

### Obtaining and working with on-line Stream Discharge Data:

1. go to: <http://waterdata.usgs.gov/nwis/>
2. choose “Surface Water” from the NWISWeb Water Data
3. choose Streamflow
4. you can then choose to look at data by state, hydrologic region, site number... I suggest you select the state and also the drainage area. These connections are often slow, so you may need to come back to this during off-peak hours (early mornings are good; late afternoon and early evening is pretty slow).
  - a. Indicate that you are interested in watersheds with drainage areas no more than ~400 square miles. This, of course, depends on the area in which you are interested. Bear in mind that these calculations become more problematic for very large drainages – many more things can factor in to the hydrologic equation, especially if the stream is dammed.
  - b. Output format: Select “brief descriptions”. You can use this information to find a watershed with sufficient streamflow data (remember, you want a water year for which you also have precipitation data).
  - c. This will give you a brief description of all the watersheds that match your search criteria (state and size). It includes the drainage area and the years for which there are data (period of record). Write down this information along with the site number (should be an ~8-digit number before the name of the station, e.g. 17050123).
5. Once you know the site number, you can enter it on the page in the previous step (look at data by site number, not state), or just check the box next to the site number and hit “return”. Check out the various types of data available for the site – you can often get a map showing the locations of the station.
6. You want the data in a form that you can manipulate, so on the “Surface-water: Daily streamflow” page choose “Tab-separated data”, not graphs of data, and save the data to a file. You can then open this file in Excel and work with the data.
7. open your text file in Excel:
  - a. choose “Delimited” option and begin importing at row 1; click Next. Choose tab delimited; click Next. Choose “general” format; click Finish.
  - b. You now have the daily discharge measurements for your watershed for a specific water year.
8. Make a graph of the discharge which occurred during the year of your study. To do this, copy and paste the data for the water year in which you are interested (Oct-Sept) into a separate worksheet (or file). You may want to copy your precipitation data into the same worksheet if you want to plot these two data sets together.