OPEN DATA USER GUIDE

National Monuments Service

Version 2 – 24/01/2024

This is a step by step user guide to using the National Monuments Service (NMS) Open Data

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NMS Open Data User Guide

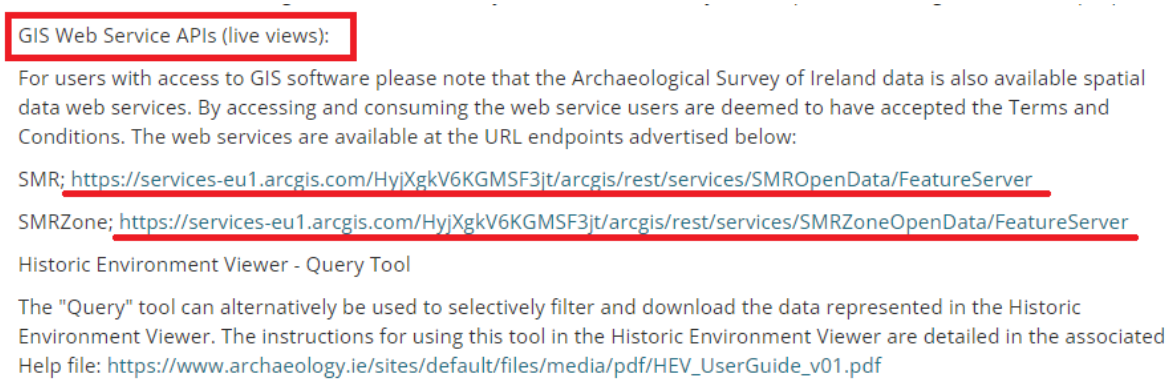
GIS Web Services Guide

You can access the API ArcGIS REST web services by clicking on the links on https://data.gov.ie/

SMR & SMRZones https://data.gov.ie/dataset/national-monuments-service-archaeological-survey-of-ireland

NIAH https://data.gov.ie/dataset/national-inventory-of-architectural-heritage-niah-national-dataset

Highlighted in the screenshot below


GIS Web Service APIs (live views):

For users with access to GIS software please note that the Archaeological Survey of Ireland data is also available spatial data web services. By accessing and consuming the web service users are deemed to have accepted the Terms and Conditions. The web services are available at the URL endpoints advertised below:

SMR; https://services-eu1.arcgis.com/HyjXgkV6KGMSF3jt/arcgis/rest/services/SMROpenData/FeatureServer

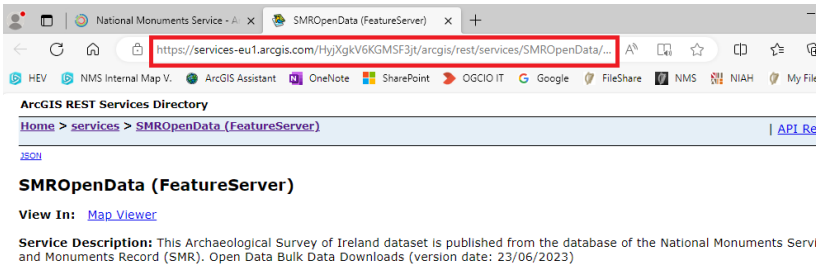
SMRZone; https://services-eu1.arcgis.com/HyjXgkV6KGMSF3jt/arcgis/rest/services/SMRZoneOpenData/FeatureServer

Historic Environment Viewer - Query Tool

The "Query" tool can alternatively be used to selectively filter and download the data represented in the Historic Environment Viewer. The instructions for using this tool in the Historic Environment Viewer are detailed in the associated Help file: https://www.archaeology.ie/sites/default/files/media/pdf/HEV_UserGuide_v01.pdf

(Screenshot of Data.gov Archaeology survey website page indicating the ArcGIS REST Services Directory links)

Clicking on the link will take you to the ArcGIS REST Services Directory, where you can copy the Url or API to insert the live service in your ArcMap, ArcPro or QGIS project



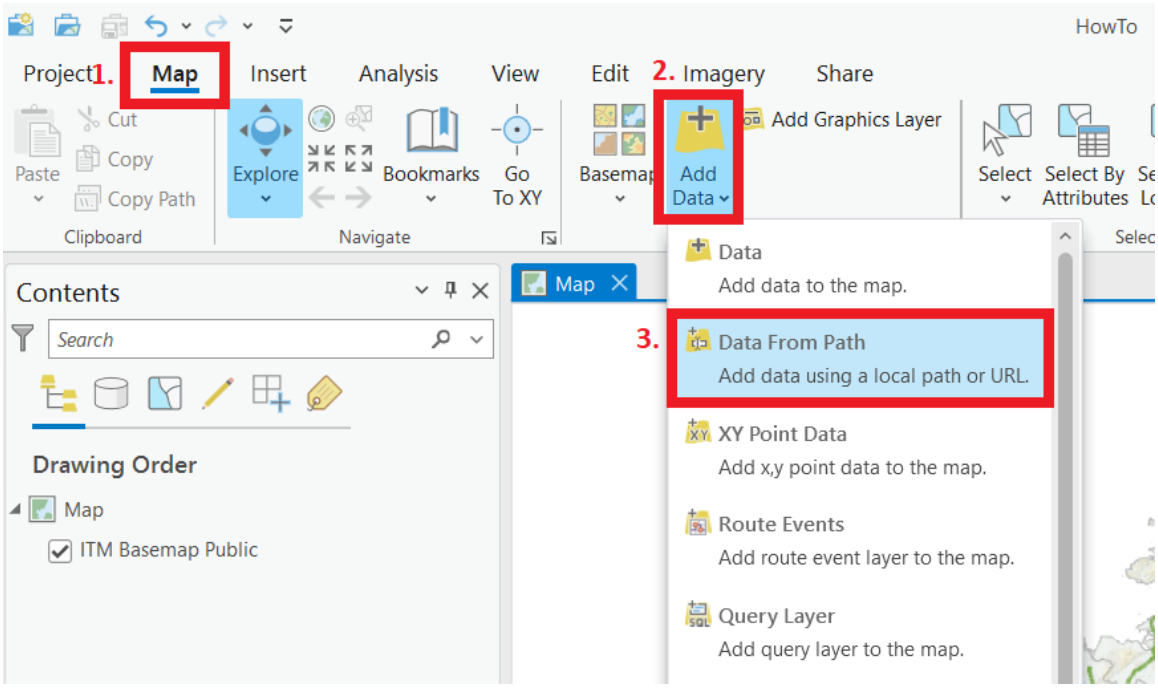
(Screenshot of the ArcGIS REST Services Directory indicating SMR url)

The url highlighted in the screenshot above can be added to a GIS project, this will add all the map server layers to the project

(Screenshot of the ArcGIS REST Services Directory indicating SMR map layers)

