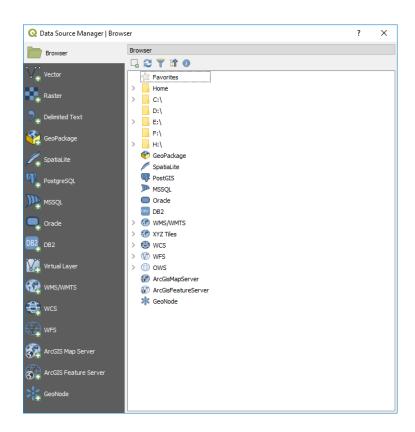
## How to add services in QGIS Version 3.2.0

Adding WMTS services to QGIS

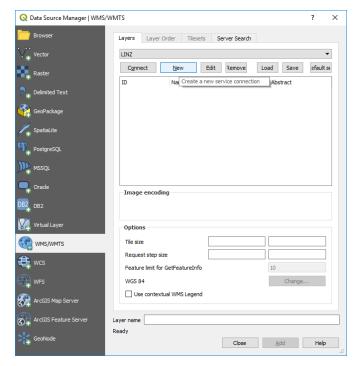
### For basemap services WMTS is the recommended format where available

To add a WMTS layer to QGIS,

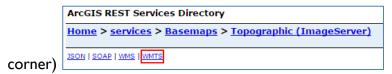
- CTRL-L to open the data source manager and click on the Add WMS/WMTS
   Layer as shown in the image below
- Alternatively go to the Layer menu, select Add Layer, then Add WMS/WMTS
   Layer



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

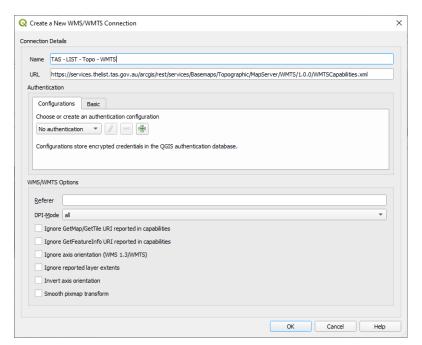


 Type in a meaningful name in the Name text box then type in a URL from the LIST's <u>ArcGIS REST web services</u> that has WMTS enabled (look for WMTS in the top left

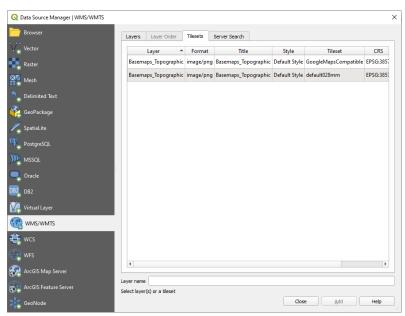


#### For example,

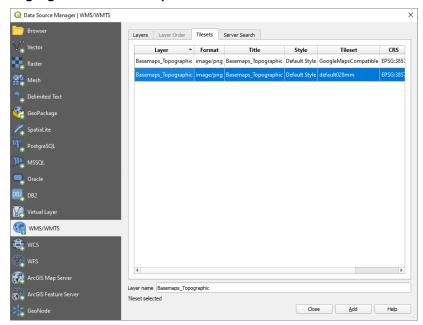
https://services.thelist.tas.gov.au/arcgis/rest/services/Basemaps/Topographic/MapServer/WMTS/I.0.0/WMTSCapabilities.xml and then click OK



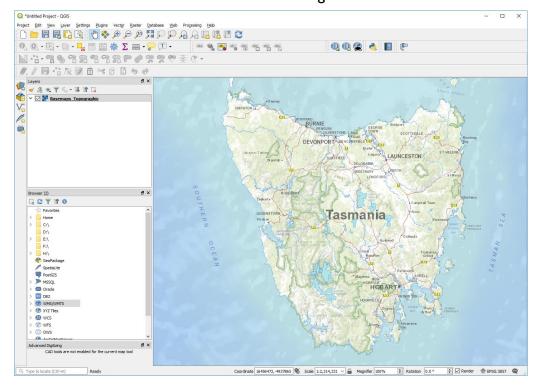
• Then click on the **Connect** button to view the available tile sets



