### ****Analysis of Rainfall Measurements during Storm Matthew****

1. Turn on the layer that shows the 13 rain gauges within the watershed.
2. Click on each rain gauge and download the rainfall observations recorded by the gauge during the storm. Or [download](http://hydroviz.cilat.org/hydro/fulldata.xls) a spreadsheet with the full dataset for the 13 gauges.
3. Produce a plot showing date/time on the x-axis and the rainfall values on the y-axis during the heaviest period of the storm (10/10/2004 hour 0:00 to 10/10/2004 hour 9:00 am). Each gauge should be represented by a separate line. Embellish your plot using proper axes titles, units, legend, etc. [Click here for a sample of what your plot should look like](http://hydroviz.cilat.org/rainfall.jpg). Copy and paste your plot into your word document.
4. Comment on the results that you see in the rainfall plot and table. How different/similar are the observations of the different gauges? What does that tell you about the rainfall variability during the storm?
5. For each gauge calculate the total rainfall depth over the storm duration. You can do this by simply adding all the 15-minute rain values over the duration of the storm. Summarize you data in a table.
6. Revisit the rainfall maps shown at the [Hydro-meteorological Prediction Center](http://www.hpc.ncep.noaa.gov/tropical/rain/2004.html). From these maps, try to find the watershed location and to the best of your ability estimate how much rainfall was observed over our watershed. Include these numbers in the same table.
7. How different the total rainfall based on our gauges versus what you see on the [Hydro-meteorological Prediction Center](http://www.hpc.ncep.noaa.gov/tropical/rain/2004.html)?