Upload Shapefile

A Shapefile is an ESRI digital vector (non-topological) storage format for storing geometric location and associated attribute information that can be generated by a wide variety of GIS software packages[1]

File format

Shapefile data example:

NNRD_2018_AEM_Lines	ArcGIS Layer	3 KB	No	9 KB	75%	6/8/2020 5:03 PM
NNRD_2018_AEM_Lines	QGIS Project	7 KB	No	7 KB	2%	6/8/2020 5:03 PM
NNRD_2018_AEM_Lines	Adobe Illustrator Tsume File	1 KB	No	1 KB	44%	6/8/2020 5:03 PM
NNRD_2018_AEM_Lines.cpg	CPG File	1 KB	No	1 KB	0%	6/8/2020 5:03 PM
NNRD_2018_AEM_Lines.dbf	DBF File	2 KB	No	36 KB	95%	6/8/2020 5:03 PM
NNRD_2018_AEM_Lines.prj	PRJ File	1 KB	No	1 KB	41%	6/8/2020 5:03 PM
NNRD_2018_AEM_Lines.sbn	SBN File	1 KB	No	1 KB	33%	6/8/2020 5:03 PM
NNRD_2018_AEM_Lines.shp	SHP File	102 KB	No	276 KB	64%	6/8/2020 5:03 PM
NNRD_2018_AEM_Lines.shp	XML Document	4 KB	No	20 KB	82%	6/8/2020 5:03 PM
NNRD_2018_AEM_Lines.shx	SHX File	1 KB	No	1 KB	28%	6/8/2020 5:03 PM

- The *.shp, *.shx, *.dbf, and *.prj files at a minimum must be selected from your computer using the upload button feature under the Data Administration Tab of the Nebraska GeoCloud (NGC). Select all of the files from your computer related to the shapefile with the control or shift key and hit open.

Name

The name should consist of a short (~1 – 5 words) description of the point, line or polygon shapes the feature file represents including the geographic place name (abbreviated NRD name, other commonly abbreviated place names) and/or general time period if applicable (i.e. NNRD 2018 AEM Lines, ENWRA ASH Nitrates 2017, SQS2 WLs Fall 2016 etc.). The file name and the name entered into the Shapefile Information Box should match (you can use the space bar for the name field of the information box instead of the underscore '_' which is typical for shapefile component names). The shapefile name must be unique in comparison to previously uploaded shapefiles on the NGC.

> *Example:*
>
> **Name**   NNRD 2018 AEM Lines
>
> *Example:*
>
> **Name**   Nebraska GW Levels Spring 2017 to Spring 2018

Note: The submitted shapefile set must contain only one Geometry (all points, all lines or all polygons - no mixing of feature types in the shapefile).

Description

The description should contain as much of the following information as possible, if it applies:

- A description of the points, lines or polygons which the shapefile represents;
- Consultant or institution responsible for creating the shapefile;
- Short citation of report or publication (i.e. USGS SIR 2013-1268, CSD Water Survey Paper Number 86 [Fig. 7]);

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[1] Nebraska Information Technology Commission, *Technical Standards and Guidelines CHAPTER 3GEOGRAPHIC INFORMATION SYSTEMS:* https://nitc.nebraska.gov/standards/3-Chapter.pdf).

- Units of measurement for the feature values;
- Feature resolution (for contour lines);
- Any modification or processing performed on the features that cause them to differ from the source file (e.g. down-sampling to a coarser resolution, smoothing operation, clipping to boundary, etc.)

Example:

Composite statewide transmissivity map from Korus et al. 2013 'The Groundwater Atlas of Nebraska' Resource Atlas No. 4b.

Example:

SkyTEM 304M 'As flown' Flight Lines collected in the NNRD in 2018 from AquaGeoFrameworks, LLC 'Airborne Electromagnetic Mapping and Hydrogeologic Framework of Selected Regions of the ENWRA Area' Chapter on the NNRD, Flight Lines renamed and attributed by Darcy Boellstorff on behalf of ENWRA December 2019.

