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

**(Saltfront ~ RM 83)**

**RIVER MILE -5**

**Bayridge American Veterans’ Memorial Pier**

**N 40. 38’22.-416 , W-74 .2’18.4308**

**Alicia Smith & International School of Brooklyn**

**30 Fifth graders, 4 adults**

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**View from the pier. Owl Sewage treatment plant visible in the foreground.**

**Location:** Pier American Veterans’ Memorial Pier, by highway, Park, 2 water treatment plants

**Area:** Pier – bulkhead – mainly concrete & wood. Two parks – Owl’s head and Shore Road Park. Water treatment plant <0.5 miles to the NE

**Surrounding Land Use:** 85% urban/residential, 5% Industrial Commercial, 5% park, 5% highway

**Sampling Site:** Recreational pier with bulkhead– rocks near the edge, banks altered /riprap, all hard edged, steep wall dividing water from land, pipe entering water from treatment plant

**Shoreline:** Rocky

**Depth:** ~ 20 ft.

**Plants in area:** No plants

**Bottom:** could not see to tell

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| ***ITEM*** | ***Time*** | ***Readings*** |  |  |
| ***Physical*** |   |  |  |  |
| Air Temperature | 12:00 PM12:45 PM | 24.5°C23 °C | 76.1°F73.4°F |  |
| Wind Speed | 11:21 AM | Beaufort 3  | 9 kts | W |
| Cloud Cover | 12:00-12:45 PM  | Mostly cloudy  | 51-75%  | cloud cover all day |
| Weather today | Overcast -> partly cloudy -> overcast |  | ***Water surface*** | choppy |
| Weather recently | Unusually warm temperatures, sunny skies, humid  |
| ***Water Temperatures & averages*** | 11:40 AM12:07 PM12:30 PM | 19, 19, 19°C20, 19°C20, 19°C  | 66.2 X 3 °F68, 66.2 °F68, 66.2 °F | **19C/66.2F****19.5C/67.1F****19.5C/67.1F** |
| ***Turbidity*** | 12:10 PM  | 96.6 cm119.2 cm120 cm |  | Avg. 111.9 cm |
| ***Chemical*** | **Time**  | **ppm** | **Temp** | **% Sat** |
| DO Drop count kit  | 12:18 PM | 6.4 | 23°C | 74% |
| pHmeter | 11:45 PM12:15 PM12:30 PM | 7.707.717.77 |  | Avg. 7.71 |
| Salinity -hydrometer | 11:45 PM12:15 PM12:30 PM | 28 ppt28 ppt28 ppt |  | 28 ppt |
| ***Fish Catch*** | Time | Species | # caught | Size |
|  |  |  |  |  |
| ***\*Tides - water depth***  | ***Time*** | ***\*Distance to water***  | ***\*Rate of change*** | ***\*Flood or Ebb***  |
| ***Measuring down from pier using a secchi disk*** | 12:00 PM12:24 PM12:40 PM | 150 cm200 cm -fall150 cm - rise | N/A-50 cm+50 cm | -2.08 cm/m+2.08 cm/m |
| \*For the short period of time it seems as if the 12:24 PM measurement might have been a ‘swell’ of water moving through the area not a tidal change. We would expect to see a ‘still’ or ‘slack’ period of some sort between tidal changes and matching tides to currents we do see that there is a slack period during this timeframe.  |
| ***Currents******Time*** | ***Cm/30 sec*** | ***Cm/sec*** | ***Kts*** | ***Ebb/Flood N/S*** |
| 12:00 PM | 304.8 | 10.16  | 1.1977kts  | NE - flood |
| 12:45 PM | 251.46 | 8.38 | 0.1631kts  | W - slack |
| ***Comment noted on the recording sheet:*** Data was collected from a pier that jets out into the upper NY bay. As tides change, there is a swirl in the bay. The tide data shows that the tides was shifting between 12:00 PM and 1:00 PM which supports a more swirling current. |
| ***Shipping Traffic- Commercial***  | 12:00-12:20 PM | ~ 30 ships  | Almost all commercial  | 1 sailboat  |
|  | 12:20-12:45 PM | ~ 25 ships  | Almost all commercial  | 1 sailboat  |
| ***Observations***  | Observed large flock of birds near the treatment plant floating in water about ½ mile from test site.  |