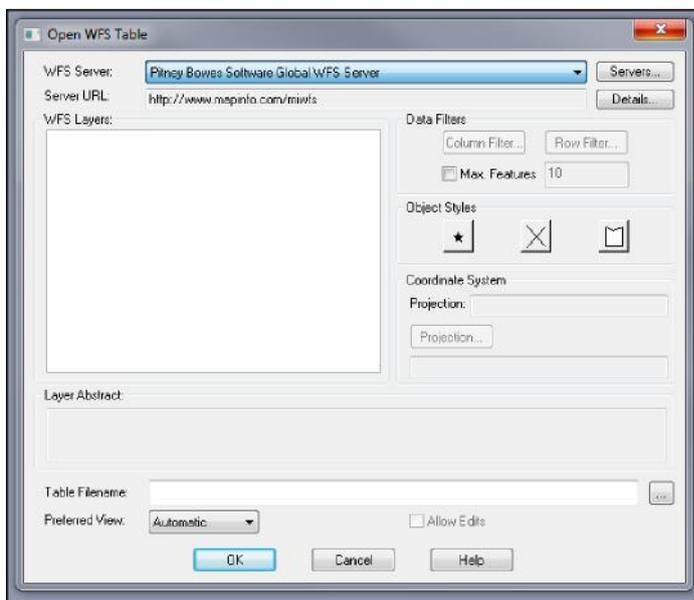
MapInfo

This guide uses MapInfo Professional version 12.0.

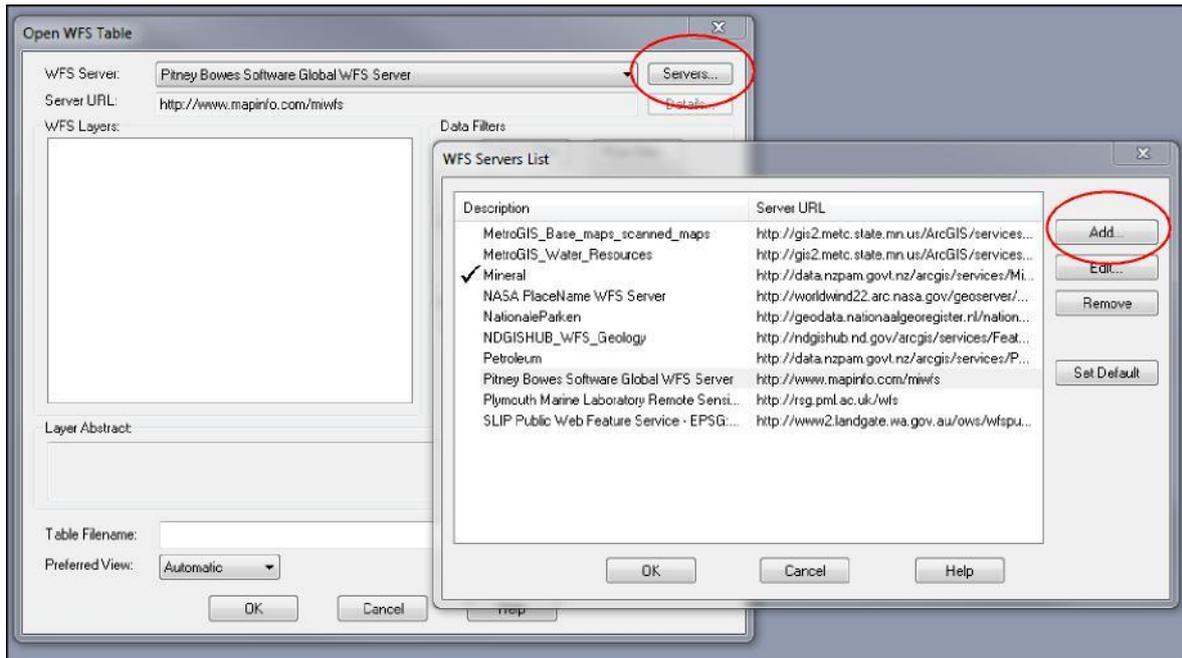
Navigate to 'File' > 'Open Web Service' > 'Open WFS...'



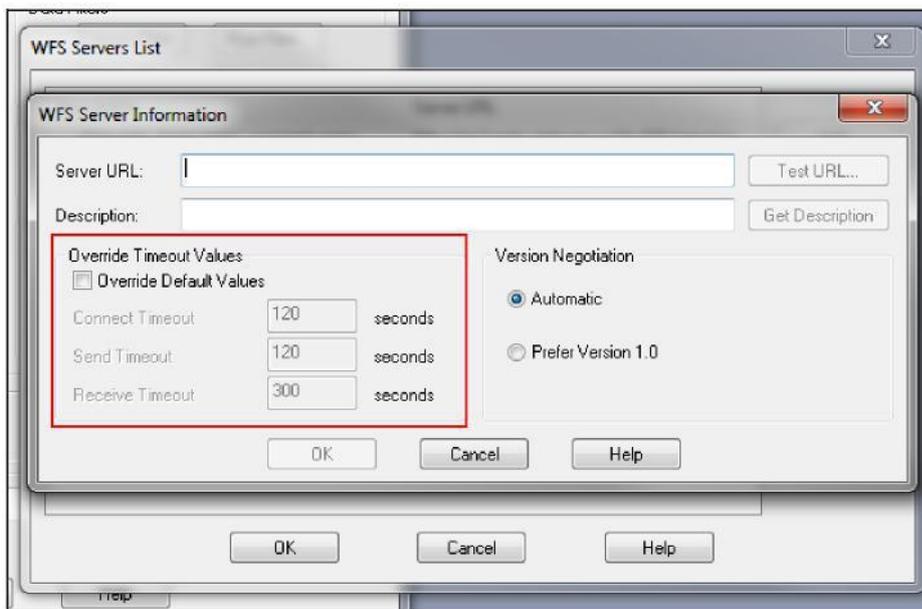
Add a new WFS service connection by clicking on 'Servers....'



