

## QGIS Map Theming

Topics covered:

- Data exploration using attributes
- Importance of metadata
- Categorized styling
- Graduated styling
- Copying/saving styles

### Tutorial

#### Categorized Styling

Categorized styling is used to show spatial patterns by styling features by attribute. Categorized styling works best for features with a limited number of possible attributes (i.e. not a continuous range of values).

1. Open QGIS and add Skeena\_ESI-T1\_Wetland\_20191219.gdb (drag folder onto canvas)

Synology > 1 Working Directory > AGIS training > GIS Layers

2. Explore the data layer attributes

Right click on layer > Open Attribute Table

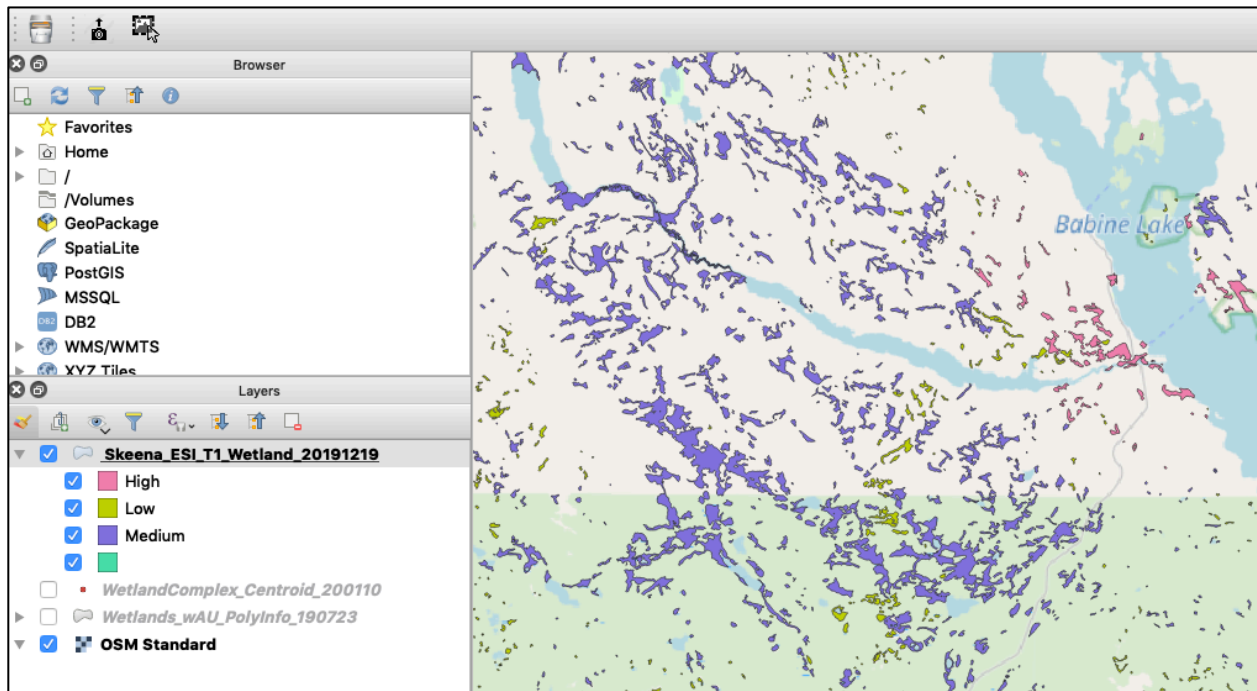
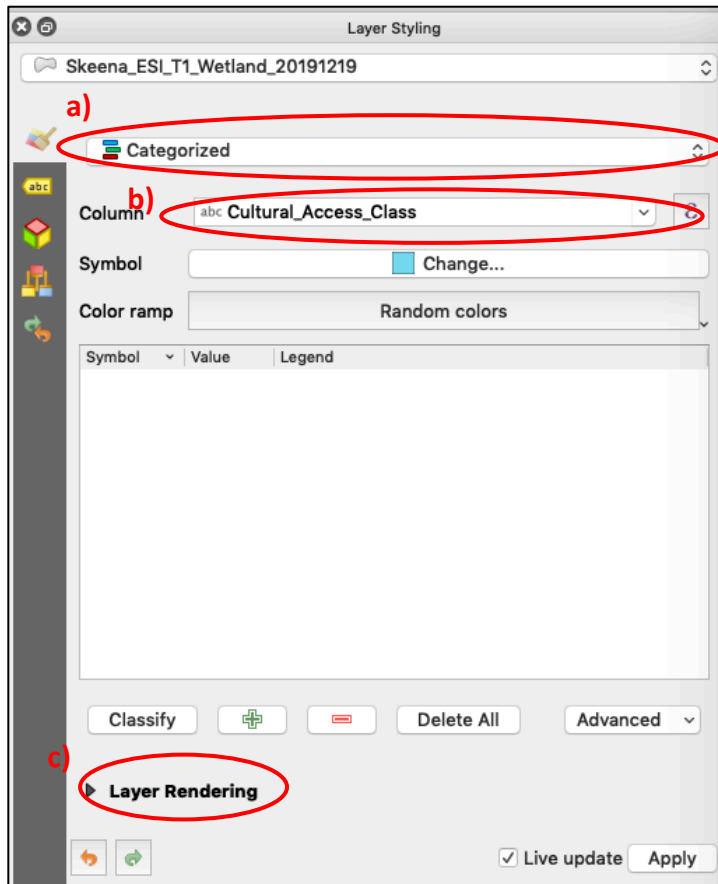
What do the attributes mean? Do we have all the information we need to interpret the results? What units are the results in? What attribute would be useful to show with a categorized style?

