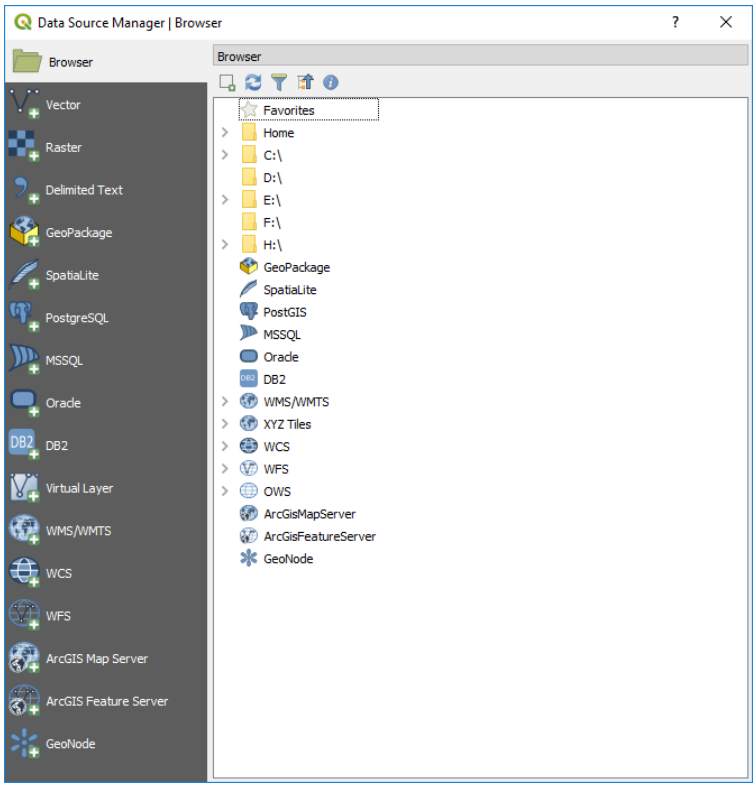
How to add services in QGIS Version 3.2.0

Adding WMTS services to QGIS

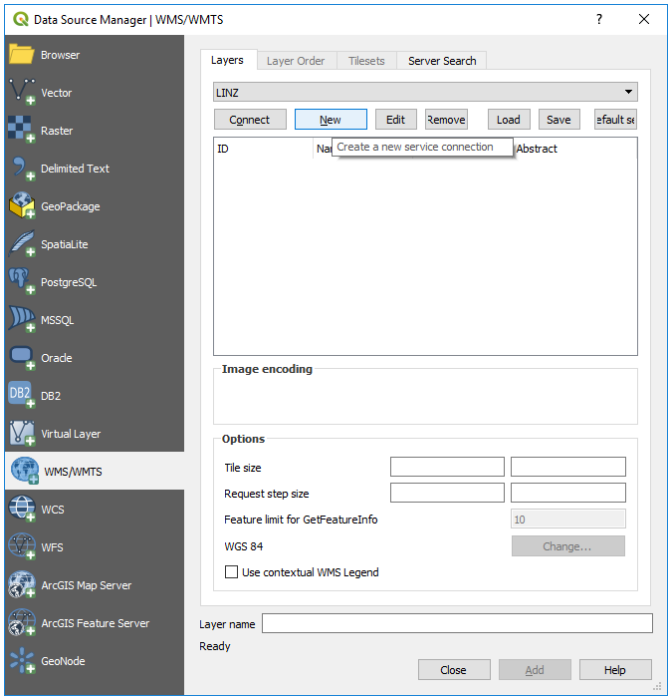
For basemap services WMTS is the recommended format where available

To add a WMTS layer to QGIS,

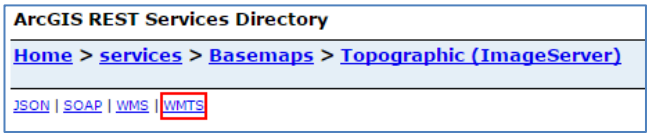
- **CTRL-L** to open the data source manager and click on the **Add WMS/WMTS Layer** as shown in the image below
- Alternatively go to the **Layer** menu, select **Add Layer**, then **Add WMS/WMTS Layer**



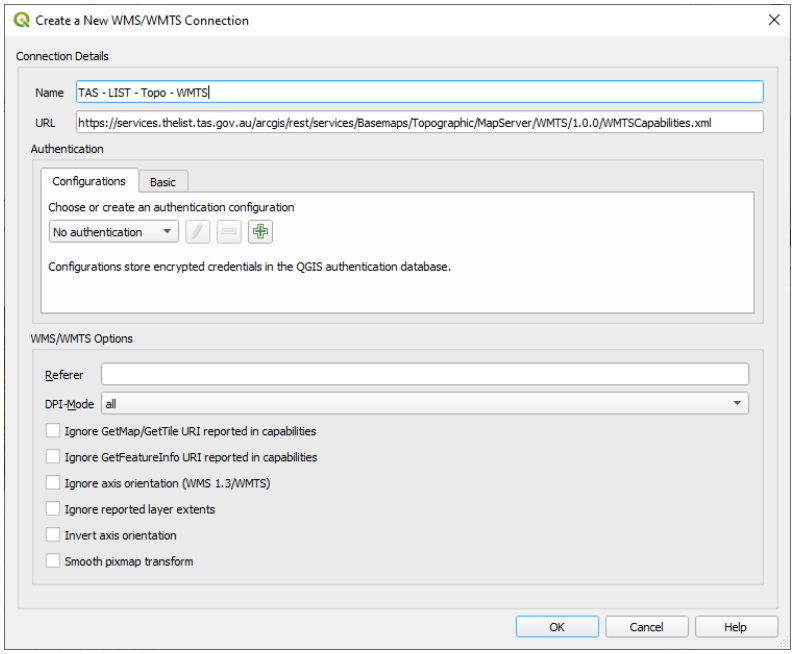
- For a new connection click on the **New** button