ArcGIS REST Web service in ArcGIS Pro

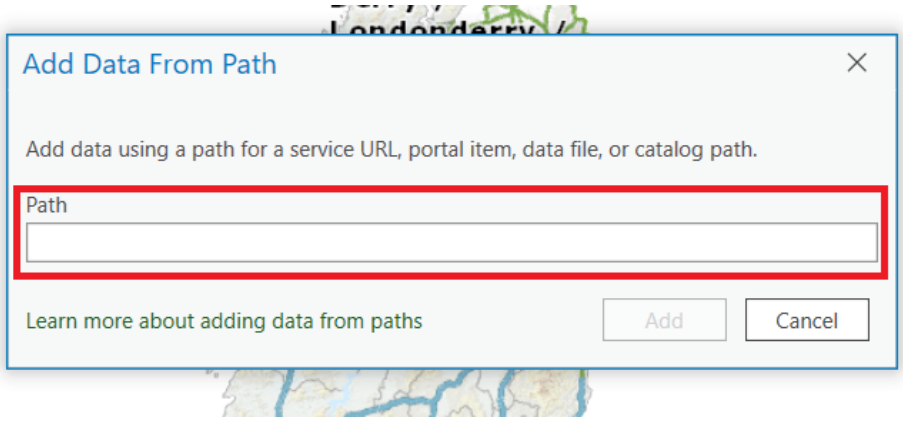
Click “Map” then click “Add Data” then click “Add Data from Path” see screenshot below



(Screenshot of add data from path in ArcPro highlighting steps)

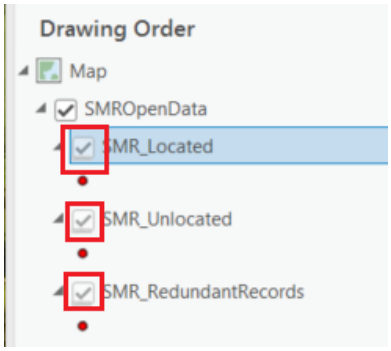
This will open the “Add Data From Path” dialogue box (See screenshot below)

Paste layer url/API into it



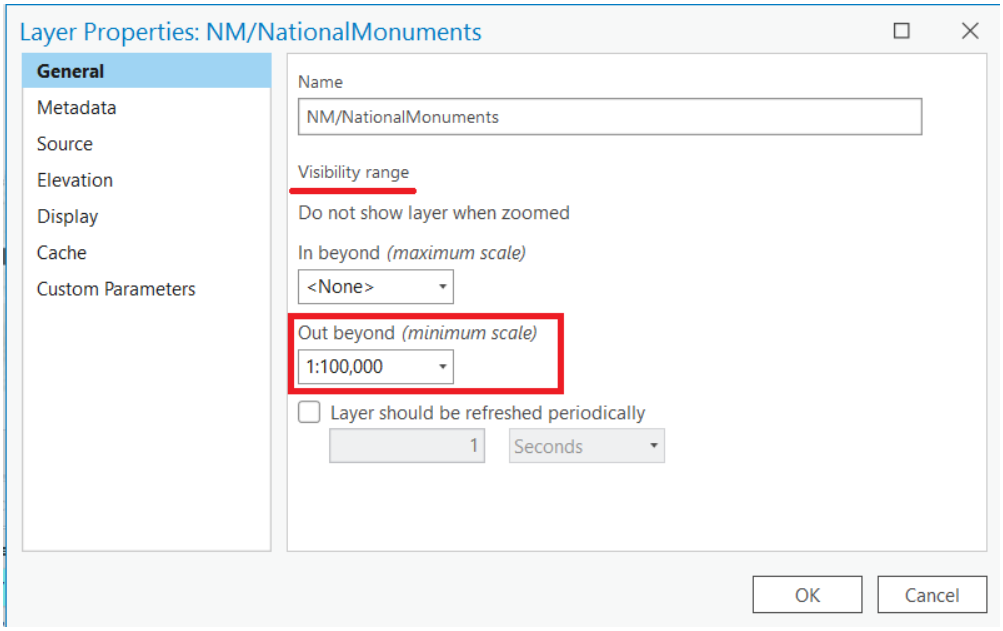
(Screenshot of add data from path dialogue box in ArcPro)

Further to note if you have successfully added the REST services to your project but they are not visible in your map pane, check the contents pane to see if the visibility tick is grey’ed out (see screenshot below) indicating that a visibility range has been set



(Screenshot of contents pane illustrating grey'ed out tick)

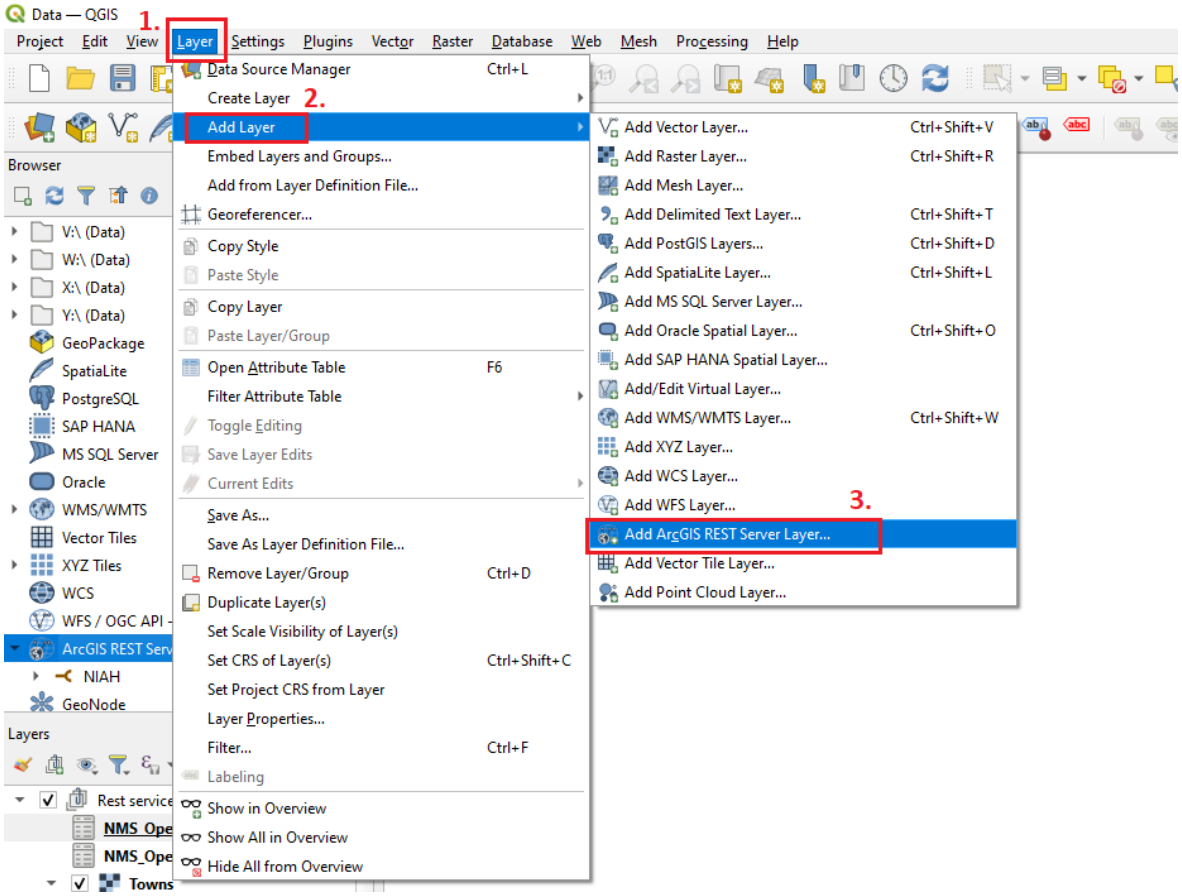
You can either zoom in to see the data or you can change the "Out beyond (minimum scale)" to none in the layer properties dialogue box (see screenshot below)