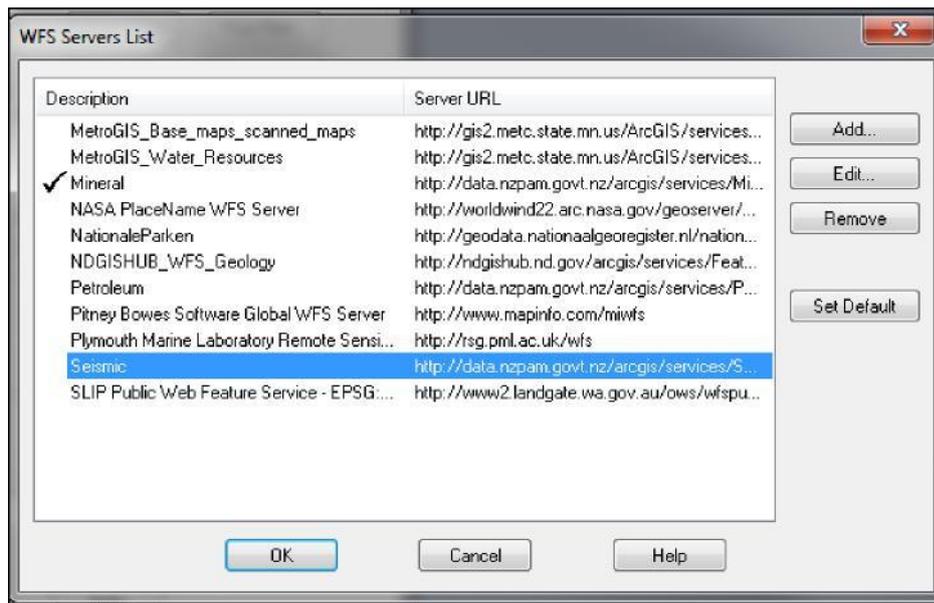
Click 'Add...'



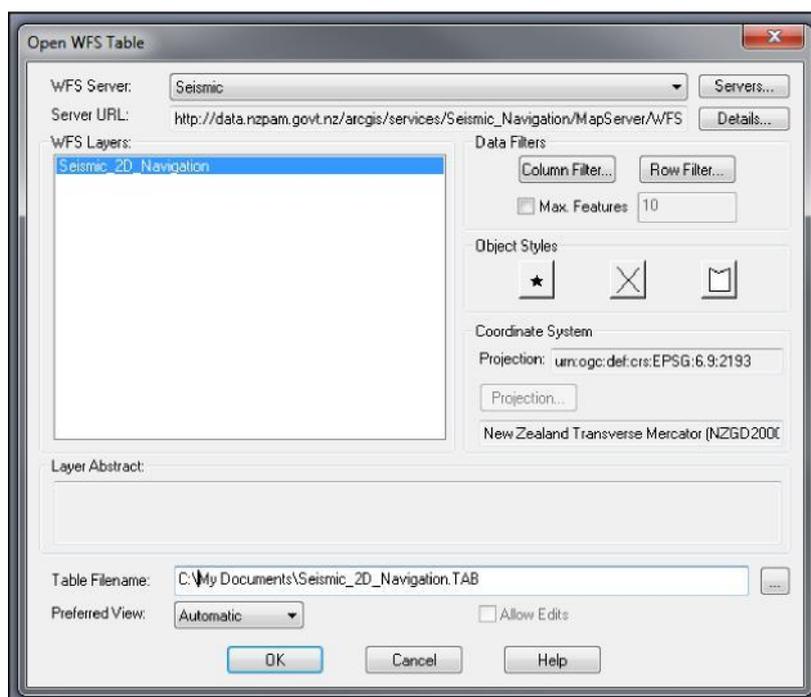
Enter the URL of the WFS service (see 'Accessing OGC Services' on page 2 above) and a meaningful description of the dataset. It is suggested that you select to 'Override Default Values' and change them all to 300.



The service should now appear in the WFS Servers List, select it and press 'OK'.



The service should be listed under 'WFS Layers'. This method of accessing a WFS takes a copy of the data and stores it locally. Choose the name, and the location you want the data table to be stored under 'Table Filename'. Select the layer and press 'OK'.



To update the data stored at the above location, right-click the layer in the 'Table List' and press 'Refresh'. This recalls the data from the WFS and replaces what you have stored locally with the updated data.