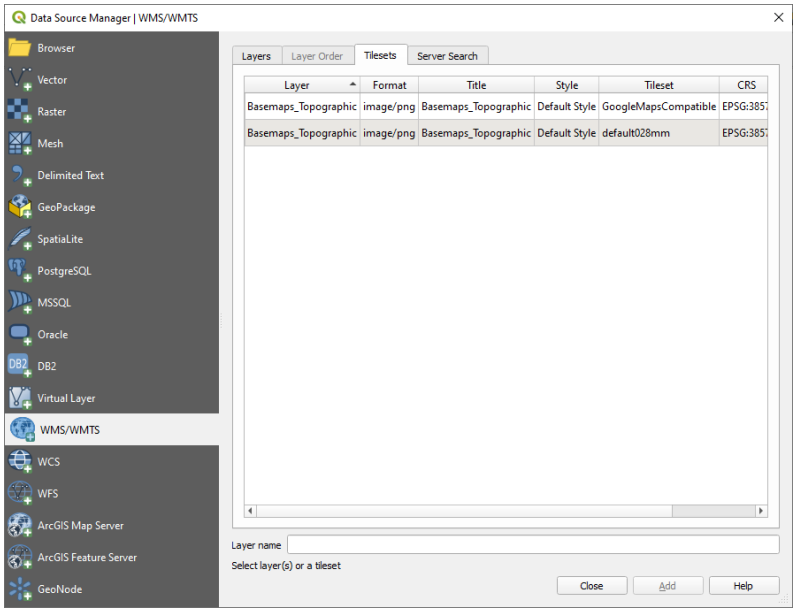
- Type in a meaningful name in the **Name** text box then type in a URL from the LIST's ArcGIS REST web services that has WMTS enabled (look for WMTS in the top left corner)



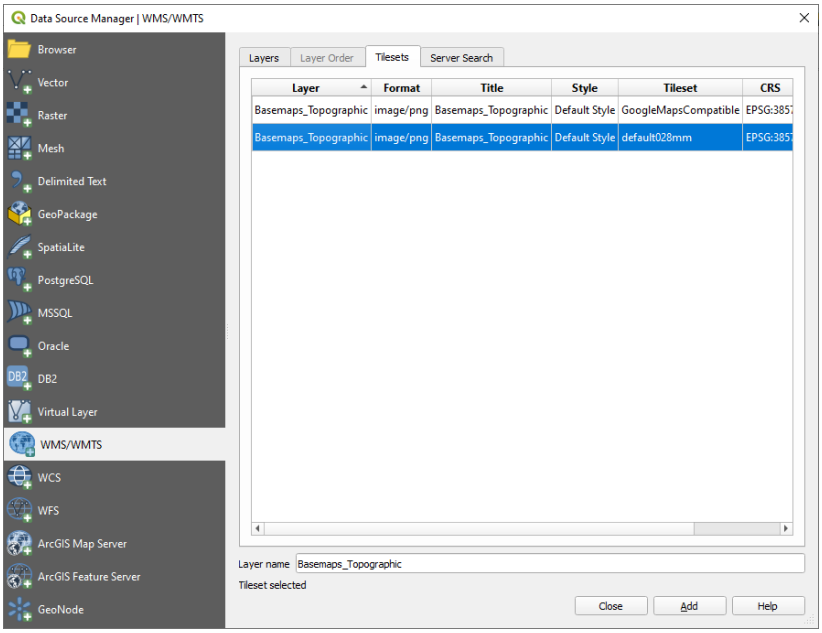
For example, https://services.thelist.tas.gov.au/arcgis/rest/services/Basemaps/Topographic/MapServer/WMTS/1.0.0/WMTSCapabilities.xml and then click OK