(Screenshot of layer properties dialogue box in arc pro indicating the visibility range of the layer)

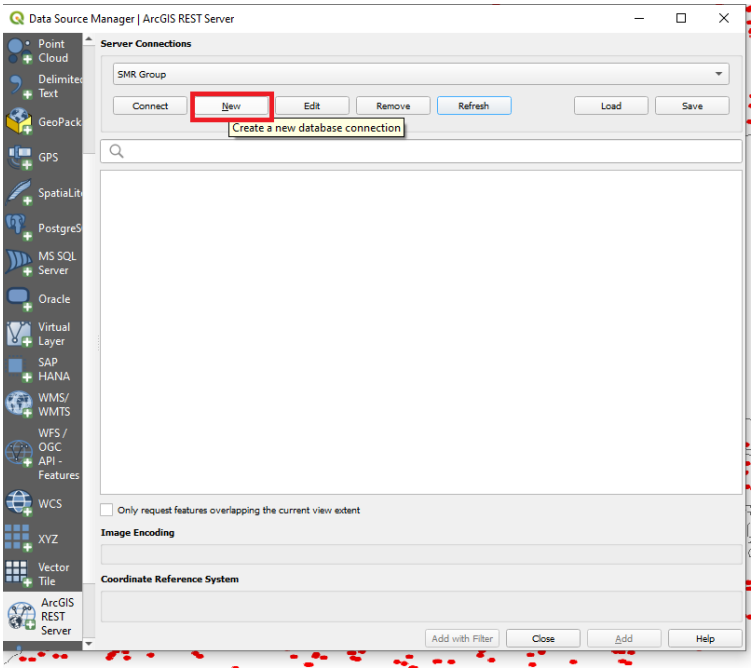
ArcGIS REST Web service in QGIS

In QGIS click “Layer”, then “Add Layer” then “Add ArcGIS REST Server Layer…” highlighted in screenshot below



(Screenshot of add layer in QGIS highlighting steps)

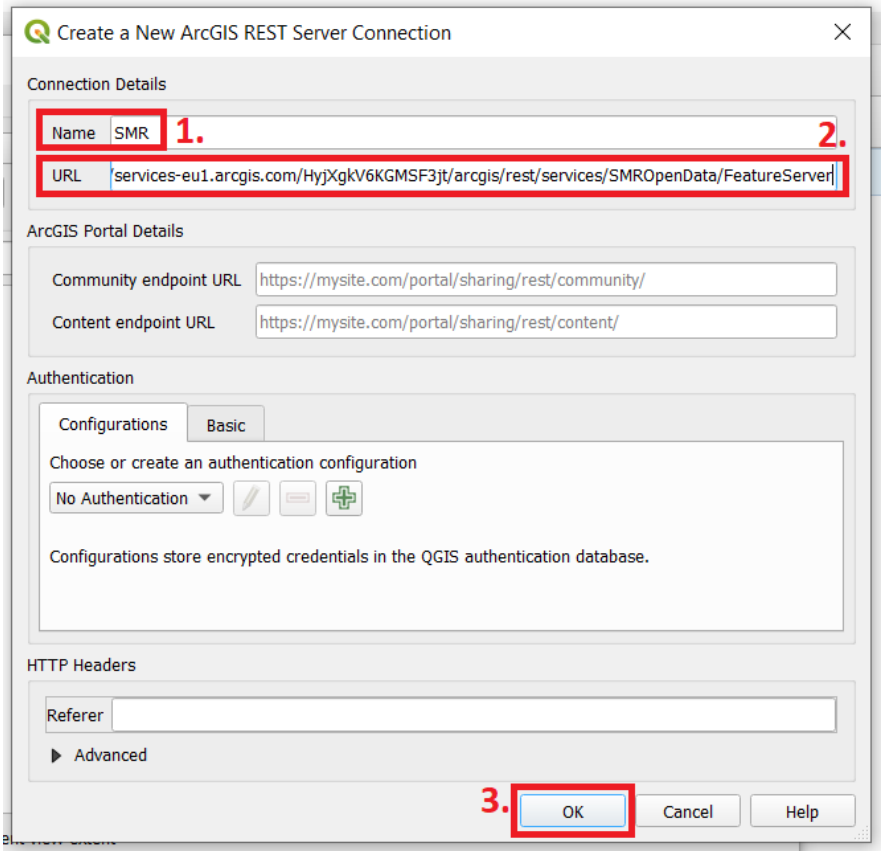
This will open the data source manager select new (see screenshot below)



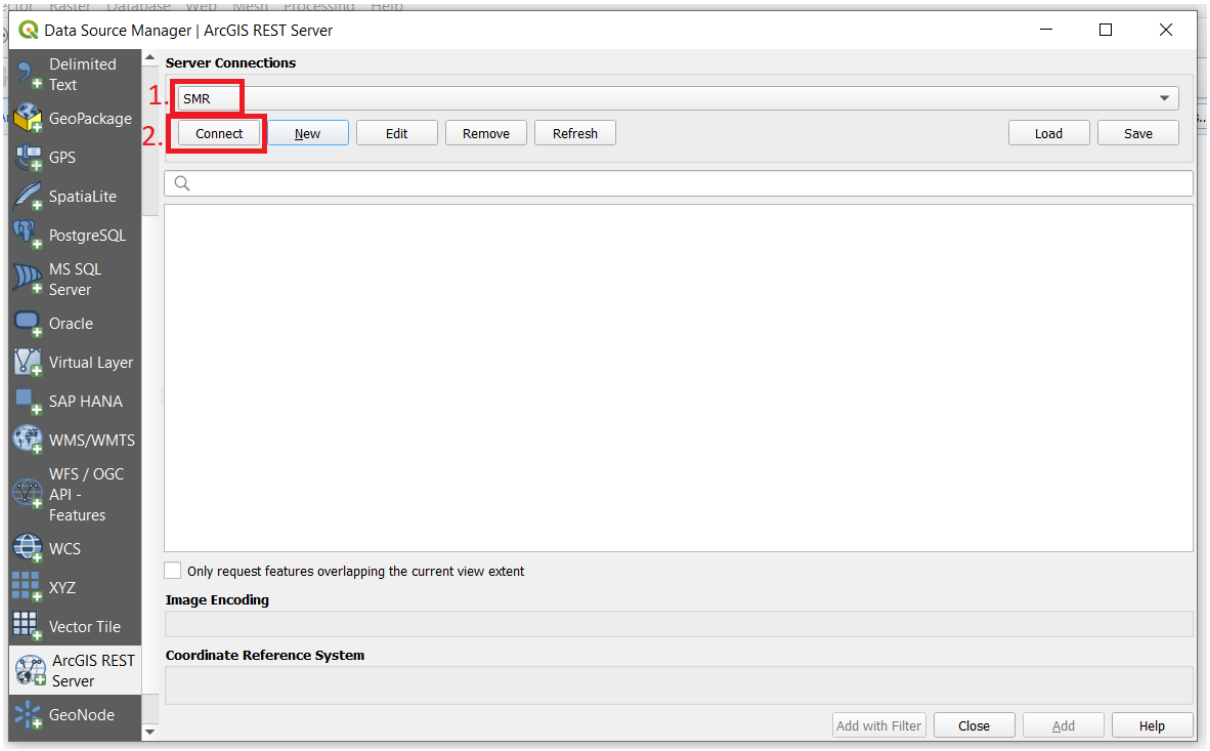
(Screenshot of Data Source manager, ArcREST Server with “new” highlighted)