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



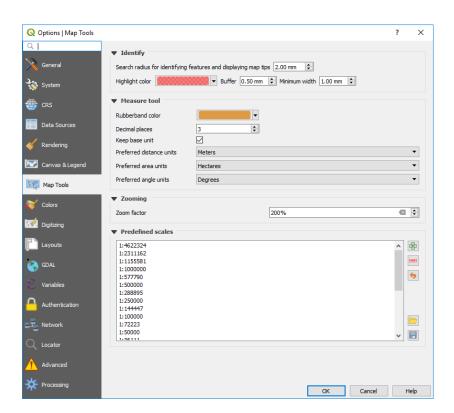
 The results are then loaded into QGIS. Please be aware that the initial extent may not be initially zoomed in to Tasmania. It's also a good idea to right click on the layer and Zoom to native resolution for the clearest images.



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

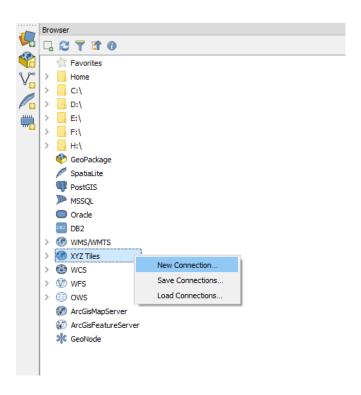
If you are regularly using LIST maps then you can add these to your predefined scales using **Settings, Options, Map Tools** 



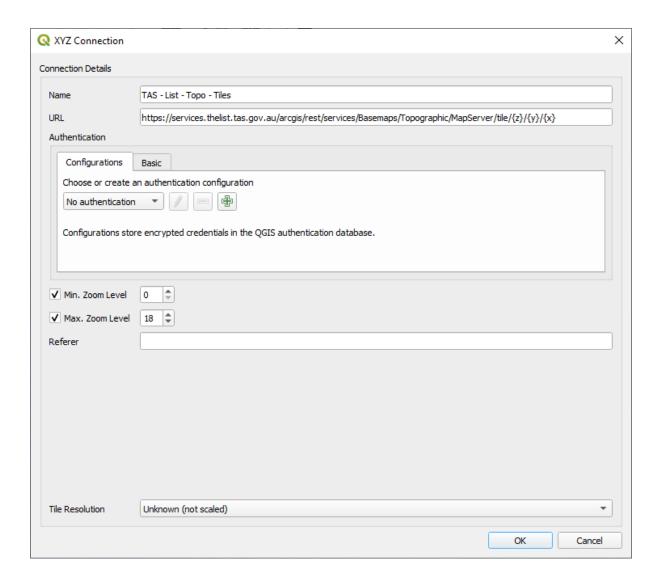
## Adding a Tile Service to QGIS

## 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



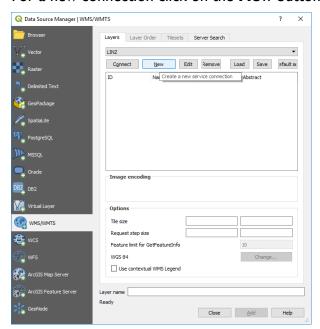
### The following tile services can be added

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

# 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



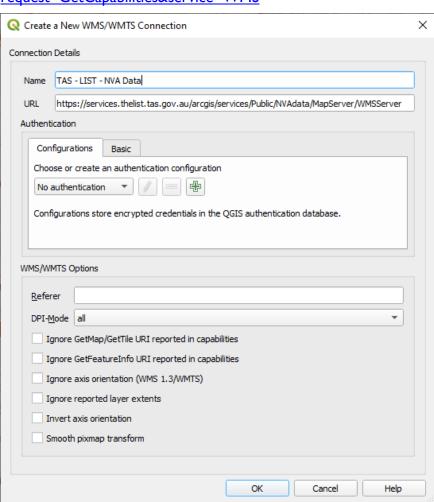
 Type a meaningful name in the Name text box then type in the URL for the desired WMS layers:

https://services.thelist.tas.gov.au/arcgis/services/Public/TopographyAndRelief/MapServer/ WMSServer?request=GetCapabilities&service=WMS and click **OK**.

