# Design Studio I - Vizualization

**UNM SA•P ARCH 601 Fall 2015**
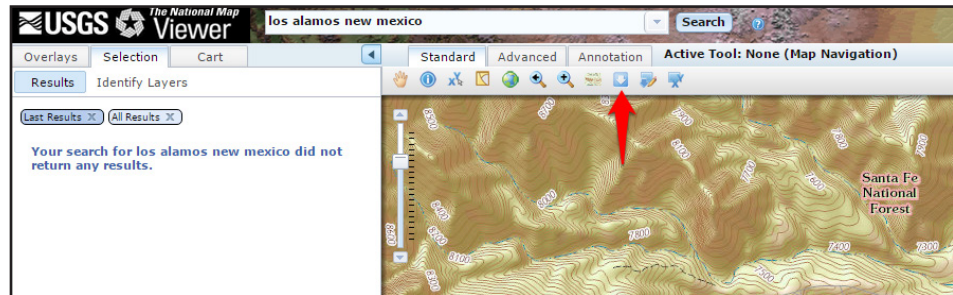**Alex Webb + Stephen Dent + Arthur McGoey**

## Downloading USGS GIS Information

**DESCRIPTION**
In helping us represent a place, paticularly one with some signifcant topographic features, the United States Geologic Survey (USGS) has a wealth of GIS information available to all.  In particular, digital elevation models, DEMs, and orthoimagery (aerials) can be used to construct context models.
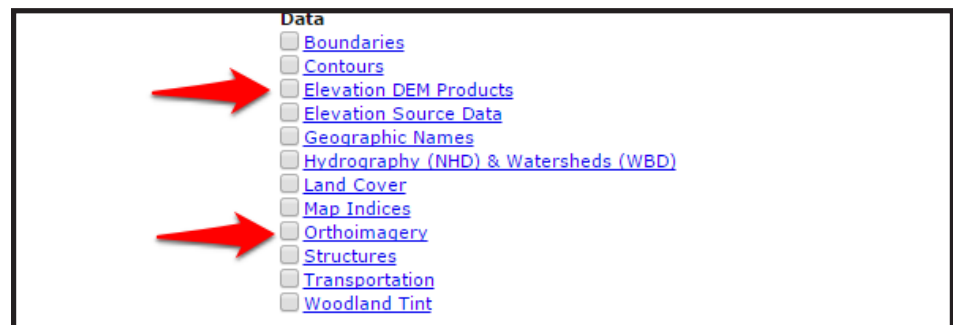
USGS has two primary portals for downloading GIS information.  The first is the National Map which includes data within the United States and tends to have better quality information.  The second is Earth Explorer, which has data from around the world, though its resolution tends to be less than optimal.

**THE NATIONAL MAP**
To download information from USGS's National Map:

1. Open a web browser and navigate to http://viewer.nationalmap.gov/viewer/
2. Either zoom and pan into the location you are interested in or use the search bar at the top of the web page to search for a location.  Regardless, get as close to the area of interest as possible before proceeding with the next step.



3. Click on the "Download Data" button near the center of the toolbar just above the map and choose the appropriate option to select the area of interest.  Usually this will be "Click here to draw and download by bounding box."
4. If you choose to select a bounding box, click and drag to select an area of interest.  It is typically best to keep the bounding box as tight as possible around the area of interest.
5. The "USGS Available Data for download" dialog box will appear with a number of options.  Check the boxes for "Elevation DEM Products" and "Orthoimagery" -> Click "Next"

6.  The dialog box will now display the available data for the topics selected.
7.  Check the boxes for any the data with the smallest resolution. The smaller the resolution, the more accurate and finer detail the data has. Be consistent with the file format that you select as well. ArcGird or IMG are good choices but any of the formats should work.
8.  Click on the the bar at the bottom which lists the next topic to expand and choose your information.
9.  Data typically comes in rectangular areas and you may need to download several areas if the location you are interested in is close to the boundaries of several data sets. Be sure to scroll through each list and check all the data with the same resolution and date.
10. Once done selecting the data, click the "Next" button -> This will add your selection to your cart on the left side of the screen -> Click the "Checkout" button below the list of "Selected Items:"
11. Enter your email address in the provided fields -> Click the "Place Order" button.
12. You will recieve at least one email with download links for the data. Sometimes large orders or orders with several different types of information will come in several emails.
13. Download your information to your hard drive and unzip the files to a location short file path. I suggest C:\GIS
14. You are now ready to do something with your information.