Hint: See Skeena ESI Wetland Data Dictionary.

3. Apply a categorized style to the Cultural Access Class attribute

Properties > Styles

- a. Select Categorized
- b. Select Cultural\_Access\_Class under Column
- c. Click on "Classify" and then Apply/Ok



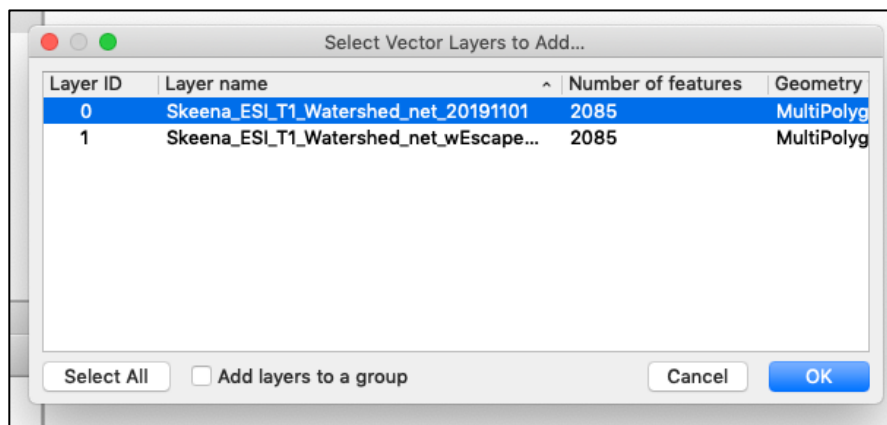
## Graduated Styling

Graduated styling is best utilized for numerical attributes and shows the geographical distribution and range of values present in the dataset. Graduated styling can also be used to apply thresholds to datasets.

4. Add Skeena\_ESI-T1\_Watershed\_net\_20191101.gdb (drag folders onto canvas)

Synology > 1 Working Directory > AGIS training > GIS Layers

Select Layer ID 0 only:



5. Explore the data layer attributes

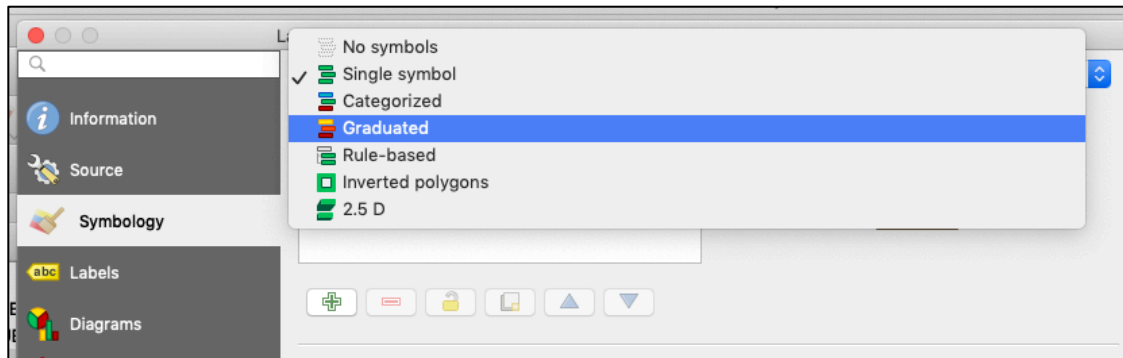
Right click > Open Attribute Table

What do the attributes mean? Do we have all the information we need to interpret the results? What units are the results in? What attribute would be useful to show with a categorized style?

