

**Snapshot Day 10/20/16Data
(Salt Front ~RM 83)
RIVER MILE 51.5**

Garrison Landing Park

Cathy Bakker, Hudson Highlands Land Trust

Karen Nelson, Kevin Keegan, Lisa M, Nicole, Chris Caliendo, Garrison Union Free School

7th & 8th graders 22 students, 5 adults

41 22 57 N – 73 36 93 W

Location: Garrison Landing Park, Garrison, Putnam County, NY

Area: Waterfront beach area on front of grassy park primarily used for boating & picnics

Surrounding Land Use: Forested 60%, Urban/residential 20%, Industrial/commercial 10%, Forested 5%, Other 10%,

Sampling Site: Rocky shoreline, Pier, shore with bulkhead, riprap, grassy, parking lot

Shoreline: Sandy, muddy, rocky

Plants in area: 50% trees, 10% bushes, 30% grasses and 10% other plants

Water depth: 3 – 30 cms

River Bottom – muddy/rocky bottom

Plants in the water – none in water,

<i>ITEM</i>	<i>Time</i>	<i>Reading 1</i>		<i>Comments</i>
<i>Physical</i>				
Air Temperature	10:18 AM	68 °F	19 °C	
	11:35 AM	72	22°C	
	12:50 PM	79	26°C	
Wind Speed	Beaufort #	Knots	Mph	Direction
10:18 AM	#1	1-3		North-West
11:35 AM	#1	1-3		
12:50 PM	#4	11-16		
Cloud Cover	10:18 AM	Mostly cloudy	51-75%	
	11:35 AM	Overcast	75-100%	
	12:50 PM	Mostly Cloudy	51-75%	
Weather today	Overcast except at 11:35 AM when there was rain			
Weather recently	Unusually warm and no rain			
Water Surface	Calm, small waves – early in day brownish water			
Water Temperature	9:50 AM	18.8°C	61° F	
	10:53 AM	16°C	67	
	12:58 PM	19°C	68	
Turbidity -	10:38 AM	45 cm		
	11:30 AM	56.7		
	12:58 PM	76.5		
<i>Chemical</i>				

DO -colormetric analysis	10:26 AM 10:53 AM 12:30 PM	3 mg/L 3 mg/L 3 mg/L	19°C 16 19	10 % 28 % 31 %
pH – color match test	Time	Reading		Averages
	10:23 AM	< 6.0		
Salinity – quantab – 0.04 ppm? Not sure what this means	10:30 AM			
Phosphates – (expect LaMotte kit)	10:38 AM 11:38 AM 12:54 AM	2 ppm 2ppm 2ppm		
Nitrates (expect LaMotte kit)	9:59 AM 11:38 AM 12:59 PM	0, 1, .5 ppm 0, 1, .5 ppm 0, 1, 4 ppm		Avg 2 ppm Avg 2 ppm Avg 1.7 ppm
Tides - Time	Cm start ht	Stop Time	Cm end	Tide
9:48 AM 11:08 AM 12:25 PM	34 cm 7.62 cm 20.32 cm	10:22 AM 11:30 AM 1:02 PM	29 cm 17.78 cm 30.48 cm	Falling Rising Rising
Currents/Time	Cm/30 secs	Cm/Sec	Knots	Ebb/Flood/ Still
9:48 AM 11:08 AM 12:25 PM		24.5 cm/sec 23.3 cm/sec 28.67 cm/sec	0.48 kts 4.5 kts 1.53 kts	
Seine – 60 ft. X 94.2 ft. pull – ¼ inch mesh	TIME	SPECIES	CATCH	SIZE/CM
Fish Group #1	10:05 AM	White Perch	8	13 cm
		Hog choker	8	13 cm
		Yellow Perch	2	22 cm
		Striped Bass	8	14 cm
		Herring	99	7.5 cm
		American Eel	1	15 cm
		Diversity 6	Totals 126	
Macroinvertebrates		Shrimp	1	
		Blue Crab	5 (4 M,1 F)	
		Diversity 2	Totals 126	
Fish Group #2	11:45 AM	Pumpkinseed	1	14.5 cm
		White Perch	4	9.4 cm
		Striped Bass	2	10 cm
		Herring	1	8.9 cm
		Hog Choker	1	8.7 cm
		Diversity 5	Totals 9	
Fish Group #3	1:05 PM	Striped Bass	2	9 cm

		Diversity 1	Totals 2	
<i>Traffic – Commerical</i>				
9:53 AM	River Rose		Northbound	Light
12:15 PM	West Point Ferry		Northbound	Light
12:45 PM	West Point Ferry		Northbound	Light
<i>Recreational</i>				
9:55 AM			Southbound	Light
<i>Sediment Core – 11:38 AM</i>	<i>No length provided</i>	Abundant – Sand	Common Mud	Rare Wood Vegetation H2S smell
<i>12:59 PM</i>	<i>No length provided</i>		Clay Mud H2S Smell	