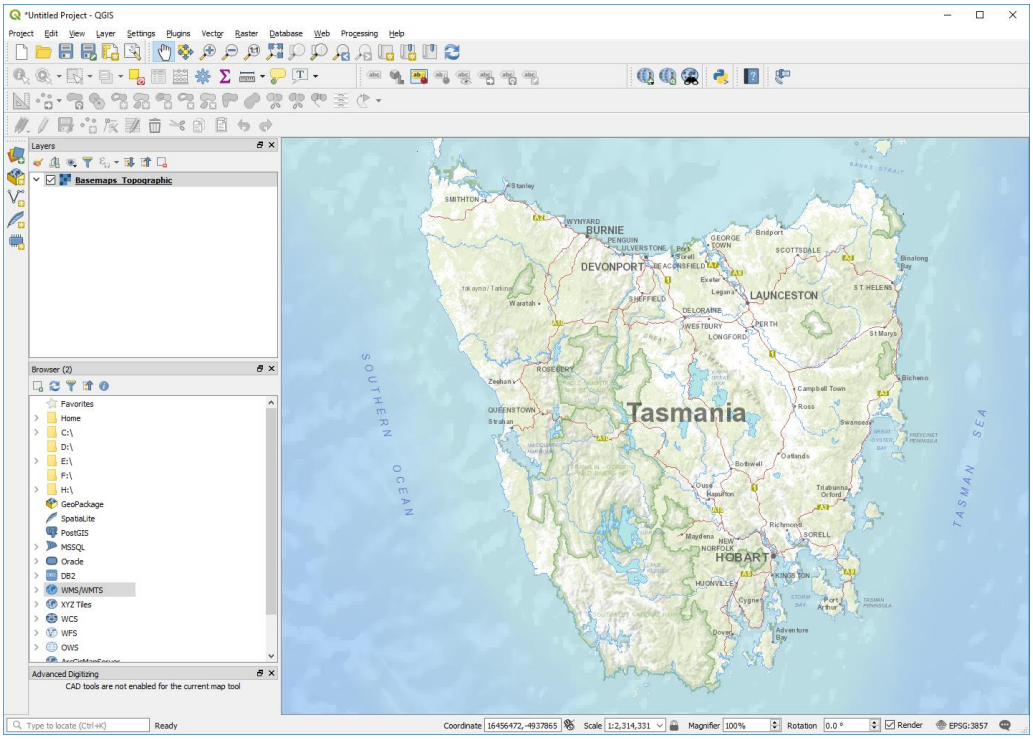
- Then click on the **Connect** button to view the available tile sets



- Highlight a tile set that you wish to use and click **Add**



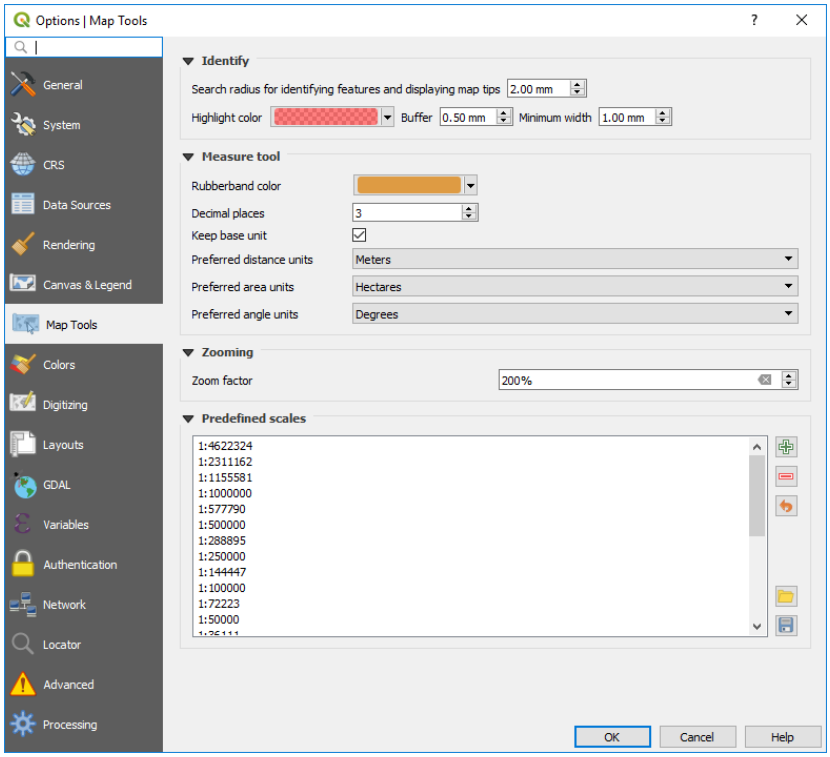
- The results are then loaded into QGIS. Please be aware that the initial extent may not be initially zoomed in to Tasmania. It's also a good idea to right click on the layer and Zoom to native resolution for the clearest images.