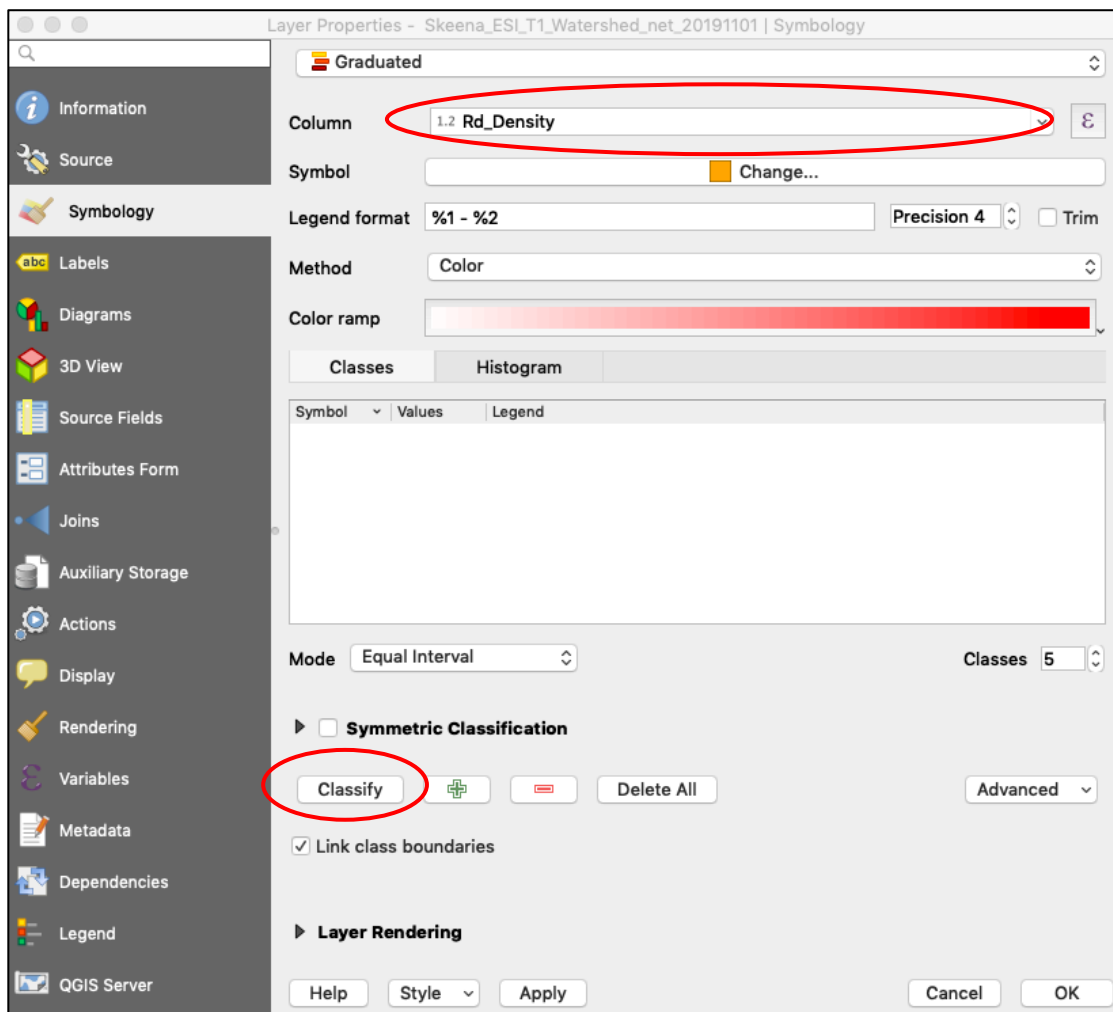
Hint: See page 114 of Skeena ESI Fish Habitat Report (in GIS Layers).

