Homework #3

1. Add your calculated flows to the data in the table below, and using these data develop a stage:discharge relationship (also called a "Rating Curve") for the Mill River at the UMass WET facility (i.e., where you made your velocity measurements on 9/27).

2. Using the stage data in the excel file I sent you, calculate the flow during the entire period of record (i.e., April 28 to September 28).

3. Download the Northampton mill river flow data (USGS 01171500 MILL RIVER AT NORTHAMPTON, MA) for the same period (April 28 to present).

4. Graph the flow data #2 versus time and compare this to the Northampton mill river data (#3) by graphing this over the same time period. Note that the

5. Comment on how these two compare, and why they are similar or not. Note that the contributing drainage area is greater for the Northampton Mill River (52.6 mi^2) than the Amherst-Hadley Mill River (30 mi^2).

Flow Measurements on the Mill River at the UMass WET Facility

Date	Time	Rep-licate	Staff gage (m)	Discharge (m3/s)	Transducer Water Level (cm)
5/10/2017	11:21	1	1.915	1.125	46.2
5/10/2017	11:21	2	1.915	1.146	46.2
8/3/2017	16:11	1	NR	0.184	15.44
8/3/2017	16:51	2	NR	0.203	15.43
8/30/2017	12:56	1	NR	0.159	13.21
9/19/2017	10:49	1	0.86	0.179	17.72
9/19/2017	11:19	2	0.86	0.176	17.72

Assigned: 2 Oct 17
Due: 10 Oct 17