For the best outputs you should set the scale of the map to one of the following

Level	Scale
7	1:4,622,324
8	1:2,311,162
9	1:1,155,581
10	1:577,790
11	1:288,895
12	1:144,447
13	1:72,223
14	1:36,111
15	1:18,055
16	1:9,027
17	1:4,513
18	1:2,256

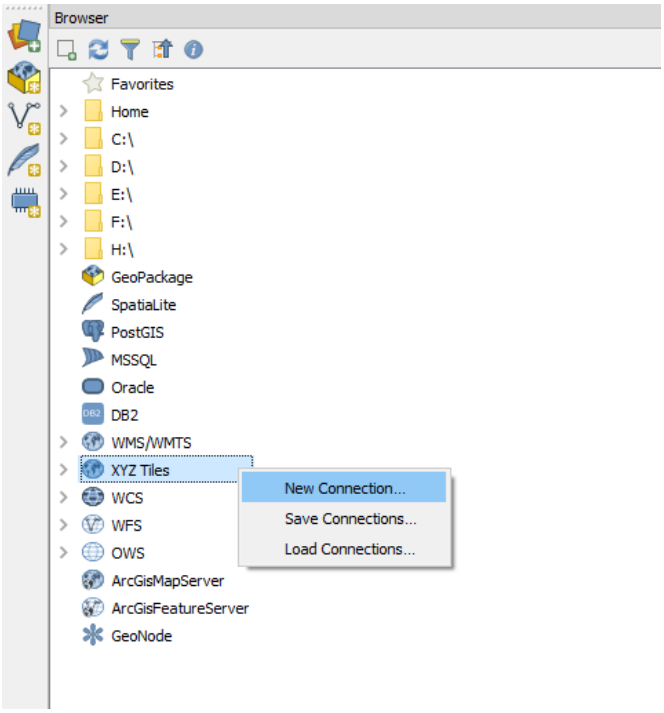
If you are regularly using LIST maps then you can add these to your predefined scales using **Settings, Options, Map Tools**



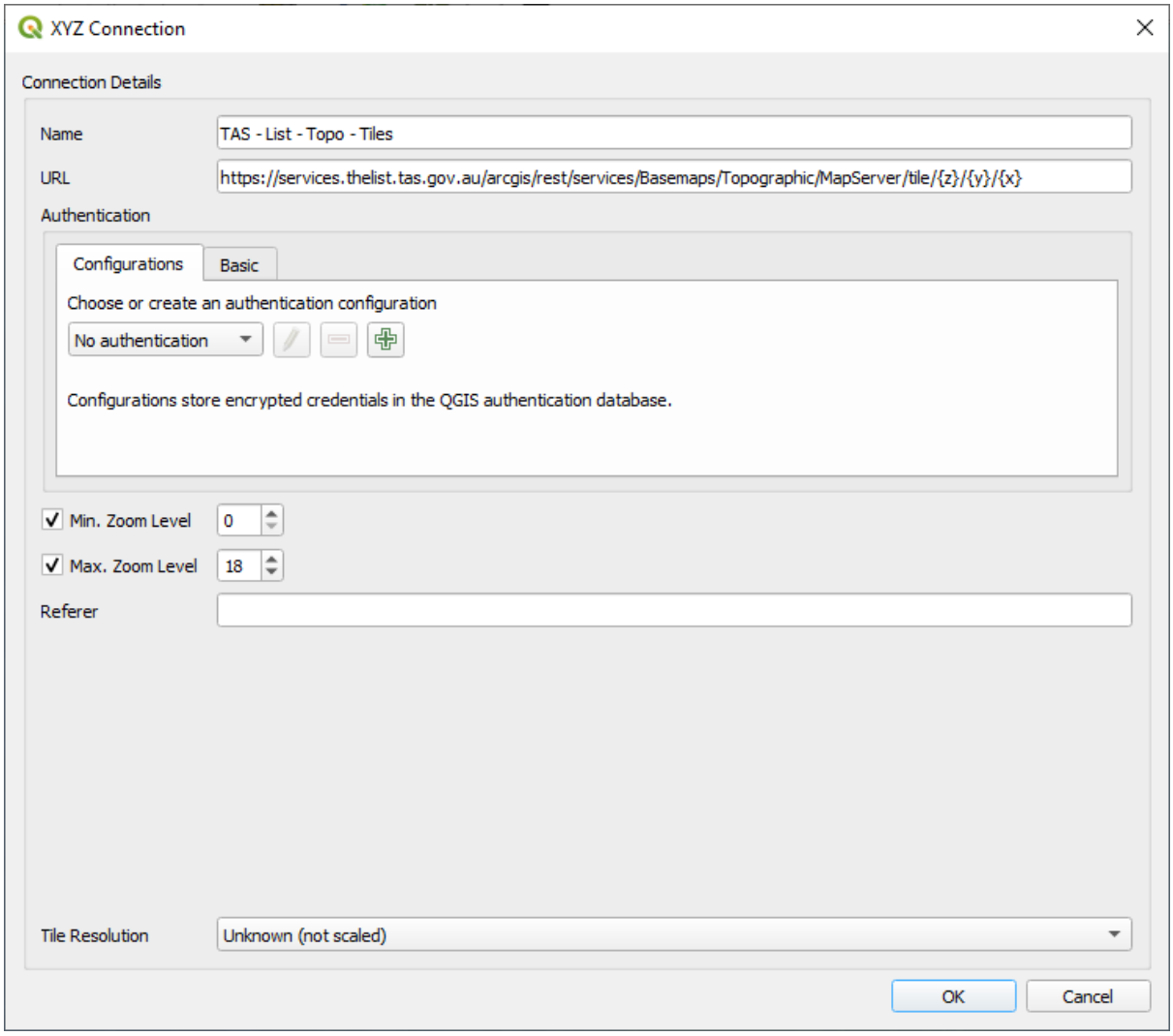
Adding a Tile Service to QGIS

To add a tile service to QGIS

- In the browser, right click on XYZ Tiles and click New Connection



- Add a suitable name, URL and zoom levels and press OK



The following tile services can be added

http://services.thelist.tas.gov.au/arcgis/rest/services/Basemaps/Topographic/MapServer/tile/{z}/{y}/{x}

http://services.thelist.tas.gov.au/arcgis/rest/services/Basemaps/TasmapRaster/MapServer/tile/{z}/{y}/{x}