6. Apply a graduated style to the Skeena\_ESI\_T1\_Watershed\_net\_20191101 data layer

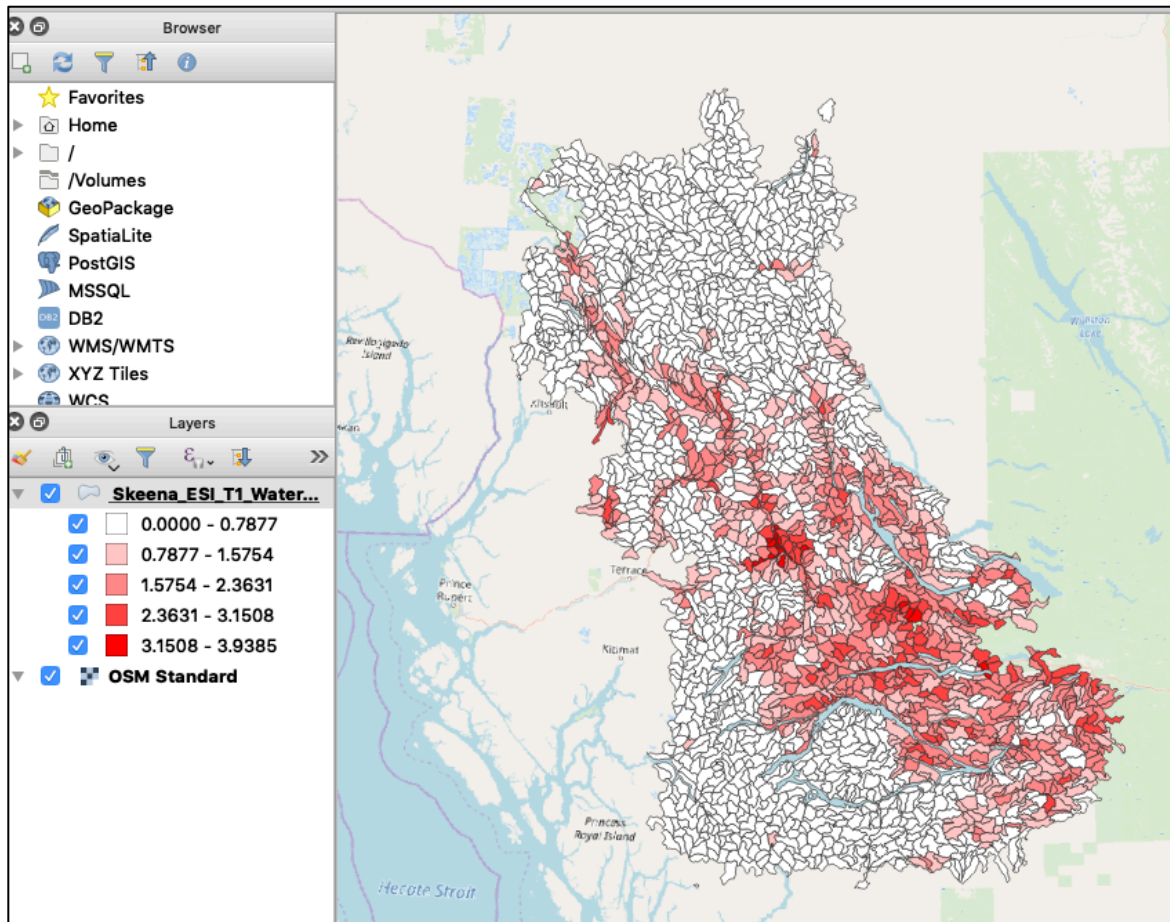
Properties > Symbology > Graduated Style



Select the **Rd\_Density** attribute under column and click on “Classify”



By default the data will be divided into 5 equal classes based on the range of data values.



