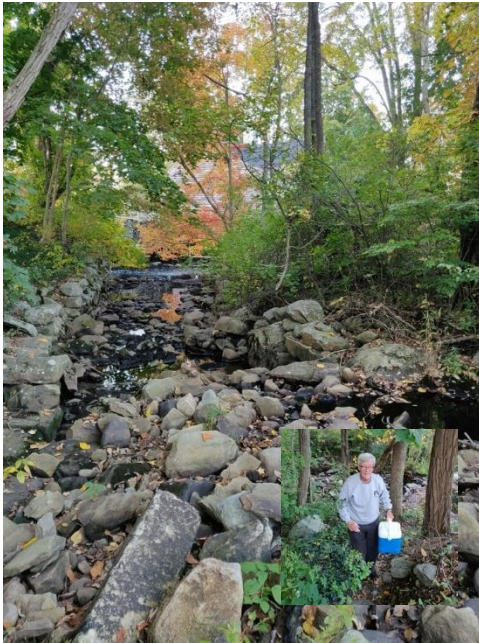




## *Water Quality Monitoring*



The primary water quality problems in the Taunton River Watershed are driven by excess nutrients (nitrogen and phosphorus), droughts, and floods.

To gauge the health of our waterways, a dedicated crew of volunteers performs monthly testing at twenty sites on the Taunton River and tributaries, measuring levels of nitrate, total phosphorus, bacteria (enterococci bacteria), dissolved oxygen, pH and temperature.

Climate change is causing more extreme weather (more severe summer droughts and larger winter/ spring floods along with sea level rise), and rapid development disrupting hydraulic cycles (loss of groundwater recharge and stream base flow) exacerbates our water quality problems.

Working to make the watershed more resilient and improve water quality are the actions by the watershed's municipalities to upgrade treatment to remove nitrogen and phosphorus as well as efforts to implement stormwater management techniques to soak up the rain (preserve and restore predevelopment hydrologic conditions). Better nutrient control will decrease nuisance rooted aquatic plant and algae proliferation, improving aquatic life diversity throughout the watershed. Improved stormwater management will improve the rivers flow regime and reduce pollution (including nutrient loading) from this source as well as mitigate some of the adverse environmental impact of development.

Currently the biggest TRWA monitored problem pollutant in the watershed is excess nitrogen loading by wastewater treatment plants (66% of load) and other sources including stormwater runoff, excess lawn/turf/crop fertilization (and sloppy application of fertilizer i.e., on sidewalks, roads and driveways), pet wastes, stream bank erosion, stream buffer loss, and poor manure management from farming areas (34% of load). Our monitoring indicates that action to remove nitrogen from wastewater treatment plants and to improve stormwater management is very necessary.

# Are You Interested in Becoming a Volunteer?

Trained volunteers sample four locations on the main stem of the Taunton River and 16 tributary locations in the early in the morning the second Tuesday of each month from April to October.

- Teams of 2 or 3 people sample 1 to 3 sites each so each sampler and sampling location has back up(s) for vacations, etc.
- Samples are usually taken from bridge location sidewalks using a rope and plastic bucket. Labeled and filled sample bottles are put in a plastic cooler and transported to the lab for analysis or pick up.
- It takes about 10 minutes at each site to fill lab provided bottles for nitrate, total phosphorus, and enterococci bacteria (our most important samples), as well as a larger bottle for pH, and a special glass bottle for dissolved oxygen. Samplers also measure river temperature with a thermometer. Samplers fill in a chain of custody sheet at each sampling location.



- If samplers see a problem such as algae bloom, they are encouraged to take a picture with their smartphone.
- Nitrate, total phosphorus, and enterococci bacteria are analyzed by a MassDEP certified contract lab (Microbac in Dayville, CT), dissolved oxygen, and pH are analyzed by Veolia North America at the Taunton WWTP lab, water temperature is measured in the field by our samplers.
- Training for volunteers is held the last Saturday morning in March 9:30 AM to Noon.

- We are always looking for new volunteers to increase the size of our teams or backfill for volunteers who have moved away. The folks who do the sampling find it fun and educational to get out on the river to see what is happening in the early morning hours from typically 6:30 to 8:00 AM (sample drop off time is by 8:30 AM).

More information may be found on [TRWA's website](#) top of the page Water Quality Monitoring Tab

**Our Mission:** ...to protect and restore the watershed's natural resources for current and future generations.

**Taunton River Watershed Alliance**, at Sweets Knoll State Park, 1387 Somerset Ave., (Rt. 138), Dighton  
Mailing address: P.O. Box 1116, Taunton, MA 02780 • 508 -828-1101 • [www.savethetaunton.org](http://www.savethetaunton.org)