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

**(Salt Front ~ RM 83)**

**RIVER MILE 60.2**

**Newburgh Yatch Club, Newburgh, Orange County NY**

**Jennifer Reid, GAMS Newburgh Enlarged School District**

**5th graders (97 students and 10 adults)**

**Latitude 41.5, Longitude -74**

**Location:** Newburgh Yatch Club, Newburgh, Orange County NY

**Area:** Pier, dock with bulk heads, rip rap and wood bulkhead

**Surrounding Land Use**: Urban/residential 100%

**Shoreline:** Rocky

**Sampling Site**: beach, covered in vegetation, banks altered, rip rap

**Plants in the** **water:** 80% water chestnut and 20% water celery

**Water depth**: <1 m

**Bottom Surface**: muddy

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| *ITEM* | *Time* | *Reading 1* | *Reading* | | *Comments* | | |
| *Physical* |  |  |  | |  | | |
| Air Temperature | 9:00 AM  12:00 PM  2:00 PM | 17°C  20  19 | 62°F  68  66 | |  | | |
| Wind Speed | Beaufort | #4 | 4.1 mph | | N | | |
| Cloud Cover | 9:00 AM | Partly cloudy | 26-50% | | Noon – mostly cloudy 51-75% | | |
| Weather today | No rain | | | | | | |
| Weather recently | Hot and dry 80s | | | | | | |
| *Water Surface* | Choppy & calm at different times | |  | | | | |
| *Water Temperature* | Time | Degrees °C | |  | |  | | |
|  | 9:17 AM  10:42 AM  1:48 PM | 18°C  17  22 | | 64°F  63  72 | |  | | |
| *Turbidity- long sight tube* | 8:27 AM  9:32 AM  11:28 AM | 51 cm  69  48 | |  | |  | | |
| *Chemical* | *Time* | *DO* | | *Temp* | | *% saturation* | | |
| DO  (drop kit) | 9:17 AM  11:09 AM  1:48 PM | 12 ppm  12  14 | | 18°C  17  22 | | 140%  140%  140 + % | | |
| pH –  litmus paper | 9:17 AM  11:00 am  12:00 PM  1:48 PM | *7.8*  *7.2*  *7.7*  *7.9* | |  | | Average 7.65 | | |
| *Nitrates* | 11:30 AM | 20 ppm X 3 | | ?? | |  | | |
| *Salinity –QTs- Time* | *Time* | *Chloride reading* | |  | | *Total Salinity conversion* | | |
|  | 9:48 AM HR Quantabs | 759 ppm | |  | | 1372 ppm TS | | |
| *Fish Catch*  *seine 8X4feet* | *Number Caught* | *Species* | | *Length* | | ***Fish******DIV 4***  ***TOTAL 10*** | | |
| 4X6 ft. pull | 4 | \*Northern Kingfish | | 5 cm | | \*probably mis ID | | |
|  | 1 | Yellow Perch | |  | |  | | |
|  | 3 | Banded Killi | |  | |  | | |
|  | 2 | Darter | |  | |  | | |
| ***Sediment Core*** | ***Description*** | ***Rare*** | | ***Common*** | | ***Abundant*** | | |
|  | H2O smell | Shells  Zebra mussel  Macroinverts  Some water celery | | Leaves  Wood | | Clay  Mud | | |
| *Tides* | *Time* | *Tide Stick* | | *Flood/Ebb Still* | | *Rate of change* | | |
|  | NR |  | |  | |  | | |
| *Currents* | *Time* | *Cm/30 secs* | | *Cm/sec* | | *knots* | *Ebb Flood* | |
|  | 9:30 AM  10:00 AM  1:00 PM  1:30 PM | 1371 cm  944 cm  160 cm  251 cm | | 45.7 cm/sec  31.5 cm/sec  5.33 cm/sec  8.37 cm/sec | |  |  | |
| Commercial Shipping | 2:15 PM  2:15 PM | CHART  UBC | | Beige  Red | | North  south | loaded | |
| Recreational Shipping | 12:00 noon |  | |  | | South | light | |
| Other Observations | Water chestnut seeds all over the docks | | | | | | | |