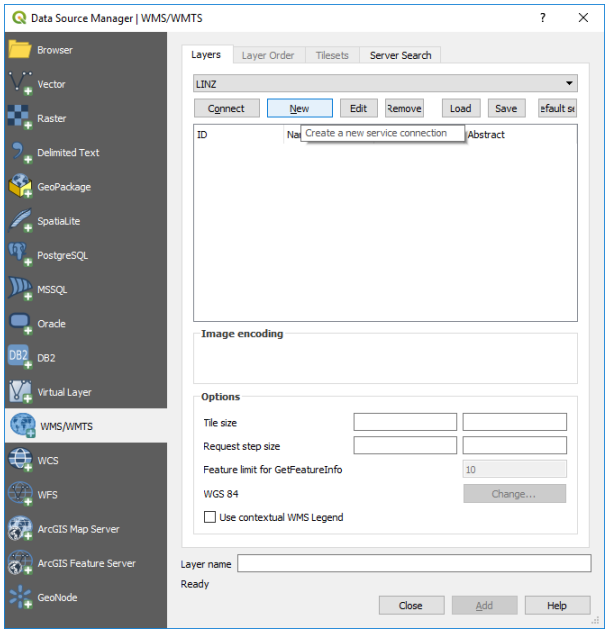
http://services.thelist.tas.gov.au/arcgis/rest/services/Basemaps/Orthophoto/MapServer/tile/{z}/{y}/{x}

Adding WMS services to QGIS

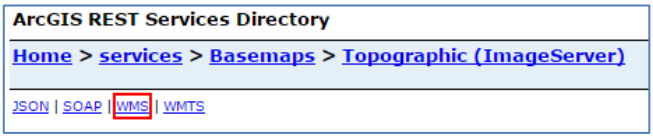
To add a WMS layer to QGIS,

- **CTRL-L** to open the data source manager and click on the **Add WMS/WMTS Layer** as shown in the image below
- Alternatively go to the **Layer** menu, select **Add Layer**, then **Add WMS/WMTS Layer**

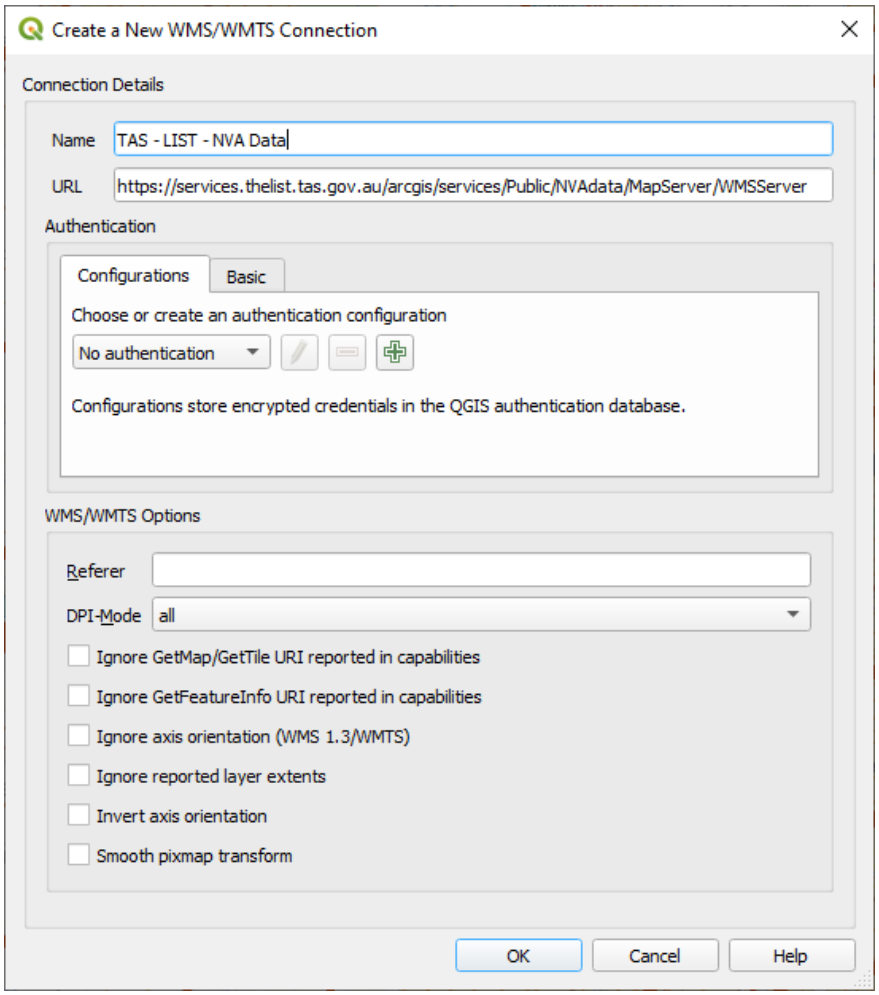
- For a new connection click on the **New** button