This will open the “Create a New REST Server Connection” Dialogue box

Give the connection a name and paste in the URL/API like in ArcGIS then click okay (highlighted in screenshot below)



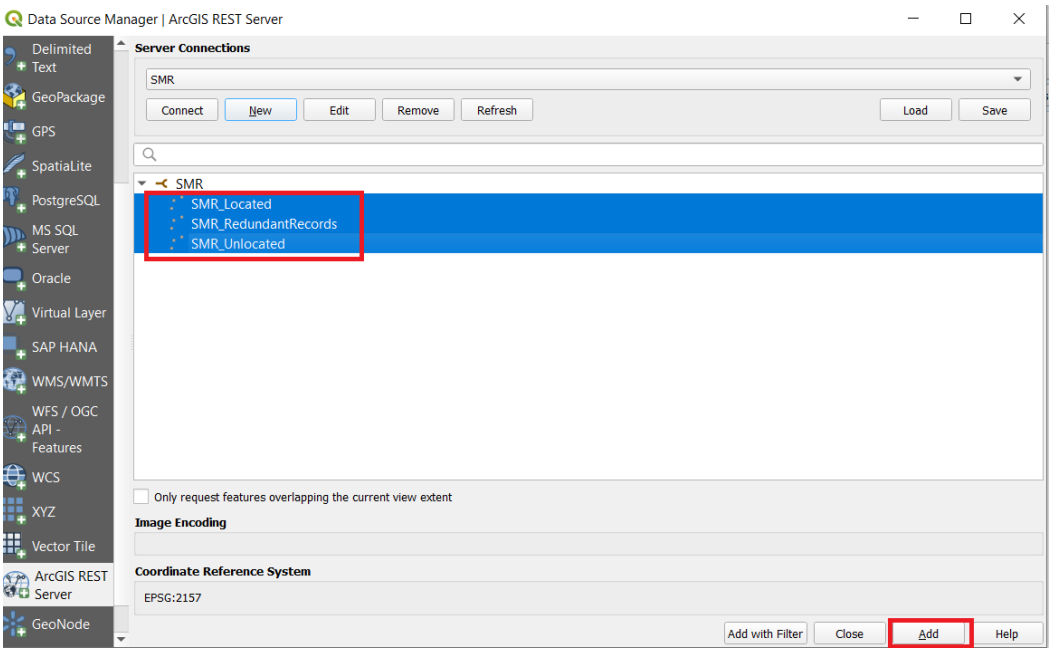
(Screenshot showing “Create a New REST Server Connection” Dialogue box adding url steps)



(Screenshot showing “ArcGIS REST Server” Dialogue box)

Under server connections select the name you just selected in the Create a New REST Server Connection dialogue box, in this instance it is SMR.

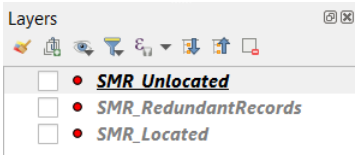
Click connect.



(Screenshot showing "ArcGIS REST Server" Dialogue box with a server connection added)

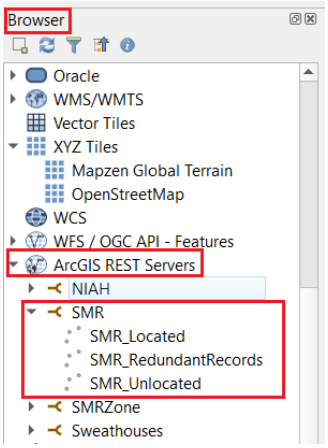
Highlight the layers that you wish to add to your man, in this instance all three layers are selected, then click add.

They should now appear in the layers' pane on the bottom left of your map space



(Screenshot showing the layers pane)

Alternatively, once you have made the server connection you can add it from the browser pane under "ArcGIS REST services" by just dragging the item down to the layers pane or onto the map space



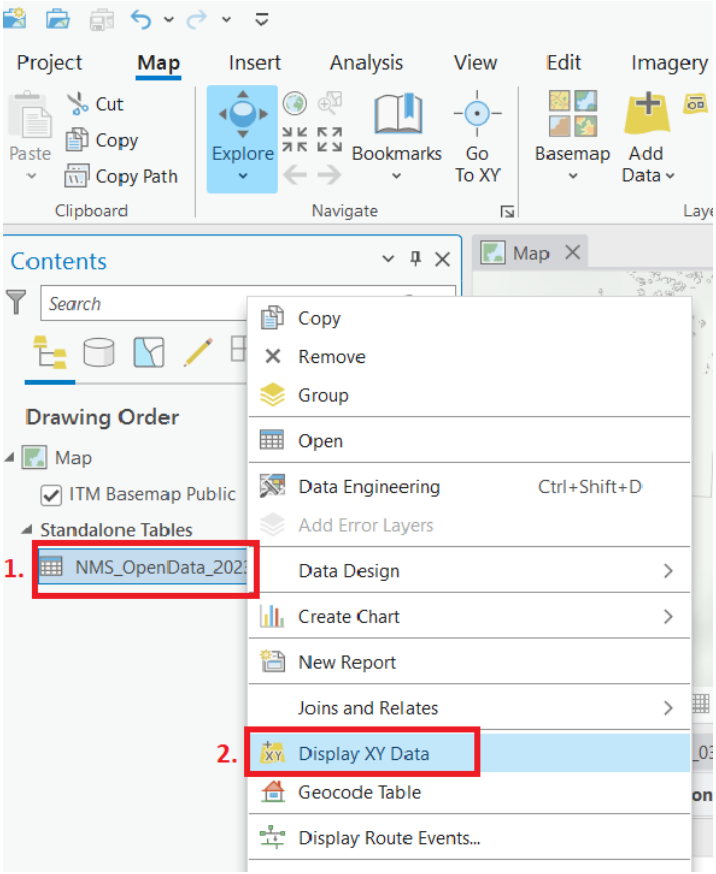
(Screenshot showing Browser pane and added ArcGIS REST services)

CSV Guide

The csv can be analysed in spreadsheet programs like excel or it can be used in spatial software programs like QGIS and ArcPro to generate shapefiles.

CSV in ArcPro

Add the csv to a project. Right click on the csv file in the contents pane then click on “display XY data”, as highlighted in the screenshot below.