Type:

Indicate the shapefile feature type: point shapefile, line shapefile or polygon (area) shapefile
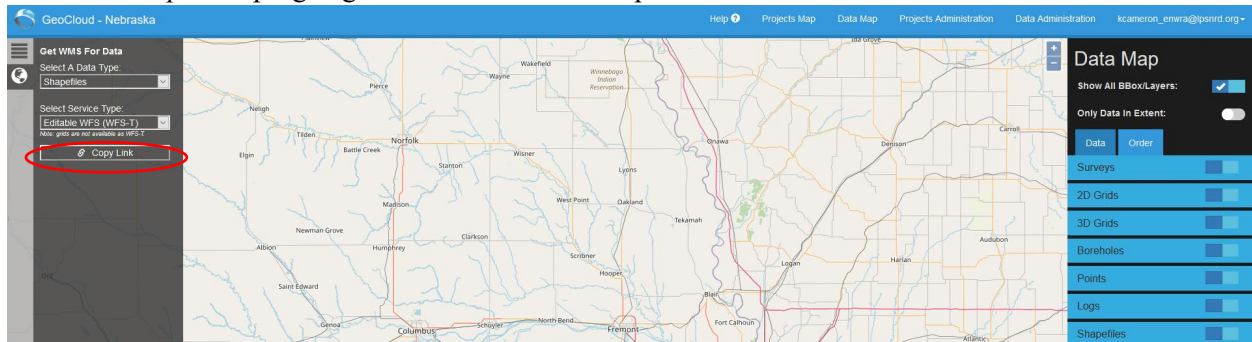
Epsg:

- The EPSG value for NAD 83 State Plane meters is 32104

Style (Optional):

Once the shapefiles have been uploaded successfully, you can style your shapefiles with QGIS:

- Get the shapefile WFS URL from the 'Data Map' page (upper left, copy WFS-T link)

    Example: http://gc2.geocloud.live/wfs/ne/shapefiles/4326


- Open a new blank project in QGIS and right click on WFS under the browse window on the left and select new connection. Paste the link you copied, name it (Ex: Shapefiles) and hit ok. Now all shapefiles available from the NGC Data Map will display in the QGIS WSF connection list on the left.

