

Day in the Life of the Hudson River 10/14/21
MACHEACHRON WATERFRONT PARK- KINALLY COVE, HASTINGS

RIVER MILE: 22

Salt Front: ~ RM 49

Hastings High School- Melissa Shandroff and 3 teachers

72 students, 11-12th grade science

Latitude 40.99776 N & Longitude – 73.88523 W

Location: MachEachron Waterfront Park, Kinnally Cove, Hastings-on-Hudson, Westchester County, NY

Area: Beach area with riprap shoreline, next to the park= used both spaces. Beach is totally covered during high tide

Surrounding Land Use: 50% Industrial/Commercial (next to old Anaconda site) but mainly parking lot now; 25% Beach; 15% Forested; 10% Grassy

Sampling Site: Beach, banks altered, riprap on shoreline, bulkhead

Shoreline:

River Bottom: Sandy, rocky

<i>ITEM</i>	<i>Time</i>	<i>Reading</i>		<i>Comments</i>	
Physical					
<i>Air Temperature</i>	9:30 AM	19 °C	66.2 ° F		
	1:30 PM	24.5 °C	76.1 ° F		
<i>Wind Speed:</i>	9:30 AM	3.5 knots	4.03 mph		
	1:30 PM	5 knots	5.75 mph		
<i>Weather today</i>	All day – partly cloudy				
<i>Weather the past 3 days:</i>					
<i>Tides-</i>	<i>Time</i>	<i>Rising, Falling, Unchanged</i>	<i>Height (cm)</i>		
<i>Current-</i>	<i>Time</i>	<i>Cm/sec</i>	<i>Knots</i>	<i>North/South</i>	<i>Ebb/Flood/Still</i>
	9:30 AM	44.24	0.86	South	Ebb
	1:30 PM	25.72	0.5	North	Flood
<i>Water Temperature-</i>	9:30 AM	19 °C	66.2 ° F		
	1:30 PM	20 °C	68 ° F		
<i>Turbidity- Long sight tube</i>	9:30 AM	9.8 cm	*This is extremely turbid but several sites in this part of the river were highly turbid		
	1:30 PM	7.7 cm			
Chemical					
<i>Salinity-</i>		<i>Hydrometer</i>	<i>Refractometer</i>	<i>Quantabs</i>	
	9:30 AM	6 ppt	5 ppt	6.6 ppt	
	1:30 PM	7.5 ppt	7 ppt	6.5 ppt	
<i>DO –</i>	<i>Time</i>	<i>Temp</i>	<i>ppm DO</i>	<i>% saturation</i>	
	9:30 AM	19 °C	7 ppm	70%	
	1:30 PM	20 °C	8 ppm	88%	
<i>pH – LaMotte Kit</i>	9:30 AM	7			
	1:30 PM	7			
<i>Nitrates- LaMotte Kit</i>	9:30 AM	1.5 ppm			
	1:30 PM	4.5 ppm		*high reading	
<i>Phosphates- LaMotte Kit</i>	9:30 AM	1.0 ppm			
	1:30 PM	1.0 ppm			
Biological					
<i>Fish</i>	<i>Number</i>	<i>Name</i>	<i>Length of longest</i>	<i>Length of smallest</i>	
	10	Banded Killifish	6 cm	5 cm	
	30	Atlantic Silverside	9 cm	4.5 cm	
	3	White Perch	16 cm	6.5 cm	
	1	Striped Bass	21 cm	-	

	1	Northern Kingfish	16 cm	-
Fish Totals	TOTAL: 45	Diversity: 5		