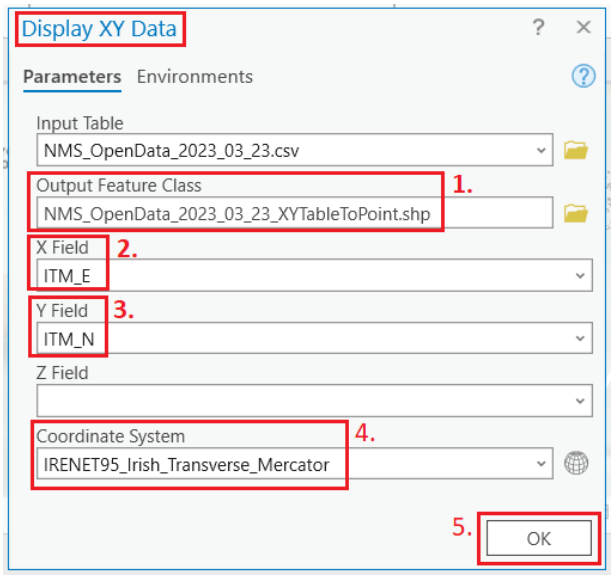


(Screenshot of display XY data in ArcPro)

This will open the “Display XY Data” dialogue box highlighted in screenshot below. In the output field (1.) navigate to the folder where you would like to save your new shapefile and name the new file appropriately.

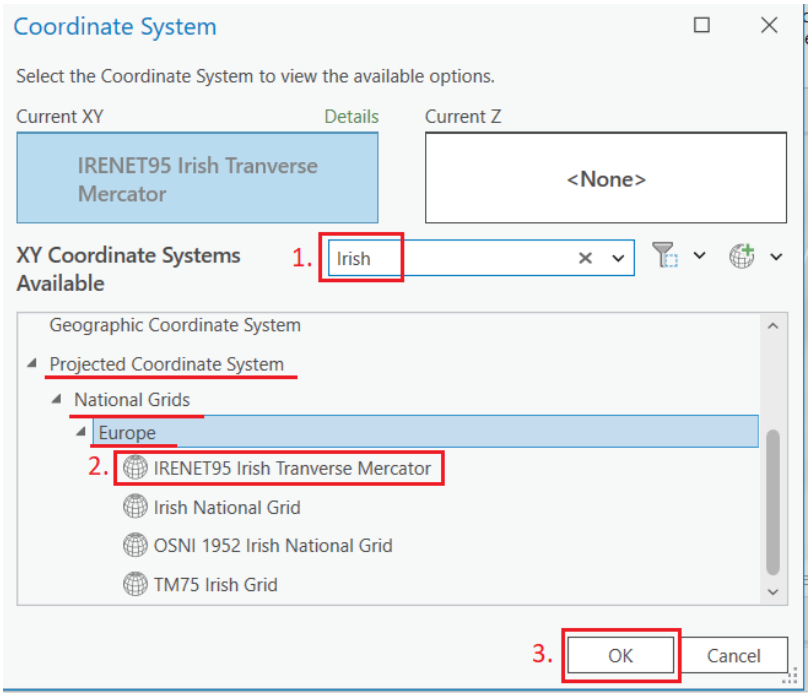
Adding ITM Coordinates;

In the X Field (2.) add “ITM_E” in the Y field (3.) add “ITM_N”, you can leave the Z Field blank. In the Coordinate System (4.) field click on the globe icon to search available coordinate systems this will open the “Coordinate System“ dialogue box.



(Screenshot of display XY data dialogue box in ArcPro)

In the "Coordinate System" dialogue box highlighted in screenshot below search "Irish" in the search box (1.) press enter. Next expand "Projected Coordinate Systems", "National Grids", "Europe". Select "IRENET95 Irish Transverse Mercator" (2.), Click okay (3.). This will close the "Coordinate System" dialogue box and return you to the "Display XY Data" dialogue box, Finally click "okay" (5.).

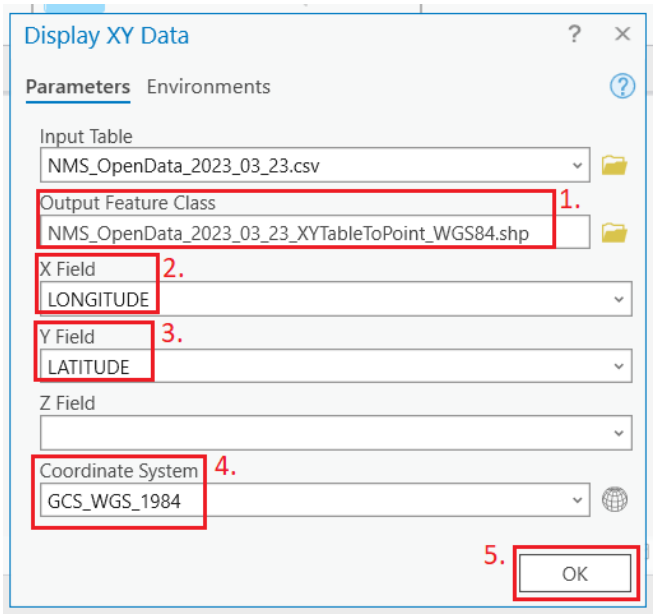


(Screenshot of Coordinate System dialogue box in ArcPro)

The new shapefile will automatically appear in the contents pane and display on your map.

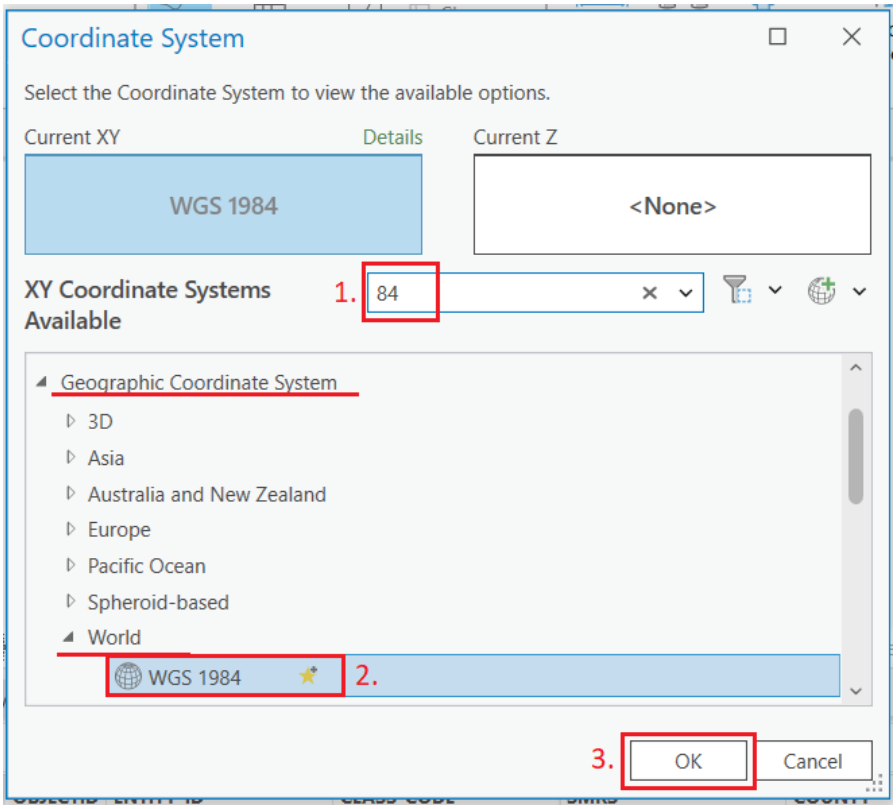
Adding Latitude Longitude Coordinates;

As above open the "Display XY Data" Dialogue box. In the X Field (2.) add "Longitude" in the Y field (3.) add "Latitude", you can leave the Z Field blank. In the Coordinate System (4.) field click on the globe icon to search available coordinate systems this will open the "Coordinate System" dialogue box, see screenshot below.



