**Snapshot Day 10/20/16 Data**

**(Salt Front ~RM 83)**

**RIVER MILE 32**

**Lewis & Engel Park**

**Bridget Baumann & Artie Carlucci, Ossining HS AP Environmental Science**

**10th-12th grade – 12 students, 1 adults**

**41°10’N - 73°52’W**

**
Location:** Wading beach at Lewis J. Engel Park, Ossining, NY

**Area:** Beachfront area with a ferry pier,paved sidewalk, rock wall lining the river, riprap, grass by metro north station

**Surrounding Land Use:** 50% beach, 15% park, 25% industrial/commercial

**Sampling Site:** bulkhead lines the shoreline with pier, rock wall, beach, riprap, rocky, weedy, used for picnics and boats. Pipe enters the river North of the sample site.

**Plants in the water:** 10% water chestnut; 90% water celery

**Shoreline:** 50% Rocky, 50% Sandy

**River Bottom**: sandy and muddy with small rocks

**Plants:** Water chestnut, water celery, \*water milfoil (\*listed as hornwart on recording sheet)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| ***ITEM*** | ***Time*** | ***Reading 1*** | ***Reading 2*** | ***Comments*** |
| ***Physical*** |   |  |  |  |
| Air Temperature | 12:00 PM2:00 PM  | 69°F68°F | 20.6°C20°C |  |
| Wind Speed | 9:00 AM |  Beaufort #3 | NW  | 8mph |
| Cloud Cover | 12:00 PM | 51%-95% | Mostly cloudy |  |
| Weather today | No Rain  |
| Weather last 3 days | Unusually warm |
| Water | Small wavelets |
| ***Water Temperature*** |  9:30 AM11:30 AM12:00 PM | 18 ° C18 ° C20 ° C | 64° F64° F68° F |  |
| ***Turbidity- long site tube***  | 9:45 AM | <10 cm>10 cm>10 cm  |  |  |
| Turbidity Comment: Water was very turbid. The water was clear when observed from outside the tube, but was not very directly examined. Light did not penetrate far, showing the water’s ability to block sunlight.  |
| ***Chemical*** |  |  |  |  |
| DO – LaMotte Green Water test kit | 11:04 AM11:30 AM12:00 PM | 2.0 mg/L3.0 mg/L4.0 mg/L | 18 ° C20 ° C20 ° C | 20% saturated33% saturated43% saturated |
| pH (test strips – color match)  | 9:50 AM10:23 AM10:45 AM11:25 AM | 6.07.08.07.0 |  |  |
| Salinity- plastic hydrometer(\**recorded as ppm but should be ppt*) | 11:00 AM11:30 AM1:20 PM | 14 ppt12 ppt13 ppt |  | Average 13 ppt |
| Nitrogen | 11:04 AM | 15 ppm | 15 ppm |  |
| Phosphorous | 11:14 AM | 2 ppm | 2 ppm |  |
| ***Fish Catch******15 ft. seine*** | ***Number Caught*** | ***Species*** | ***Length of largest*** |  |
| 9:30 AM | 12 | Atlantic Silversides | 10 cm | ***Diversity - 6*** |
|  | 7 | Striped Bass | 9 cm | ***Total Count -24*** |
|  | 1 | White Perch | 19 cm |  |
|  | 1 | Blue Fish | 14.5 cm |  |
|  | 2 | Naked Goby | 2 cm |  |
|  | 1 | Pipe fish | 17 cm |  |
| ***Macros***  | 6 | Blue Crab | 3male/3 F | ***Macro Div- 3*** |
|  | 15 + | Asian Crab |  | ***Total Count – 24+*** |
|  | 3 | Mitten crab |  |  |
| ***Tides*** | 9:30 AM2:00 PM | Set stick330 cm | 4.4 hrs. = 270 minutes  | Average 1.22 cm/min |
| ***Currents***  | NR |  |  |  |
| ***Shipping - Commercial*** | 9:00 AM9:30 AM 1:00 PM | Haverstraw FerrySeining Boat for Indian Pt.Freighter | WhiteGrey Blue/White | E&W /LoadedS/ LoadedNorth/Loaded |
| ***Shipping – Recreational*** | 9:30 AM  | Fishing Boat | White  | N&S Light |
| ***Core Description*** | ***Length*** | ***Abundant*** | ***Common*** | ***Rare*** |
| Collected in 1 meter of water @11:00 AM | Not listed \*no H2S \*no O2 top | MudSandPebbles | GravelLeaves | WoodFreshwater MusselsBrickSlagLiving Vegetation |
| ***Observations*** | Along the beach there are scattered pieces of brick on the ground as well as a few water chestnut seeds and crab shells.  |
|  | Also saw butterflies, various birds (pigeon) and dogs |