Water Quality Testing

- The Friends of Mill Creek participated in The American Chestnut Land Trust's *Water Quality Blitz* this past April. This map was created using the results for the nitrogen level testing.

- We hope to increase the frequency of testing, the type of testing (turbidity, phosphorus, dissolved oxygen) and number of test sites in coming years to increase the validity and usefulness of our findings

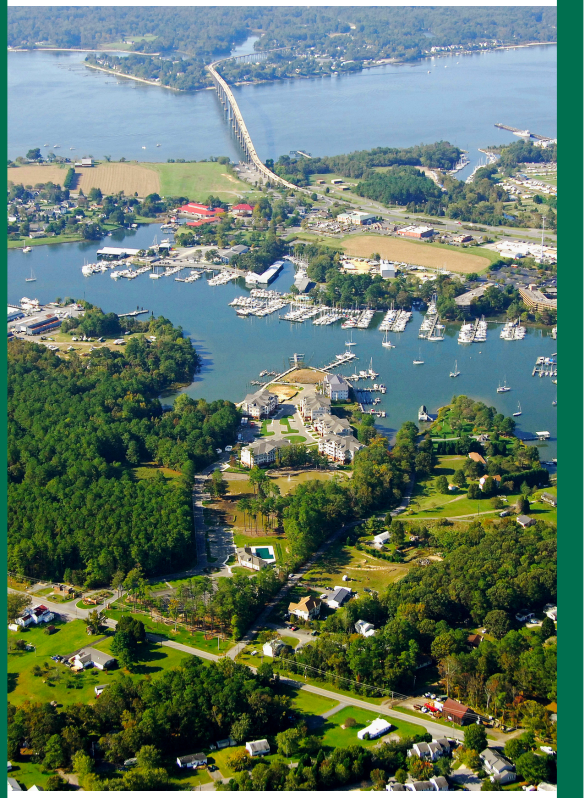
- What do different metrics indicate?
  - **Nitrogen and Phosporus:** Both found in many forms of harmful runoff from sources ranging from transportation, agriculture, indivudual, and industrial waste (fertilizers, pesticides, smoke pollution, exaust, gasolines, oils, cleaning and sanitation products, etc).
  - **Turbidity**: Tests for the clarity of the water. In healthy creeks, the water should be relatively clear with sedimentation primarly at the bottom to allow for sunlight and oxygen. Murky water typically is full of floating particulates and algal blooms that reduce sunlight and oxygen
  - **Dissolved Oxygen:** This is a metric used to show how much oxygen is in the water and accessible to the aquatic life. Without proper oxygen levels, dead zones are created in the creek.

Friends of Mill Creek Watershed Stewardship Group

"We envision a future where current residents and future generations accept personal responsibility to act as individual leaders in the stewardship of our watershed in order to maintain a fishable, swimmable marine ecosystem"

-FOMC vision

CALVERT CREEKS COALITION



Water Quality Update 2022

Friends of Mill Creek

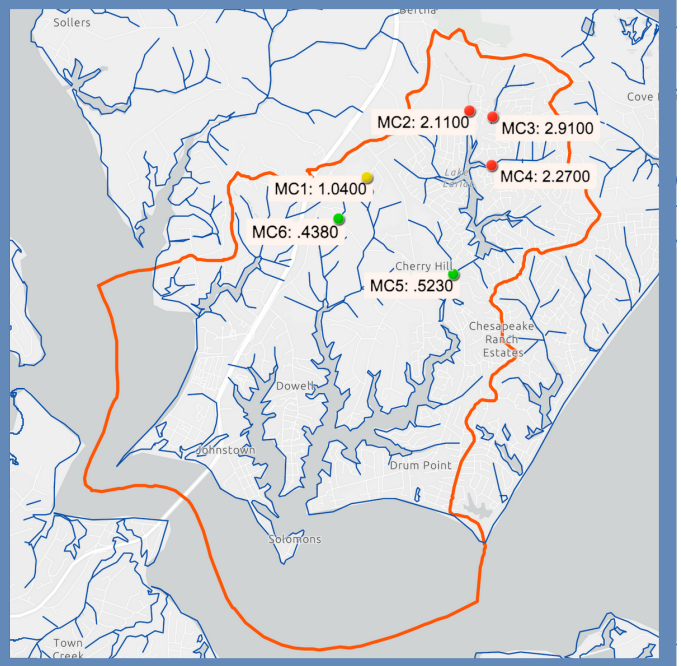
The Results

Nitrate (NO2) and Nitrite (NO3) are two forms of dissolved Nitrogen in bodies of water, often due to runoff from agriculture and other sources of pollution. In a creek like Mill Creek, concentrations below .7 mg/L are considered good. As concentration rise, however, there is an increased risk of environmental harm. Too much nitrogen can stimulate algal blooms, causing dead zones, or areas where fish cannot survive. As you can see on the map, there are three spots in Mill Creek with NO23 levels above the upper threshold of 2.1 mg N/L, and one in the middle range between .7 and 2.1 mg N/L.

Legend

- Below 0.7 mg N/L
- Between 0.7 and 2.1 mg N/L
- Above 2.1 mg N/L
- Waterways

2022 MC Water Quality Blitz Results- NO23



How can you help protect your creek?

AT HOME

- **Reduce fertilizer, herbicide, and pesticide use in your lawn and garden**

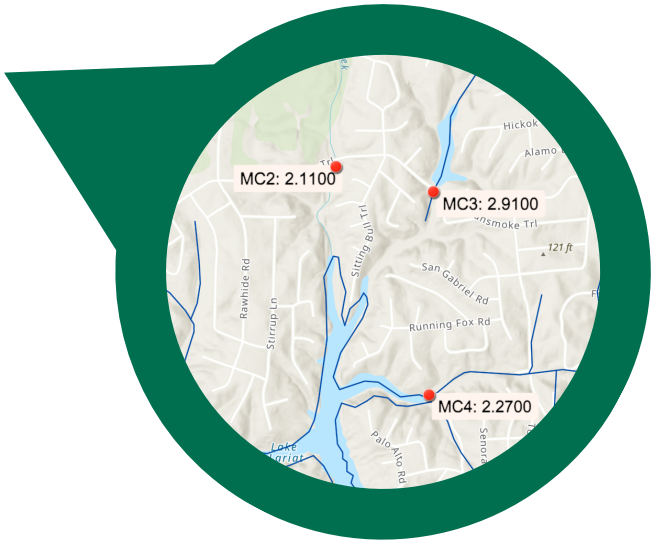
  Many lawn control chemicals can accumulate in the environment through runoff into waterways, raising pollution levels and aiding the creation of deadzones

- **Be mindful of salt use in winter**

  Excess salt is harmful to aquatic ecosystems and animals, hurting many sensitive species like frogs, salamanders, and fish, even creating deadzones

- **Create (or leave) buffers around waterways and shorelines**

  Planting buffer plants helps to reduce runoff, erosion, and if done with native plants, can create habitat and food for local species



IN YOUR COMMUNITY

- Encourage sustainable salting and reduced fertilizer use in community green spaces in your neighborhood, towncenter, or HOA
- Rally for the creation of a community rain garden to reduce runoff into the creek
- Talk to your local representatives about stormwater, runoff, and waste water management issues
- Join a Friends group! Help to raise awareness for local issues, participate in educational events and paddles, and help with citizen science efforts to monitor ecosystem health

Like us on Facebook: @FriendsofMillCreek
To join the Friends mailing list, email: mary@acltweb.org