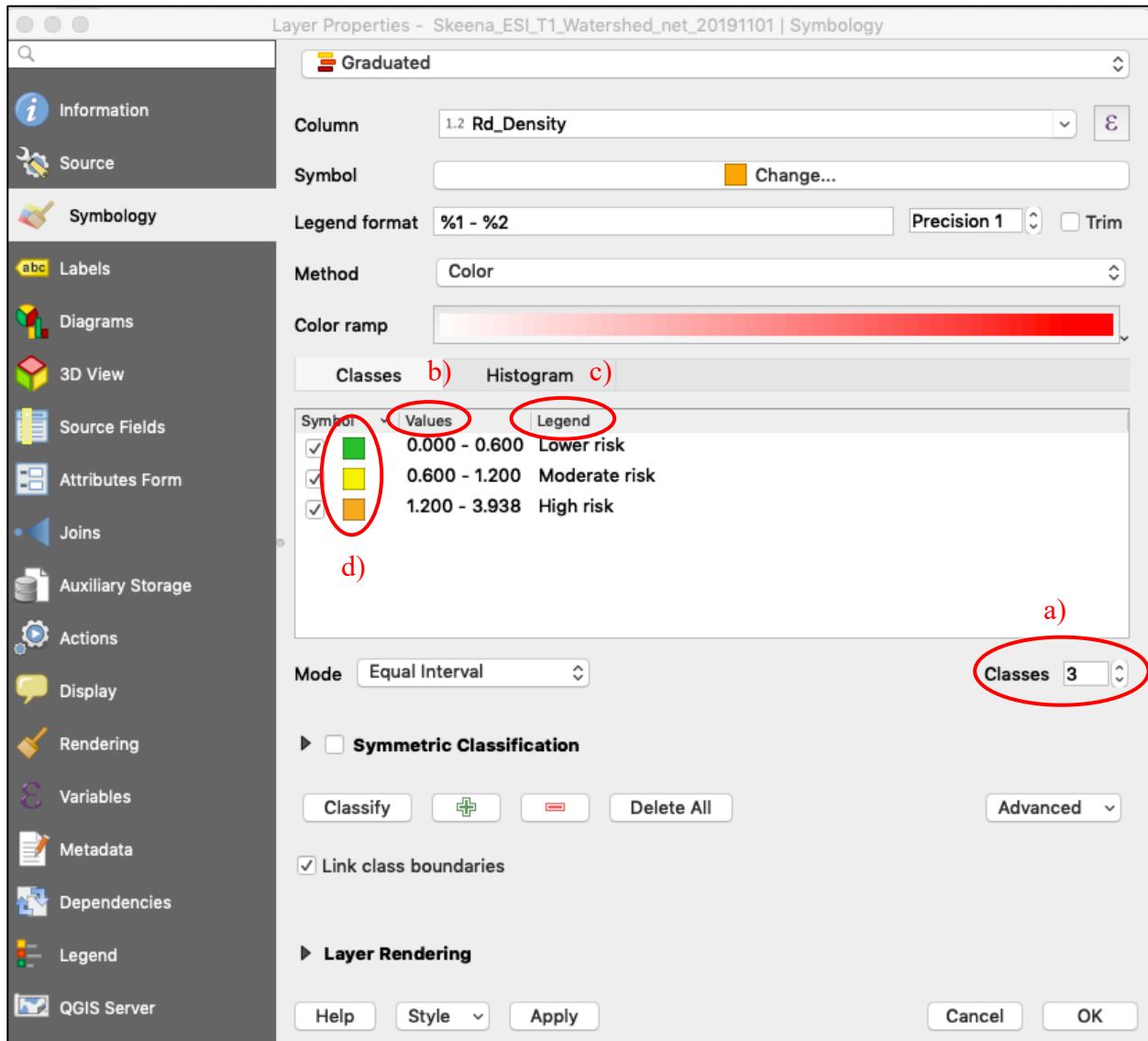
7. Apply the following thresholds to the Skeena\_ESI\_T1\_Watershed\_net\_20191101 data layer from the Fish and Fish Habitat Current Condition Report:

- < 0.6 km/km<sup>2</sup> = lower risk
- 0.6 – 1.2 km/km<sup>2</sup> = moderate risk
- > 1.2 km/km<sup>2</sup> = higher risk