Example:
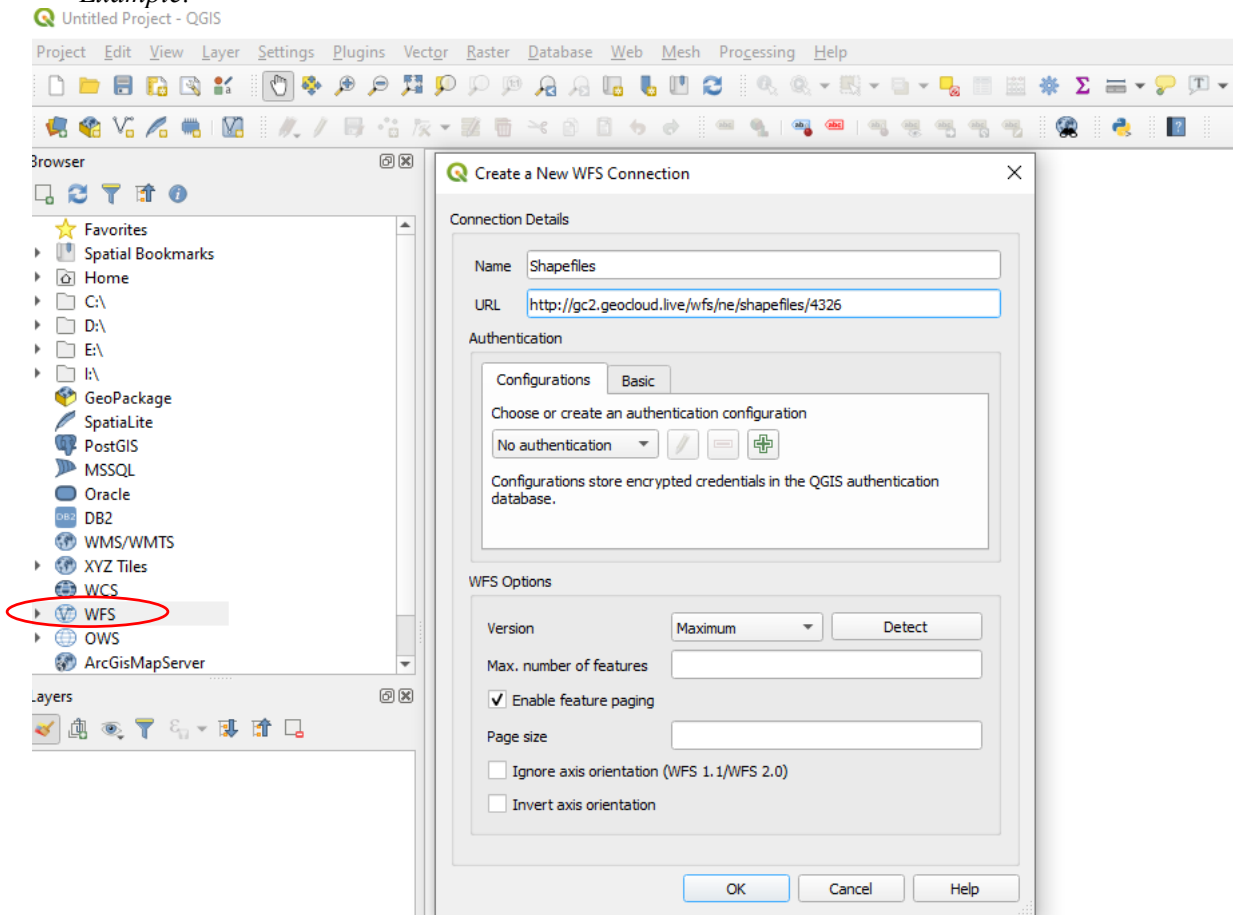
- Once the WFS is connected, find the file you desire to format from the listed shapefiles (you may need to right click properties on each, try the bottom one first). Right click the file once you found it and click add layer to Project.

