The water ecology team started two years ago in 2016. Three of the current members are still participating this year. We meet once or twice a month on Fridays. Our classes last from 9 AM to 3 PM and consist of us going out to sites on the map and testing water.

Above is our coach, Justin Demeter. He is a cool dude.

These are the places we go sampling at. We don’t always go to all the sites, but we go to as many as we can in the time allotted.

Water Ecology At Its Finest

[Left to Right]
Taylor, Tara, Bella, Valeria, Justin, Clarrissa, Nena, Chandra, Solomon

About Us

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**Mohawk Water Ecology Team**

**Nitrate & Nitrites**
- Essential source of nutrients for plants
- Occurs naturally
  - Caused by fertilizers and cesspool
- Acceptable levels: less than 10 mg N/L
- We've been getting around 10 mg N/L
- Can cause Baby Blue Syndrome
- Results are found through colorimeters after adding different reagents to the water

**Conductivity**
- How well the water transfers electricity
- Calculated as the ratio of the density to the electric field
- Shows how much salinity is in the water
- Can be affected by nitrates, sulfates, chloride, and more
- Acceptable levels: less than 150 μmhos/cm
- We've been getting around 50 μmhos/cm (with a few outliers)

**Turbidity**
- How clear the water is
- Turbidity affects how warm or cool the water is, which affects how much DO is in the water
- If there is too much turbidity in a body of water, it looks murky and can become a Eutrophication Zone which isn't safe for animals to live in or for you to swim in
- Safe levels for turbidity is 20 NTU and under
- We've been getting around 7 NTU
- To test Turbidity, you just put it in a colorimeter

**Phosphorus**
- Is a nutrient for living things
- Naturally occurring in minerals and organic matter
- Necessary for life, but it can cause a Eutrophication zone
- Acceptable levels: < 0.3 mg/l
- We've been getting around 0.3 mg/l
**Dissolved Oxygen**

- Measures the amount of oxygen dissolved in the water.
- DO enables aquatic animals and plants to survive.
- DO enters the water through waterfalls, surface agitation and photosynthesis.
- DO is affected through temperature, pressure, and turbidity.
- Safe DO levels are 10 mg/L or 10ppm and higher.
- DO is tested by adding chemicals and then titrating the solution and multiplying the resulting number by 0.02.

**Ammonia**

- It’s a nutrient for growing things.
- Things that affect ammonia are sewage and runoff.
- If its too low plants don’t grow, but if its too high then things start dying.
- Acceptable levels: .001 - .02 mg/l.
- Results we have been getting are around .001 - .02 mg/l.

**pH**

- pH is the measurement of the hydrogen ion (how acidic water is).
- The pH scale goes from 1-14, with 7 being neutral.
- 1-6 is acidic, while 8-14 is basic.
- We usually find results between 6.5-8.5.
- If its too unbalanced, it can hurt aquatic life or humans.
- To test pH, you use a meter dip.

**Temperature**

- How warm or cold the water is (using Celsius).
- Affects water quality and aquatic life.
- Acceptable ranges are below 18°C.
- Temperature can be affected through turbidity.
- Measured with a thermometer.
- Should be one of the first tests done.