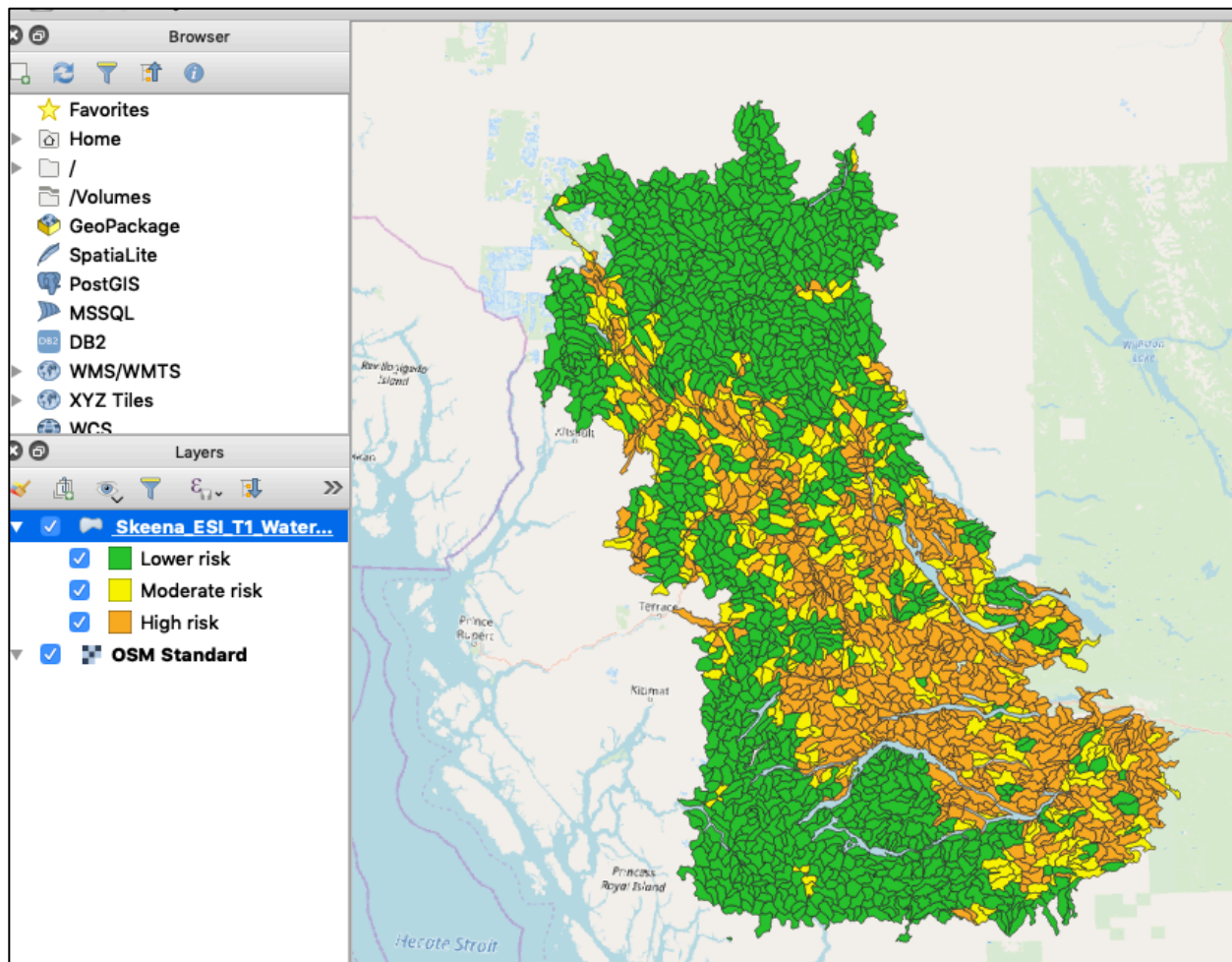
Properties > Symbology

- a) Change the number of classes to 3
- b) Change the values of the classes to the above thresholds (double-click on the Values)\*
- c) Rename the entries under Legend to “Lower Risk”, “Moderate Risk”, and “Higher Risk”
- d) Change the colours to green, yellow, and orange (double-click on the colour square to open the colour panel)

**\*Note: the Legend values will not automatically update when the Values are changed**



Click Apply or Ok



Note: This process does not change the data, it just changes how the data is displayed.