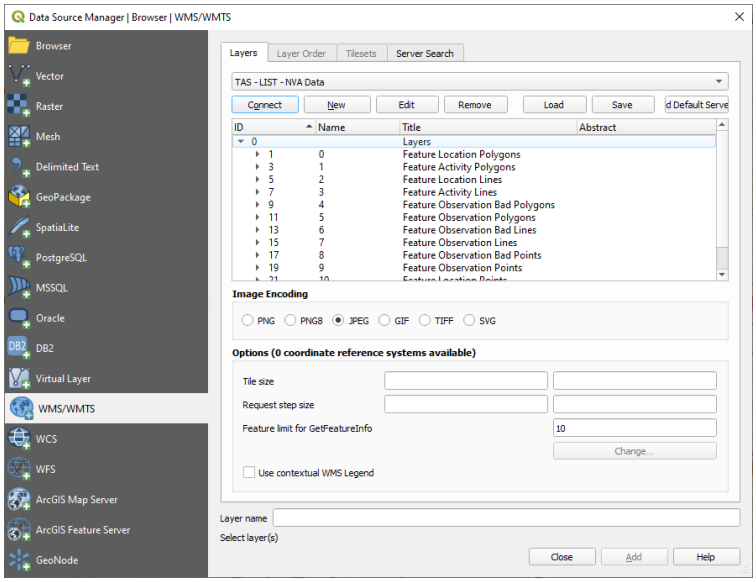
- Type a meaningful name in the **Name** text box then type in the URL for the desired WMS layers: https://services.thelist.tas.gov.au/arcgis/services/Public/TopographyAndRelief/MapServer/WMSServer?request=GetCapabilities&service=WMS and click **OK**.
- Alternatively, check the LIST's ArcGIS REST web services to see if WMS is enabled on a service (look for WMS in the top left corner)



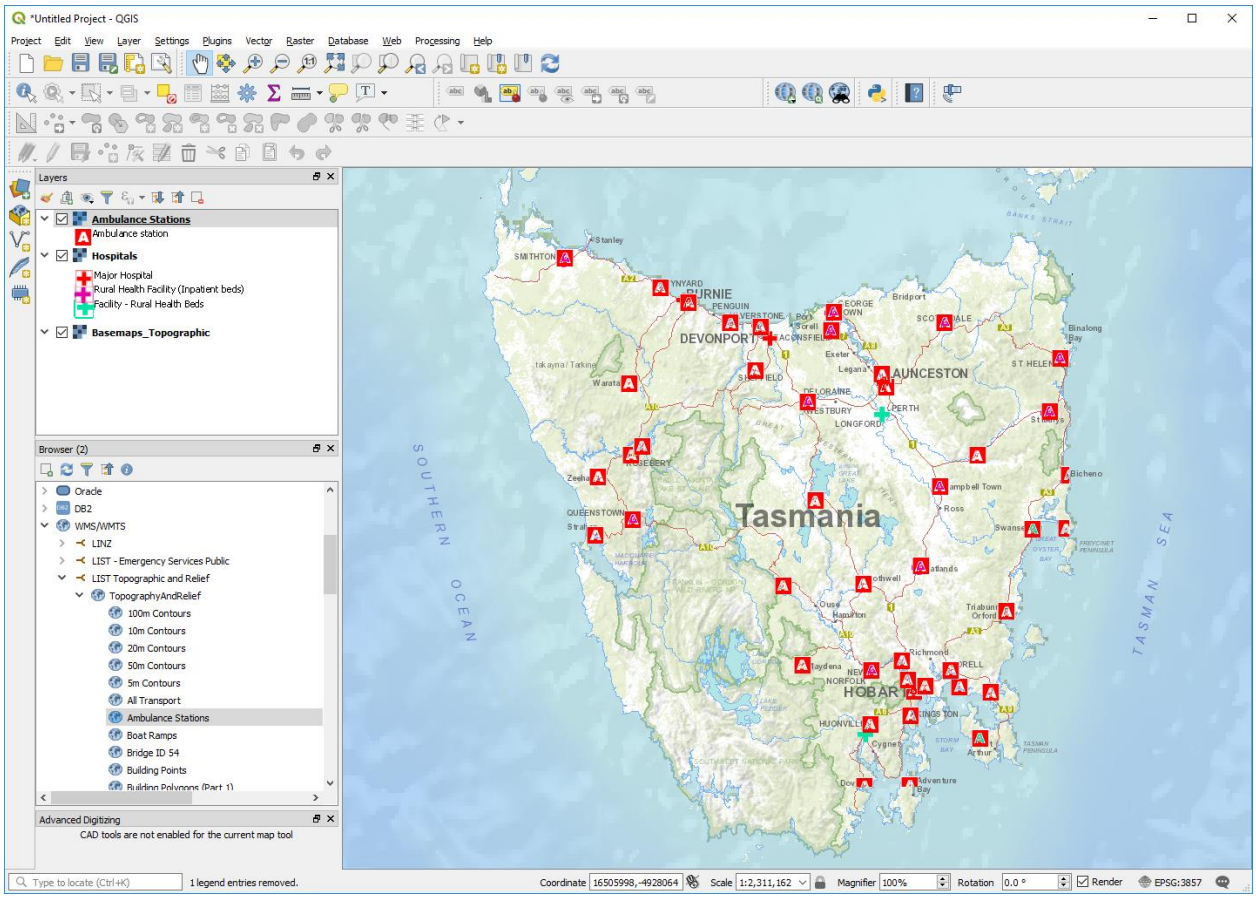
For example, the following URL will also allow you to add Natural Values Atlas data: https://services.thelist.tas.gov.au/arcgis/services/Public/NVAdata/MapServer/WMSServer?request=GetCapabilities&service=WMS