(Screenshot of display XY data dialogue box in ArcPro)

In the "Coordinate System" dialogue box highlighted in screenshot below search "84" in the search box (1.) press enter. Next expand "Geographic Coordinate Systems" and "World". Select "WGS 1984" (2.), Click okay (3.). This will close the "Coordinate System" dialogue box and return you to the "Display XY Data" dialogue box, Finally click "okay" (5.).

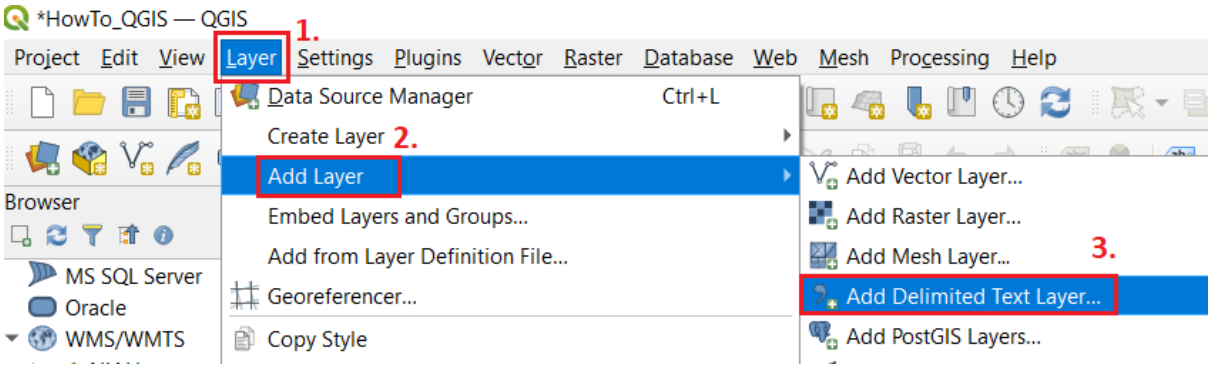


(Screenshot of Coordinate System dialogue box in ArcPro)

The new shapefile will automatically appear in the contents pane and display on your map.

CSV in QGIS

To display the csv in QGIS, first select “layer” (1.), then “add layer” (2.) and then “add delimitated text layer…” (3.) as highlighted in the screenshot below.

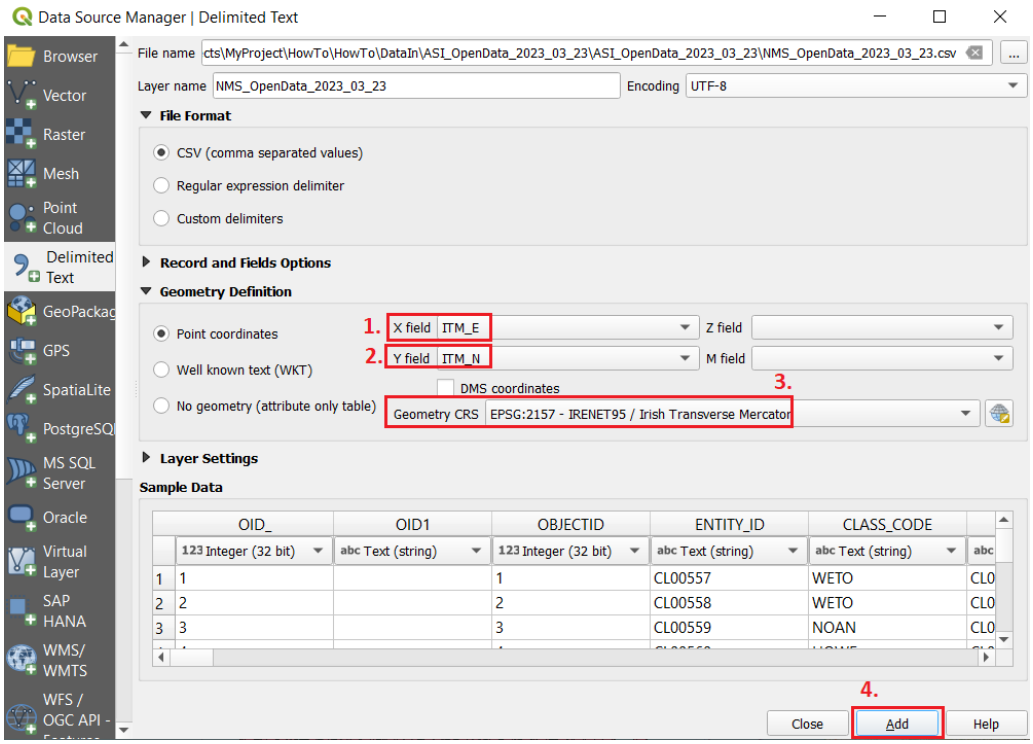


(Screenshot of “Add delimitated text layer …” pathway in QGIS)

This will open the “Data Source Manager| Delimited Text” Dialogue box highlighted in the screenshot below.

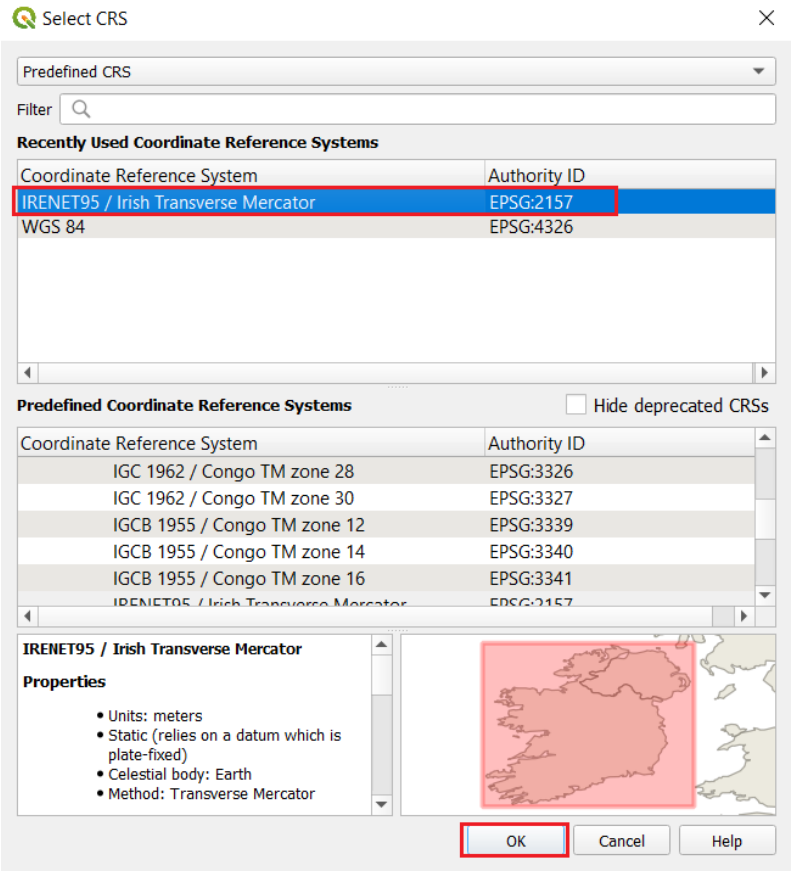
Adding ITM Coordinates;

In the X Field (1.) add “ITM_E” in the Y field (2.) add “ITM_N”, you can leave the Z Field blank. In the Geometry CRS (3.) field click on the globe icon to search available coordinate systems this will open the “Select CRS“ dialogue box. CRS stands for Coordinate Reference System.