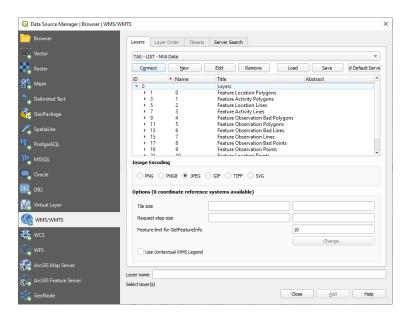
 Alternatively, check the LIST's <u>ArcGIS REST web services</u> to see if WMS is enabled on a service (look for WMS in the top left corner)



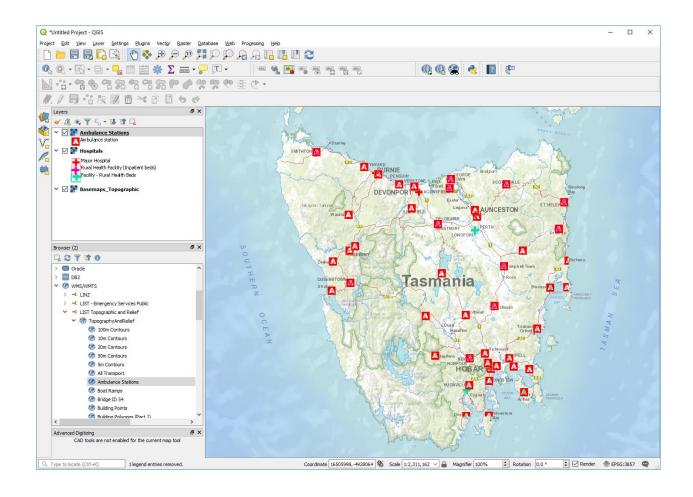
For example, the following URL will also allow you to add Natural Values Atlas data: <a href="https://services.thelist.tas.gov.au/arcgis/services/Public/NVAdata/MapServer/WMSServer?">https://services.thelist.tas.gov.au/arcgis/services/Public/NVAdata/MapServer/WMSServer?</a> request=GetCapabilities&service=WMS



- 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.

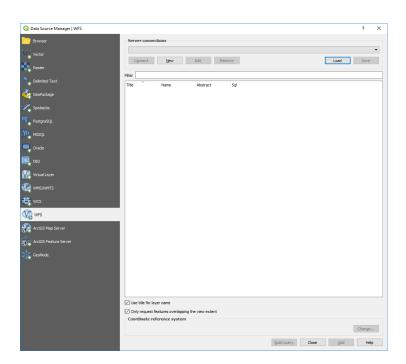


- Note some layers do not appear until you zoom in
- Once you have set up the WMS connection you can also drag and drop layers onto the map from the browser panel

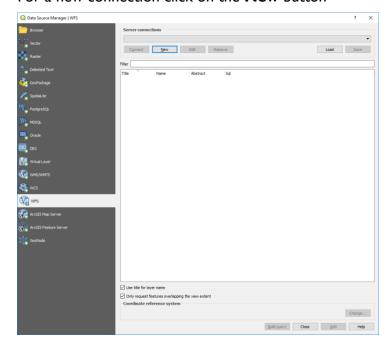


# Adding WFS services to QGIS

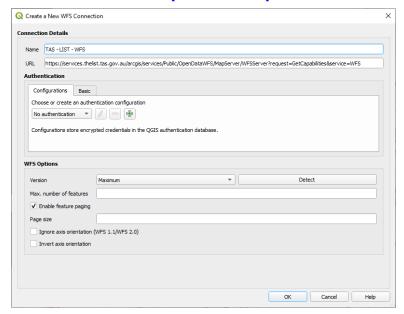
- CTRL-L to open the data source manager and click on the Add WFS as shown in the image below
- Alternatively go to the Layer menu, select Add Layer, then Add WFS



• 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/MapS
 erver/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