- **CTRL-L** to open the data source manager and select **WMS/WMTS**
- Ensure that you have the correct connection selected from the drop down list then click on the **Connect** button to view the available layers
- Highlight a layer, change the coordinate system if required, ensure that PNG is the Image encoding (if you want to overlay the features on other base maps) and click **Add** to add the layer to the map. This window will stay open if you want to add more layers or simply click the **Close** button to dismiss the window.

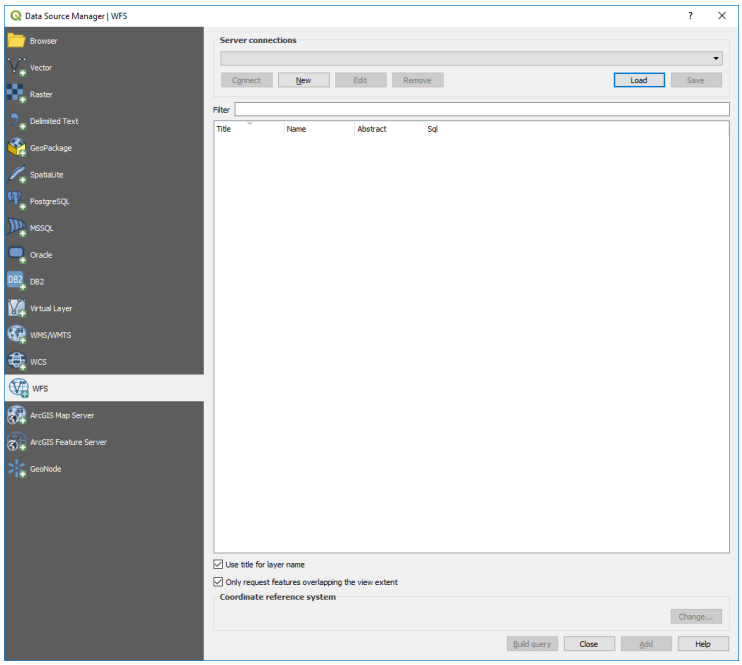


- Note – some layers do not appear until you zoom in
- Once you have set up the WMS connection you can also drag and drop layers onto the map from the browser panel

