

## TRWA MONITORING PROGRAM SUMMARY

### BACKGROUND

- Does anyone have memories of when the Taunton, Mill, Three Mile Rivers in the Taunton area; Matfield, and Town Rivers in the Bridgewater/Brockton area; and Quequechan River in Fall River were polluted?
- Much progress has been made - TRWA monitoring is tracking the progress;
- There has been a definite improvement in bacterial levels which is great news for recreation on the river!
- Numbers and diversity of fish species and fish eating birds observed is improving;
- During summer low flow the river is a high percentage of treated municipal effluent but fortunately municipalities are providing good and improving levels of treatment;
- There are algae blooms in the river and estuary during summer months but efforts are underway to reduce nutrient levels (N and P) which will result in improvement;
- Efforts are underway to make the watershed more resilient to drought (water conservation, and stormwater conservation including infiltration to replenish groundwater levels is becoming more common);
- Some forward thinking communities are beginning to implement the new stormwater (a.k.a. MS4) permit requirements even in advance of it becoming effective to reduce pollution, flooding, and hydrologic impacts to streams (e.g. bottom habitat destruction).

### MONITORING PROGRAM

- TRWA for 2019 has 32 trained volunteers (28 regular, and 4 back-ups) who sample 4 locations on the main stem of the Taunton River and 16 tributary locations in the early 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; 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 total suspended solids and pH, and a special glass bottle for dissolved oxygen, samplers also measure river temperature with a thermometer;
- If samplers see a problem such as an algae bloom they are encouraged to take a picture with their smartphone;
- Nitrate, total phosphorus, and fecal coliform bacteria are analyzed by a MassDEP certified contract lab (Microbac in Dayville, CT), total suspended solids, dissolved oxygen, and pH are analyzed by Veolia North America at the Taunton WWTP lab;
- We do training of volunteers the last Saturday in February with a bad weather back up day of the First Saturday in March;
- We are always looking for new volunteers to increase the depth to which we have our sampling sites backed up. The folks who do the sampling find it fun and educational to get out on the river to see what's going on early in the early morning 5:30 to 8:00 AM (sample drop off time is by 8:30 AM);
- A good place to go for TRWA Monitoring Program information and results is the TRWA website <http://savethetaunton.org/> and click on the Water Quality Monitoring tab at the top of the page.

QUESTIONS – Visit the website or contact Steve Silva at [steve124@gmail.com](mailto:steve124@gmail.com)