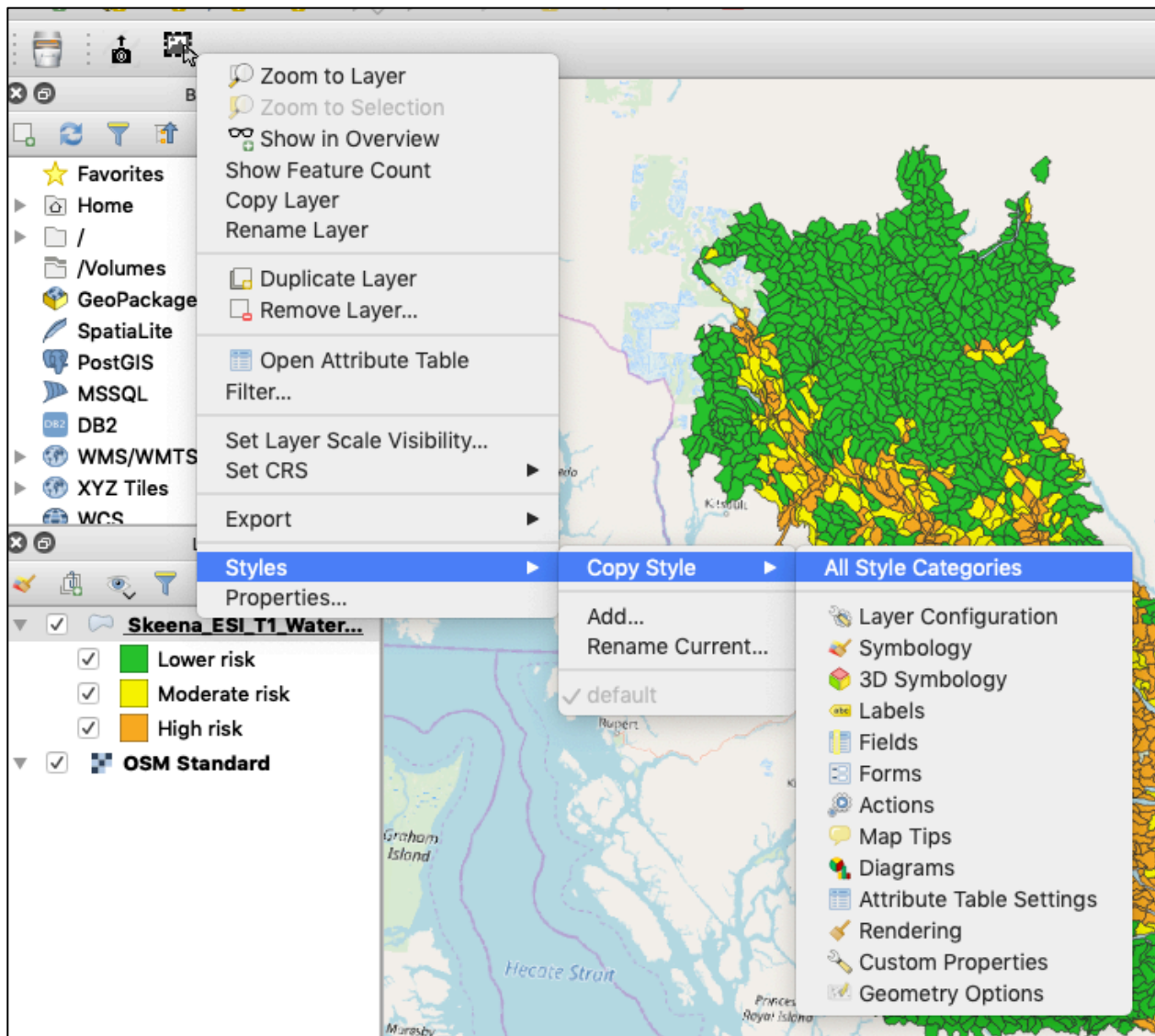
## Copying and Saving Styles

Copying and saving styles can save you a lot of time if working with similar layers and styles in different QGIS projects.

Copying a style saves a style temporarily on your clipboard to be applied in your active project. This is handy if you want to theme multiple layers the same colour or style (e.g. streams and rivers, roads, etc.)

To copy a style:

Styles > Copy Style > All Style Categories



To paste a style:

Styles > Paste Style > All Style Categories

\*If you only want to copy certain elements of a style, you can select from the menu.

Saving a style allows you to access and apply that style to layers in different QGIS projects.

## 8. Save your road density style

Export > Save as QGIS Layer Style File...



Save the file in AGIS Training > GIS Layers > Day 3 > Layer Styles

Use the ESI File Naming Convention:

Layer keyword-style\_style description\_style\_modification date