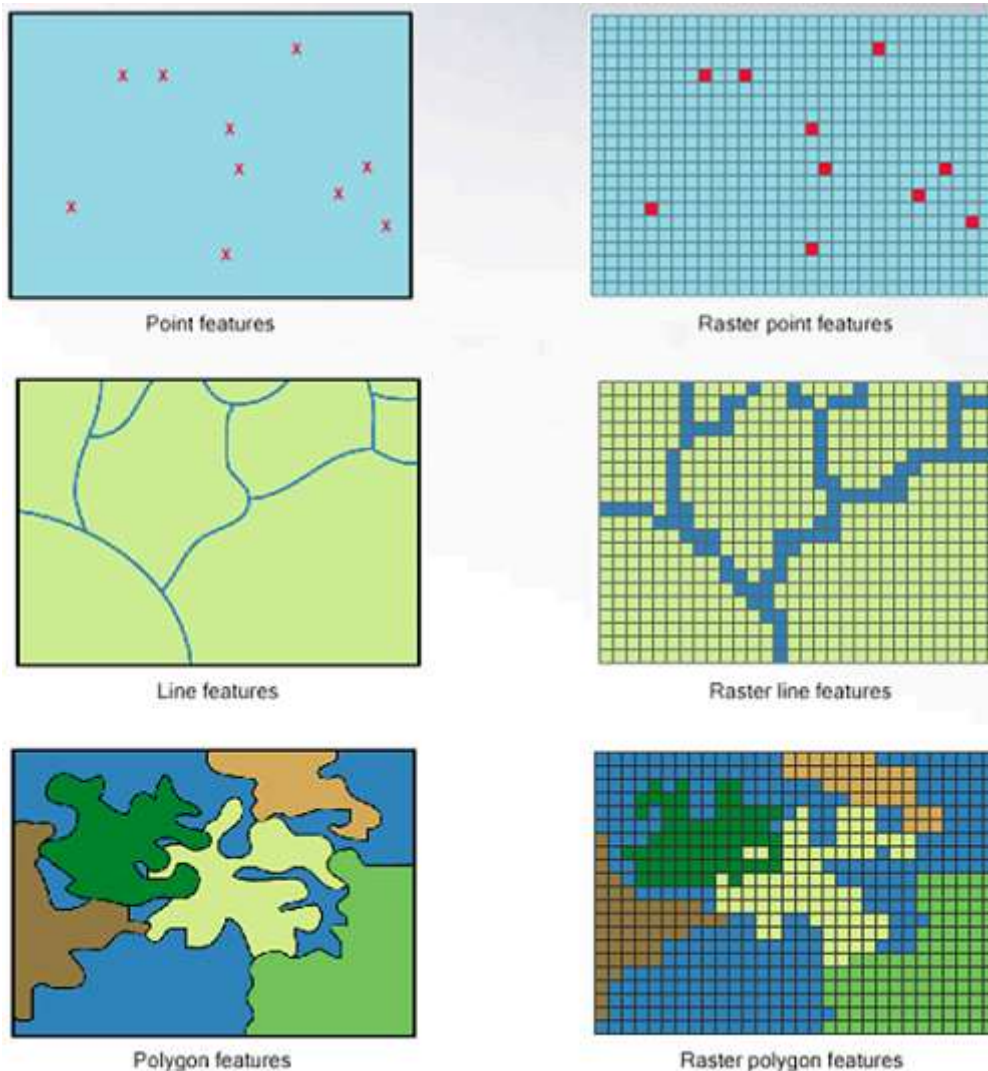


Framework Data



In this module, we start out with **framework data themes** of our **National Spatial Data Infrastructure (NSDI)**.

This module consists of a quiz on about the first half of Chapter 6, then a second quiz on the second half of Chapter 6. Finally there is a discussion that can be a reflection on what you have learned or a place to post questions about technical difficulties you've experienced in the course, or even in GIS 130 if you are taking that class, or recently completed it and still have questions.

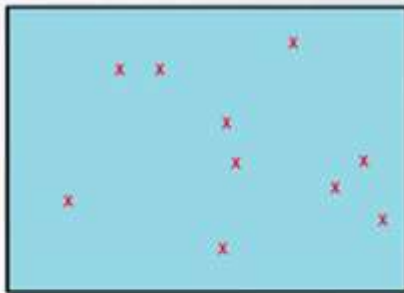
After you take the first quiz, you should be able to:

1. Explain how the distribution of authority for mapping and land title registration among various levels of government affects the availability of framework data;
2. Describe how topographic data are compiled from aerial imagery

