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

**(Salt Front Estimated ~ RM 83)**

**RIVER MILE 38**

**Haverstraw Bay County Park, Haverstraw Waterfront**

**Beth Michaluk –21 students, 11th & 12th graders in RCC course on Environmental Pollution, 3 adults**

**Location:** North beach, dock and walking pier, Haverstraw Bay Park, Haverstraw waterfront, Rockland County NY

**Area:** Parking lot, recreation, fishing

**Surrounding Land Use**: 20% parkland, 40% Industrial/commercial, 30% urban/residential

**Sampling Site:** small beach, bank altered, large rip rap, bulkhead, concrete bulkhead, covered in vegetation

**Water depth**: 5 to 18 inches

**River Bottom** – muddy and rocky

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| ***ITEM*** | ***Time*** | | ***Reading 1*** | ***Reading 2*** | | ***Comments*** |
| ***Physical*** |  | |  |  | |  |
| Air Temperature | 9:58 AM  11:17 AM  12:39 PM | | 21°C  20  21 | 66°F  63  70 | |  |
| Wind Speed | 10:10 AM  11:20 AM  12:30 AM | | 2 kts  1.8 kts  6.4 kts | Anenometer Avg 3.4 kts  N then S | | Beaufort 1-3 |
| Cloud Cover | Partly Cloudy early | | Mostly cloudy later |  | |  |
| Weather today | Overcast | | No rain |  | |  |
| Weather last 3 days | Very warm, no rain | | | | | |
| ***Water*** | Calm & choppy during the day | | | |  |  |
| ***Water Temp. avg. depth 2.5 ft*** | 9:58 AM  11:15 AM  12:40 PM | | 18.9°C  19.2  21 | | 66°F  66.6  69 |  |
| ***Turbidity – Long site tube*** | 9:30 AM  10:30 AM  11:30 AM | | 27cm  35 cm  43 cm | |  |  |
| ***Chemical*** |  | |  | |  |  |
| DO  *Drop count* | 10:20 AM  11:30 AM  12:45 PM | | 19°C  18.9  20.5 | | 11 ppm  14 ppm  13 ppm | 115 % sat.  150 %  145% sat. |
| pH | **Time** | | **Test Strips\*** | | **Color Match Test Kit** | **Note\*** |
|  | 9:50 AM  11:00 AM  12:30 PM | | 5.5  5  5 | | 7.2  7.5  7.5 | Test strips reading too low |
| Salinity:  *Quantabs HR (read 8)* | 9:40 AM  11:00 AM  12:45 PM | 0.744 %NaCl | | | 4511 ppm Cl-4511 ppm Cl-  4511 ppm Cl- | 8149 ppm TS  8149 ppm Cl-  8149 ppm Cl- |
| *Hydrometer* | 9:40 AM  11:00 AM  12:45 PM | | 9.5 ppt  8.5 ppt  10.0 ppt | |  | ***Avergae 9.4 ppt*** |
| ***Turbidity - secchi*** | 9:50 AM  11:00 AM  12:36 PM | | 80,70,60 cm  80, 100, 80  110,120,160 | | **Avg. 70 cm**  **Avg. 87 cm**  **Avg. 130cm** | Water very turbid, wavy, moving rapidly at times |
| ***Turbidity – long sight tube*** | 9:50 AM  11:00 AM  12:36 PM | | 95,77,87 cm  73, 73, 69  48,50, | | **Avg. 86 cm**  **Avg. 72 cm**  **Avg. 49 cm** |
| ***Tides*** | 9:46 AM  10:04 AM  11:20 AM  12:27 AM | | 10 cm  12cm  20cm  40cm | |  | Rising – flood tide |
| ***Currents*** | ***CM/30 secs*** | | **Cm/Sec** | | **North/South Ebb/Flood/** | **Knots** |
| 9:56 AM  11:11 AM  12:36 PM | 106 cm/30s  792.5 cm/30s  548.6 cm/30s | | 3.5 cm/sec  26.4 cm/sec  18.3 cm/sec | | Flood  Flood  Flood | .06 kts  .51 kts  .35 kts |
| ***Core –*** | **Properties** | | **Rare** | | **Common** | **Abundant** |
| ***10 cm long*** | No smell, oil or oxidation | | brick | | pebbles | Clay  Mud  Sand  Gravel |
| ***Shipping – Commercial*** |  | |  | |  |  |
| ***12:52PM*** | Barge | | Grey/Blue | | Northbound | Loaded |
| ***Shipping Recreational*** |  | |  | |  |  |
| ***9:10PAM***  ***11:40AM***  ***12:48 PM*** | Cruiser  Speedboat  Small Boat | | Blue  White  White | | Northbound  Northbound  Southbound | Light  Light  Light |
| ***Observations*** | Many bricks, coal, crab shells, rock and sand in the area. Old industry of brickyards, coal transport and use, industry pollution. Also saw birds, chipmunks, bees, butterflies and flies | | | | | |