Example:
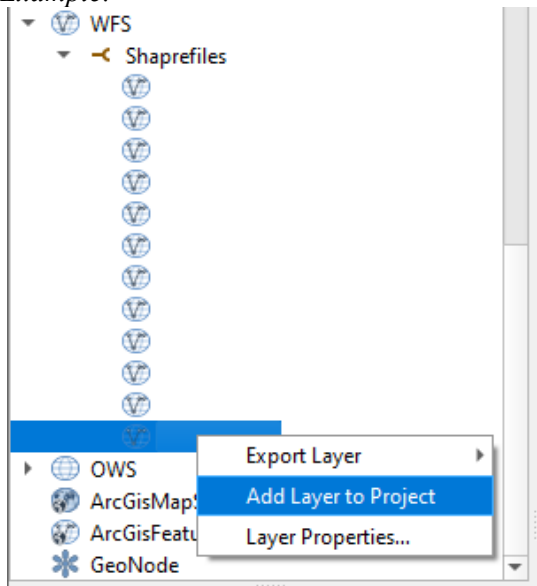
- The shapefile will now be listed as a layer in your QGIS Project. Right click on the new layer file and hit properties. Add details to each of the file properties (listed vertically on the left of the properties window) as desired and style the file under the Symbology property (QGIS help: https://docs.qgis.org/3.10/en/docs/user_manual/working_with_vector/vector_properties.html#symbology-properties).
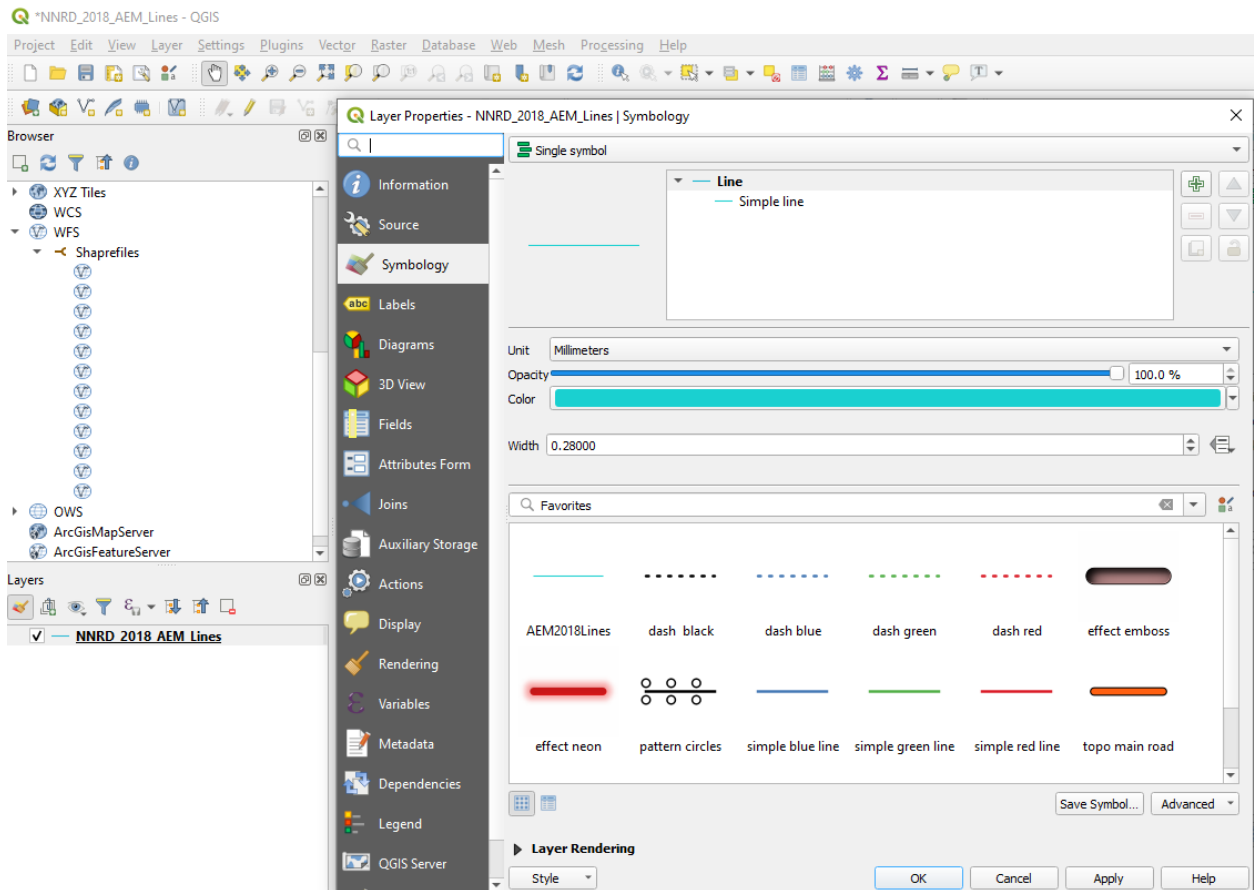
- Once you have set the symbology properties, click 'Save as' under the Project menu at the top left. Select .qgs as the file type to be saved (program defaults to '.qgz' compressed file but you need to save it as a '.qgs' project file).

- Under the NGC Data Administration tab, click 'Data', then 'Shapefiles' and upload the .qgs file you just created by clicking the green Upload style button:

- You should see a green check mark pop-up to let you know if the style was applied to the shapefile correctly. Go to the Data Map and your shapefile should appear with the new symbology changes.

4