**Day in the Life of the Hudson River 10/20/16 Data**

**(Saltfront ~ RM 83)**

**(Above the Troy Dam and the Head of Tide)**

**RIVER MILE 154**

**Peebles Island State Park, Waterford, NY**

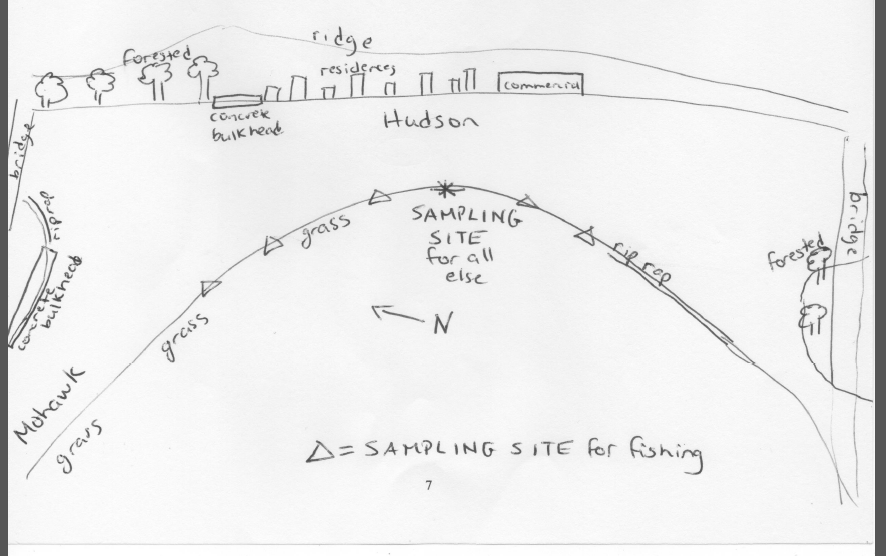
**Becky Zimmerman**, **Angela Jones and Raquel Santiago-Parker**

**Pine Hills Elementary School**

**64 students – 4th grade, 11 adults total**

**42°47.051’N and 73°40.706 W**



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**Location:** Pavilion at Pebbles Island Park at the confluence of the Hudson River and the Mohawk River, Waterford, NY

**Area:** Park just north of the Troy dam at the pavilion, grassy embankment, rip rap – sampled by the pavilion area

**Surrounding Land Use:** 75% grassy, 25% riprap

**Sampling Site:** Park area

**Shoreline:** riprap

**Plants in area:** none

**Water depth**: 12 - 36 inches

**River Bottom description**: muddy

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | ***Time*** | | ***Reading 1*** | ***Reading 2*** | ***Comments*** |
| ***Physical*** |  | |  |  |  |
| Air Temperature | 10:27 AM  12:50 PM | | 60°F  58°F | 15.6°C  14.4°C |  |
| Wind Speed | 10:27 AM  11:16 AM  11:54 AM  12:50 PM | | Beaufort 1  Beaufort 1  Beaufort 2  Beaufort 3 | Anenometer kts. | 0.9 m/s  1.6 m/s  3.0 m/s  3.6 m/s |
| Cloud Cover | Started as mostly cloudy | | Then became overcast | Then began to rain steadily |  |
| Weather today | Steady rain | | | | |
| Weather recently | No rain, warm | | | | |
| ***Water surface*** | Calm |  | |  |  |
| ***Water Temperature*** | 10:27 AM  11:16 AM  11:54 PM  12:50 PM | 16°C  16  16  16 | | 60°F  60  60  60 |  |
| ***Turbidity –***  ***long site tube***  averages & standard deviation | 10:27 AM -  12:50 PM | Completely clear – no reading possible | |  |  |
| ***Chemical*** | ***Time*** | ***Water Temp*** | | ***ppm*** | ***saturation*** |
| DO - Lamotte Earth Force Low test water monitoring kit | 10:27 AM – 12:50 PM | 16 C | | 2.7 ppm | 26 % sat. |
| pH – indicator solution | 12:27 PM | 7  7  8.8 | |  | Average 7.5 |
| ***Fish Catch – 10 ft. net*** | ***Number*** | ***Species*** | | ***Size largest*** |  |
| 10ft - 1 cm mesh- 10m pull | 75 | Banded killifish | | 96 mm |  |
| 10:27 AM -12:50 PM | 122 | Spottail shiner | | 62 mm |  |
|  | 5 | Darter | | 45 mm |  |
|  | **DIV 3** | **TOTAL** | | **202** |  |
| ***Water Level*** | **Time** | **Height** | | **Change** | **Change Rate** |
| *This is above the head of tide. Water level changes have to do with releases that occur from hydro plant that empties into the river below Cohoes Falls.* | 10:27AM | 22.5 cm | |  |  |
| 11:16 AM | 20 cm | | Falling | 0.05 cm/min |
| 11:54 AM | 15 cm | | Falling | 0.13 cm/min |
| 1250 PM | 13.8 cm | | Falling | -0.02 cm/min |
| ***Water Flow Velocity*** | **Time** | **Rate of flow** | | **All flow is South** |  |
| *This is not a tidal current just flow. At the confluence of two waterways the water direction can change.* | 10:27 AM | 10.2 cm/sec | |  |  |
| 11:16 AM | 1.6 cm/sec | |  |  |
| 11:54 AM | 3.4 cm/sec | |  |  |
| 12:50 PM | 4.2 cm/sec | |  |  |
| ***Boat Traffic*** | 1:09 PM | BARGE | | North | Empty (C) |
|  | 10:37 AM |  | | South | Recreational |
| ***Other*** | hawks | Seagulls | | Sandpiper | ducks |