

Water Testing

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One of our longest and most costly projects that we do every year is water testing. It costs us over \$3,500 every year. Since our funding is so scarce, we have reviewed our locations and test regime to develop a more streamlined and hopefully useful data set.

In 1983 when we first started, we worked with the 3 schools in our watershed, Elizabethtown-Lewis, Westport, and Willsboro- Essex 5th graders. We used Hach test kits and sampled: Nitrogen, Specific Conductivity, pH, Ortho-phosphorus, temperature, and suspended solids. We sampled quarterly: the samples were not taken on the same day as each school had a different schedule, winter samples were VERY cold and sometimes slippery, not all the data made sense, it was a little bit dangerous for the children climbing over the rocks, curriculums for schools became more restrictive etc. The kids and the science teachers loved it, but we decided to go with one day testing quarterly and with trained adults.

In 1988, the Executive Director and a Board member began doing the testing all on the same day, quarterly, using the Hach test kits. The data accumulated. We were then told by DEC that they would not accept our results as they were not from a certified laboratory. We received a grant from the Lake Champlain Basin Program (LCBP) to pay for water test analysis at a certified laboratory. Then we had the great idea to buy the equipment for a certified laboratory and 5 years of funding for our testing program. We set this up at the Westport Wastewater Treatment Facility in Wadhams and Dennis Kalma and Laurie Davis ran the lab. We continued monthly testing underwritten by LCBP. Over the 5 years we picked up testing for several other Wastewater Treatment Facilities which ended up paying for our sampling regime which by now included 14 tests.

We used the Wadhams laboratory and helped several towns with low cost water testing until our equipment started to get old and we needed to replace it. After long and ardent discussions, we decided to get out of the water testing business and not unfairly compete with private water testing labs. So, for the last 8 years we are back paying for our water testing. We decided not to test through the winter as we never had any big problems then. In fact, we went to testing only in July and August as that is when the public swims in the water and comes in the closest contact. It is also the only time we found elevated coliform and/or fecal coliform counts. We have changed our locations for testing to make it easier and safer for the samplers (Anita, I am way older now and Amy Calkins), and we are considering reducing the number of tests to save money.

Locations we test and why:

1. North Fork – this is our cleanest location and easy to reach by road
2. Kingdom Dam outfall – outflow from Lincoln Pond and up stream for Black River (we do not have a boat to take a lake sample)
3. Rice Falls – up stream for The Branch before Elizabethtown
4. Library parking lot – downstream on The Branch after most of Elizabethtown
5. Maple St Bridge – Main Stem of Boquet River: after Elizabethtown and The Branch meet, before Wadhams (there is a flood water height measure on this bridge abutment).

6. Trout Pond Rd - Cleanest spot for the North Branch
7. Burpee Brook – out of old landfill which is closed now (considering moving to every 4 years)
8. Spruce Mill up Wells Hill – cleanest for Spruce Mill
9. DEC fish access on Co Rte. 12 Spruce Mill after Reber farms and before North Branch junction
10. McCauliffe Rd – Main Stem after Wadhams and Before North Branch junction
11. Spear Rd bridge – North Branch after farms and before junction with Main Stem
12. Willsboro canoe launch – After Main Stem, North Branch and Willsboro– this last location is where the heavy metals test is done

Tests that we do in July and August: date, time, weather, water temperature, pH, Specific Conductivity, Total Dissolved Solids, Total Coliform, Fecal Coliform, E.Coli, Nitrate + Nitrate as N, Total Kjeldahl Nitrogen (organic nitrogen), Ortho-phosphorus, and Total Phosphorus, Total Suspended Solids.

For the most part the river is very clean. We are happy about this. I hope to summarize the tests in the next newsletter.