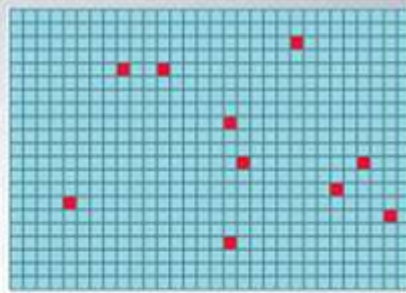
Checking in with a quick review of raster and vector data:

Do you know the [difference between raster data and vector data](http://gsp.humboldt.edu/olm/Lessons/GIS/08%20Rasters/RasterToVector.html) ➡

(<http://gsp.humboldt.edu/olm/Lessons/GIS/08%20Rasters/RasterToVector.html>)? This is an essential bit of information to know before we dive deeper into GIS. Raster data is presented as pixels. When topo (topographic) maps are scanned and turned into DRGs ([section 5 in the chapter](https://www.e-education.psu.edu/natureofgeoinfo/c6_p6.html)) ➡ (https://www.e-education.psu.edu/natureofgeoinfo/c6_p6.html), they are turned into **raster** (pixel) data, like the images on the right, below. The images on the left represent **vector** (point, line, and polygon) data.



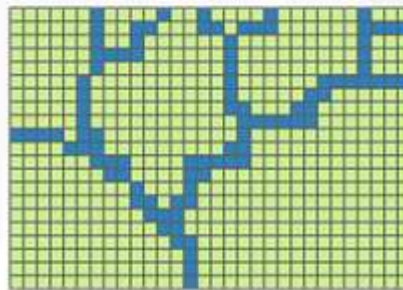
Point features



Raster point features



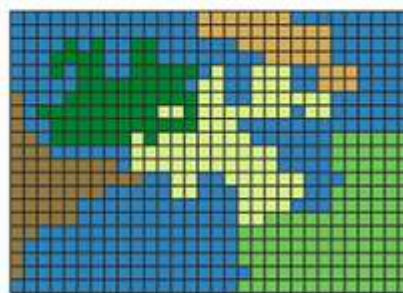
Line features



Raster line features



Polygon features



Raster polygon features

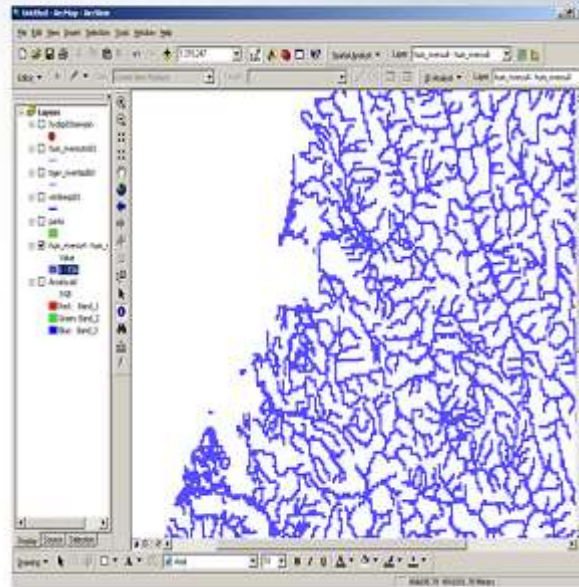
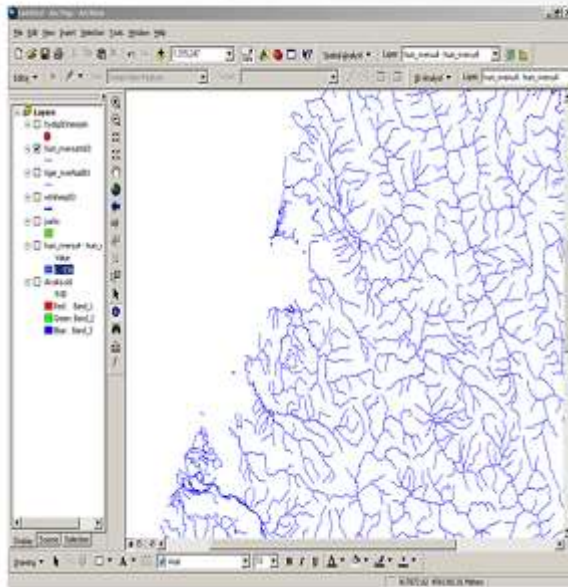
Source: <http://gsp.humboldt.edu/olm/Lessons/GIS/08%20Rasters/RasterToVector.html> ➡ (<http://gsp.humboldt.edu/olm/Lessons/GIS/08%20Rasters/RasterToVector.html>)

You can convert back and forth between the two types of data, but not without error and losing or changing some of the properties of the original data.

Vector



Raster



Source: <http://gsp.humboldt.edu/olm/Lessons/GIS/08%20Rasters/RasterToVector.html> ↗ (<http://gsp.humboldt.edu/olm/Lessons/GIS/08%20Rasters/RasterToVector.html>)_