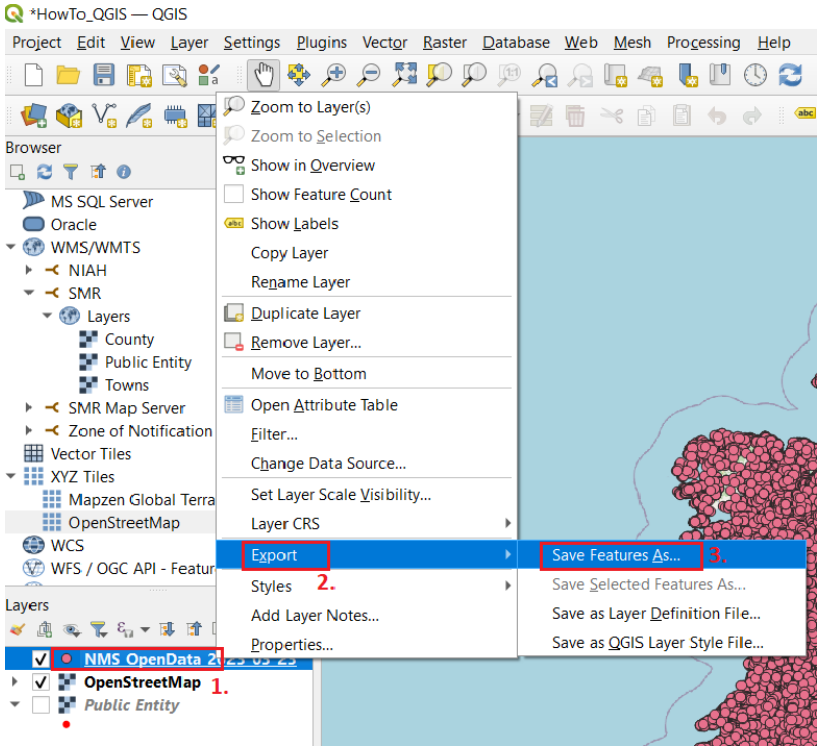
(Screenshot of the “Data Source Manager| Delimited Text” Dialogue box)

In the “Geometry CRS“ dialogue box highlighted in screenshot below search “Irish” in the search box. Select “IRENET95 Irish Transverse Mercator”, Click okay. This will close the “Geometry CRS “ dialogue box and return you to the “Data Source Manager| Delimited Text” dialogue box, Finally click “okay” (4.).



(Screenshot of the "Select CRS" Dialogue box)

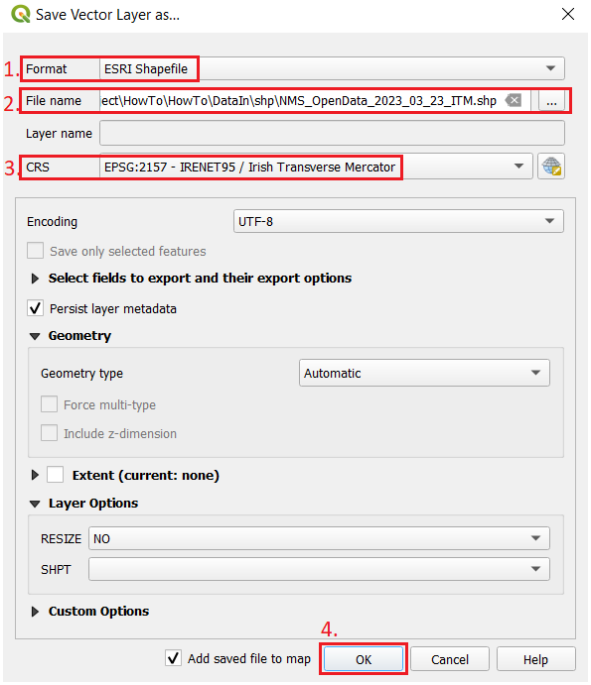
The CSV will now be displayed in the layers pane and the points on the map space. To save the displayed csv as a shapefile, right click on the layer in the layers pane (1.), next click "export" (2.) and then click "Save Feature as…" (3.) as highlighted in the screenshot below.



(Screenshot of "Save feature as …" pathway in QGIS)

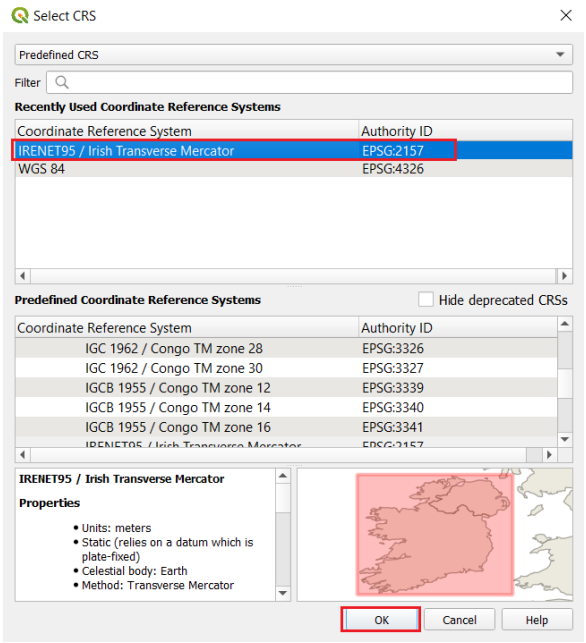
This will open the “Save Vector layer as …” dialogue box as highlighted in the screenshot below.

To create a shapefile select “ESRI Shapefile” In the Format field (1.), In the File name (2.) field navigate to where you wish to save your new shapefile and name it as desired. In the Geometry CRS (3.) field click on the globe icon to search available coordinate systems this will open the “Select CRS“ dialogue box.



(Screenshot of “Save Vector Layer as …” dialogue box in QGIS)

In the “Geometry CRS“ dialogue box highlighted in screenshot below search “Irish” in the search box. Select “IRENET95 Irish Transverse Mercator”, Click okay. This will close the “Geometry CRS “ dialogue box and return you to the “Save Vector layer as …” dialogue box, Finally click “okay” (4.).



(Screenshot of the “Select CRS” Dialogue box)

The SHP will now be displayed in the layers pane and the points on the map space.

