

**Day in the Life of the Hudson River 10/10/13 Data
Above the Troy Dam
RIVER MILE 200
Hudson Crossing Park, Lock 5, Schuylerville , Hudson River**



Where EPA is doing their dredging

**Nancy Robertson, Cornell Cooperative Extension, 4H
Homeschool Group, 7 students K2-7th and 4 adults
43°00.044' N & 73°51.078'W**



Location: Kayak launch, Hudson Crossing Park, Lock 5 in Schuylerville, Saratoga Co.
Area: Old industrial site now used for recreation – waterfalls, boating, fishing
Surrounding Land Use: urban/residential several houses on the site; 85% forested; 1% beach, Industrial/Commercial dredging downriver, lots of barge activity
Sampling Site: Small beach area, pier and lock, construction gravel in the area and covered in vegetation
Plants in water: yes - <5% has water celery
Plants in area: oak, sumac, honeysuckle
Water Bottom: sandy, muddy, bedrock nearby
Water depth: 3-5 ft.

<i>ITEM</i>	<i>Time</i>	<i>Reading 1</i>	<i>Reading 2</i>	<i>Comments</i>
Physical				
Air Temperature	11:45 AM	17.2 °C 63 °F	<i>Noted water is warmer than the air</i>	
Wind Speed		Beaufort #1		
Cloud Cover	Partly cloudy to mostly cloudy			
Weather today	No rain today			
Weather past few days	Heavy rain on Monday, temps. In the 60-70°s range Tues & Weds			
Water Temperature	11:00 AM	17°C 62 °F		
Water surface	Water calm			
Turbidity - secchi	12:00 PM	.75 meter		
Chlorophyll	11:00 AM	0.5		
Chemical				
pH – color drop kit	11:15 AM	7.4 7.4		Average 7.4
Salinity – quantabs	10:30 AM	.06*	*below conversion scale	
Dissolved Oxygen – digital titration	11:15 AM	8.66 ppm 9.38 ppm	17° C	80% saturation
Flow	Secs/1524 cm	Cm/sec	Knots	North/South
We measured a stick traveling a 50 ft. run in the water. This year we sampled below the bridge we have used in the past. The river is “crowned” here – very shallow and fast in the middle. We measured the current in the deep channels to either side. There were waterfalls above and bridge abutments just north of the site.				
50 foot run – convert-1524 cm/avg. time recorded to get avg. cm/sec	28 sec 27 sec 26 sec	56.4 cm/sec	1.1 kts	South
Core	Length	Abundant	Common	Rare
11:30 AM – 2-3 ft. deep water – at small beach – water celery nearby	12 cm – oxidized top – 2-3 cm	mud	Freshwater mussels in a mound (perhaps something’s feeding spot)	Clay Sand Gravel
Shipping	All day Tugs and Barges	Heading both ways	Part of the dredging operation	Moving river sediment & sand
Other Items	Blue heron, Vs of geese (~30) , pileated woodpecker’s head			