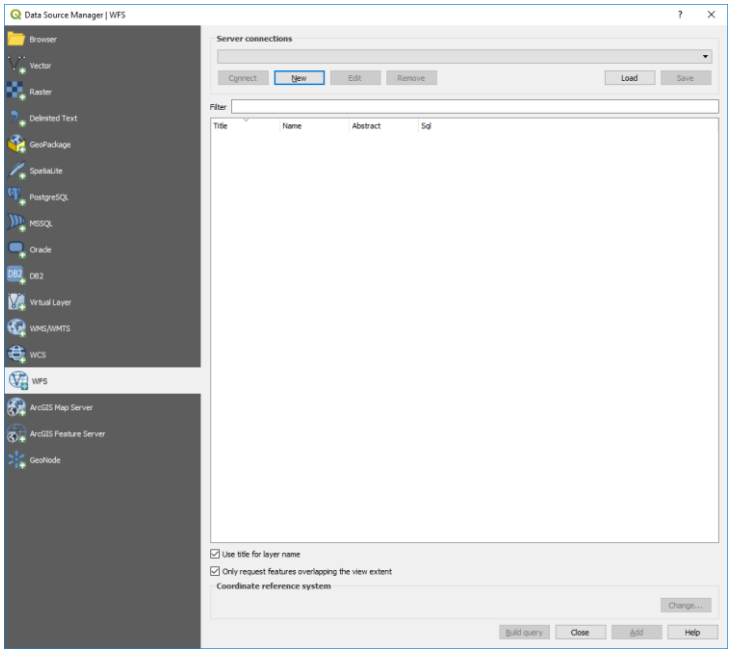

*Untitled Project - QGIS
Project Edit View Layer Settings Plugins Vector Raster Database Web Processing Help
Layers
Ambulance Stations
Ambulance station
Hospitals
Major Hospital
Rural Health Facility (Inpatient beds)
Facility - Rural Health Beds
Basemaps_Topographic
Browser (2)
Oracle
DB2
WMS/WMTS
LINZ
LIST - Emergency Services Public
LIST Topographic and Relief
TopographyAndRelief
100m Contours
10m Contours
20m Contours
50m Contours
5m Contours
All Transport
Ambulance Stations
Boat Ramps
Bridge ID 54
Building Points
Advanced Digitizing
CAD tools are not enabled for the current map tool
Tasmania
SOUTHERN OCEAN
TASMAN SEA
DEVONPORT
LAUNCESTON
HOBART
BURNIE
Type to locate (Ctrl+K)
1 legend entries removed.
Coordinate 16505998,-4928064
Scale 1:2,311,162
Magnifier 100%
Rotation 0.0 °
Render
EPSG:3857

Adding WFS services to QGIS

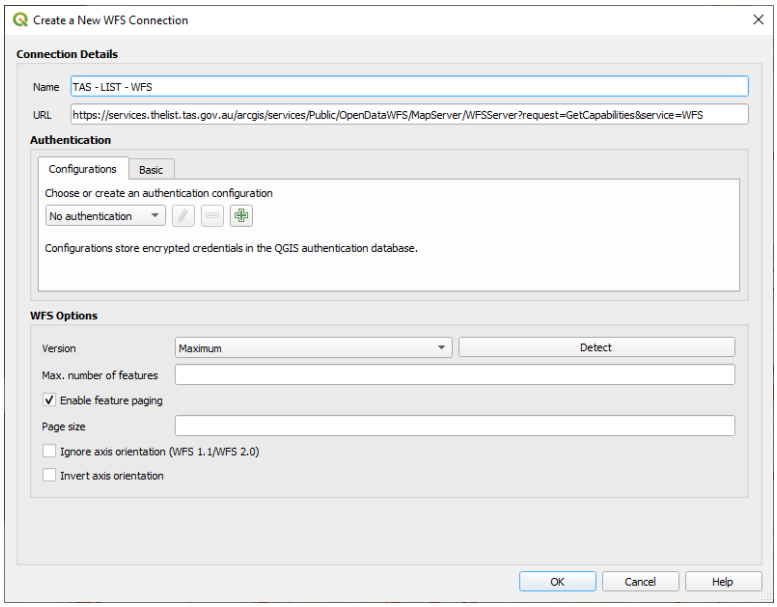
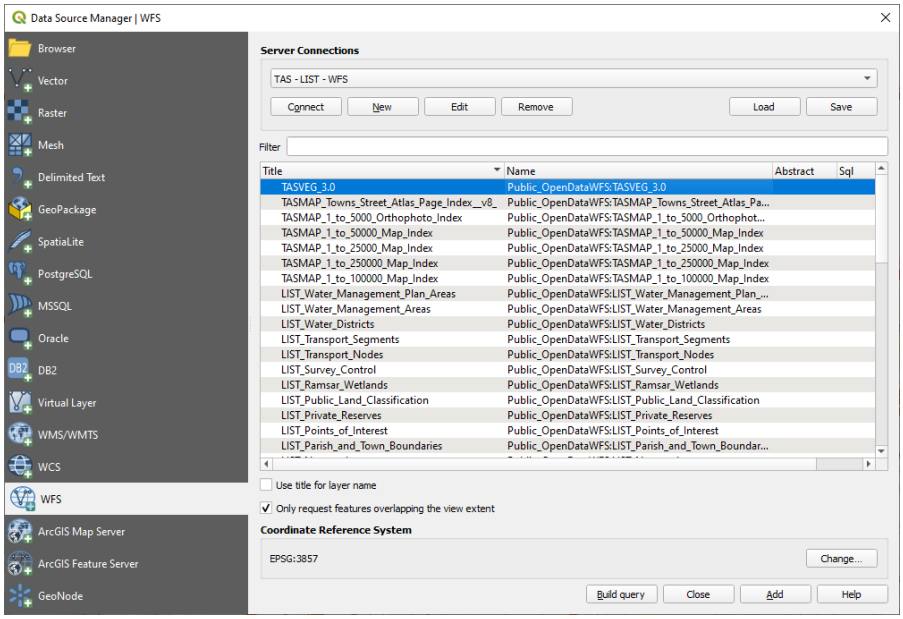
- **CTRL-L** to open the data source manager and click on the **Add WFS** as shown in the image below
- Alternatively go to the **Layer** menu, select **Add Layer**, then **Add WFS**



- For a new connection click on the **New** button



- Type a meaningful name in the **Name** text box then type in the following URL: **https://services.thelist.tas.gov.au/arcgis/services/Public/OpenDataWFS/MapServer/WFSServer?request=GetCapabilities&service=WFS** and click **OK**.



- Ensure that you have the correct connection selected from the drop down list then click on the **Connect** button to view the available layers, highlight a layer, double click on it to add a filter expression if required, enable **Use title for layer name** and click **Add** to add the layer to the map. This window will stay open if you want to add more layers or simply click the **Close** button to dismiss the window. Please note that there is a 2,000 maximum feature limit on each layer for performance requirements for the LIST WFS service