KML Guide

Opening KML in Google Earth

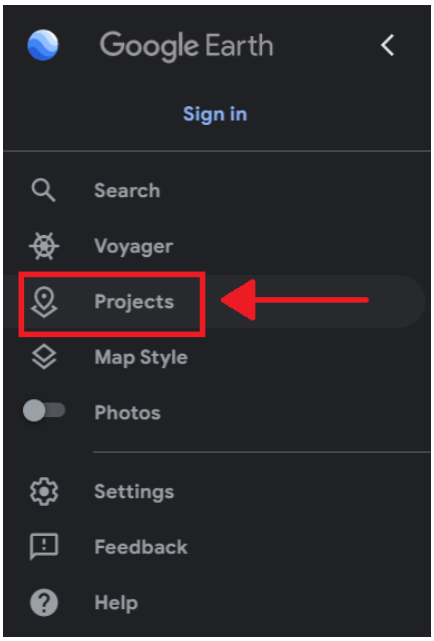
Google Earth Pro is the free desktop version of Google Earth and Google Earth Web is the browser version.

Google Earth Pro is available for download here; https://www.google.com/earth/versions/#earth-pro

Google Earth Web is available to access on a web browser here; https://earth.google.com/web/

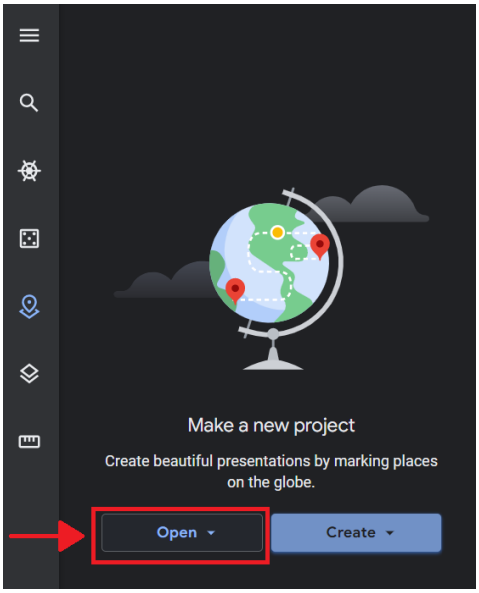
If you have trouble accessing Google Earth Web through your browser try a different browser.

To add a KML or KMZ file to Google Earth Web, first open Google Earth Web on a web browser. Open the "projects option" highlighted in the screenshot below.



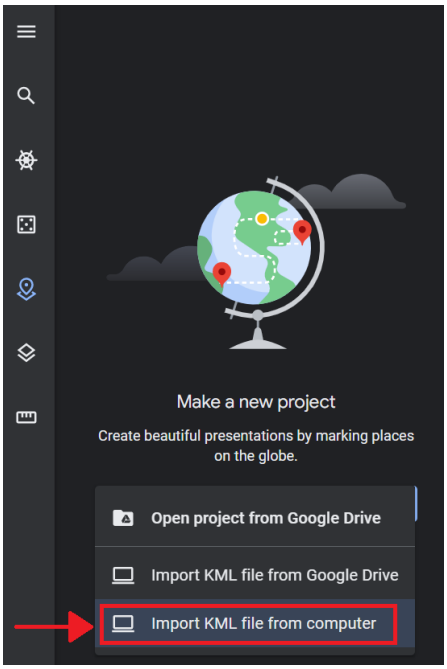
(Screenshot showing Google Earth with the Projects option highlighted)

Next select the "Open" option highlighted in the screenshot below.



(Screenshot showing Google Earth with the ”Open” option in Projects highlighted)

Then select the “Import KML file from computer” option highlighted in the screenshot below.

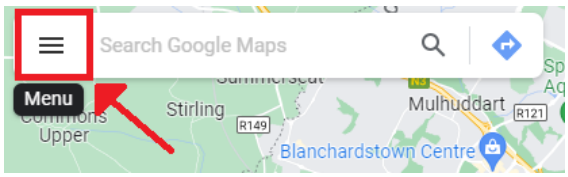


(Screenshot showing Google Earth with the “Import KML file from computer” option in Projects highlighted)

Navigate to you desired KML/KMZ folder and add it to the project.

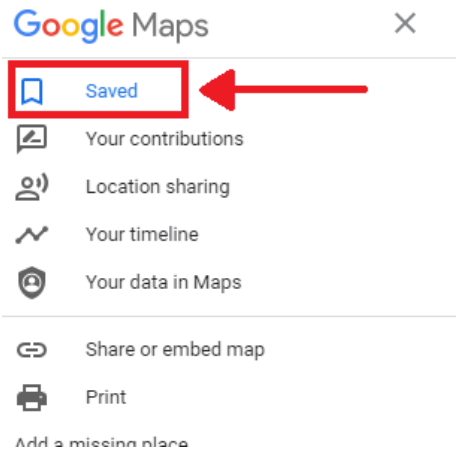
Opening KML in Google Maps

First sign into google maps (a Gmail account is required for this) then select the menu button highlighted in the screenshot below.



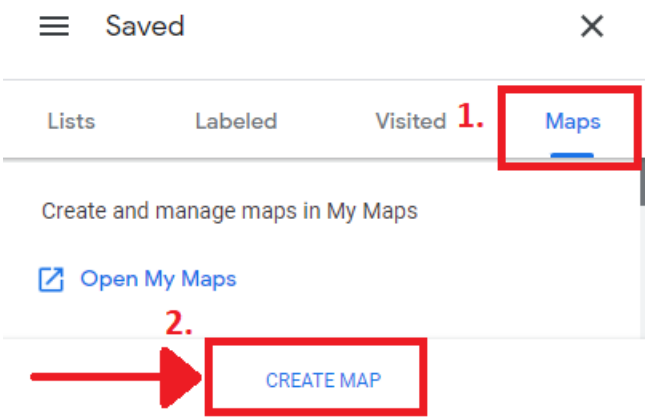
(Screenshot showing Google Maps with the “Menu” option highlighted)

Click into the saved options highlighted in the screenshot below.



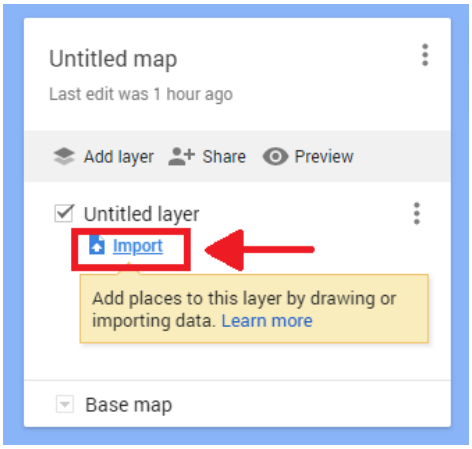
(Screenshot showing Google Maps with the “Saved” option highlighted)

On the saved tab, first select “Maps” the select “Create Map” as highlighted in the screenshot below.



(Screenshot showing Google Maps with the “Maps” option and “Create Map” highlighted)

Choose the “Import” option as highlighted in the screenshot below.



(Screenshot showing Google Maps with the “Import” option highlighted)

Navigate to you desired KML/KMZ folder and add it to the map. Note the maximum size of kml that can be added to Google Maps is 5 MB.