

## 25 years of testing the Narrow River watershed

By PHILIP COZZOLINO

**NARRAGANSETT** – The University of Rhode Island's Watershed Watch program began testing the water quality of 14 lakes in 1988. Since, the program has expanded to over 250 sites on 12 water bodies with over 400 volunteers. As part of this expansion, the Narrow River Preservation Association began its own branch of the watershed testing program with Riverwatch in 1992. On Sunday, the Maury Loontjens Memorial Library played host to On Pettaquamscutt's Winter Speaker Series final entry – Linda Green, URI Watershed Watch program director, who gave a detailed breakdown of the results of 25 years of testing the watershed.

The program seeks volunteers to test the temperature, salinity, dissolved oxygen levels, chlorophyll levels and bacteria and nutrient levels of the various streams, lakes, rivers and other waterbodies that comprise the Narrow River watershed in Rhode Island and parts of Massachusetts and Connecticut. The data is collected monthly from May through October is then analyzed by scientists within URI's Watershed Watch. The group conducts this science-based, educational research and reports its findings for public use and knowledge. State and federal agencies such as the Environmental Protection Agency, the U.S. Army Corps of Engineers, Save the Bay and the Department of Environmental Management have used the data.

Green said the data and the program are crucial to the watershed's overall health.

"We monitor because we want to figure out if there's some clues we can discern as to what's going on [in the watershed],"

she said. "And the real challenge with environmental monitoring is things change naturally, they go up, they go down, and you have to try to discern if there's a trend going on versus some kind of normal variation."

"Water temperature testing is very important," Green continued, on the aspects of various types of testing the Watershed Watch program conducts. "We take a look at filtering water to figure out the algae levels, and then we look at the dissolved oxygen level, because oxygen is not only important for us to breathe, it's also important for the aquatic organisms in the water."

The URI program came specifically to Narragansett in 1992 with the creation of Narrow River Preservation Association's Riverwatch program, at the urging for public volunteers to be involved with the water quality testing process.

"The NRPA took at their river and figured out themselves where they thought it was most appropriate to have the monitoring going on," said Green. "And then, over the years, we've added a couple other sites."

2016 represented the group's 25th year in river monitoring and researchers have been busy analyzing the collected data since.

"The type of testing we do is like getting a physical," said Green. "If you measure your cholesterol one time, you could be appalled. But you want to take a look at it over the years and see how it's changing – is it getting better? Is it getting worse?"

The 25 years of data suggests Narrow River is clean enough for swimming, has never been clean enough for aquaculture (too much fecal



PHOTO COURTESY NARROW RIVER PRESERVATION ASSOCIATION

**NRPA member and Riverwatch volunteer David Smith tests water from Narrow River.**

coliform bacteria), is dirtiest after a storm (per storm water runoff), is increasing in water temperature (thought to be an effect of global warming), decreasing in bacteria levels and is oxygen-rich enough to support substantial amounts of life. The data has gone on to inform decisions regarding the overall health of the watershed, such as the construction of dams in specific locations in order

to, for example, decrease the amount of chlorophyll in a given water body. To view the data and conclusions in PowerPoint form, please visit [narrowriver.org/research](http://narrowriver.org/research).

The NRPA is now accepting volunteers for its Riverwatch water monitoring program. The group will host two volunteer training sessions on Thursday, April 5 from 6:00 p.m. to 9:00 p.m. and Sunday, April 8, from

1:00 p.m. to 4:00 p.m., in the Weaver Auditorium of the Coastal Institute in Kingston. To join the effort to help preserve Narrow River, please contact NRPA at [nrpa@narrowriver.org](mailto:nrpa@narrowriver.org).

Over the 25 years of testing, there have been over 42,000 samples taken of Narrow River water and over 12,000 lab analyses, culminating in over 7,800 volunteer hours dedicated to the health of the watershed.

The local sites tested include Gilbert Stuart stream, Lacey Bridge, several portions of the upper and lower ponds, Mettatuxet Beach, End of the Narrows, Middlebridge, Pettaquamscutt Cove, Sprague Bridge, Mettatuxet Brook, Mumford Brook, Lakeside Dock and Lakeside Outfall.