

Deerfield River Watershed Association

ARCHIVED RESULTS

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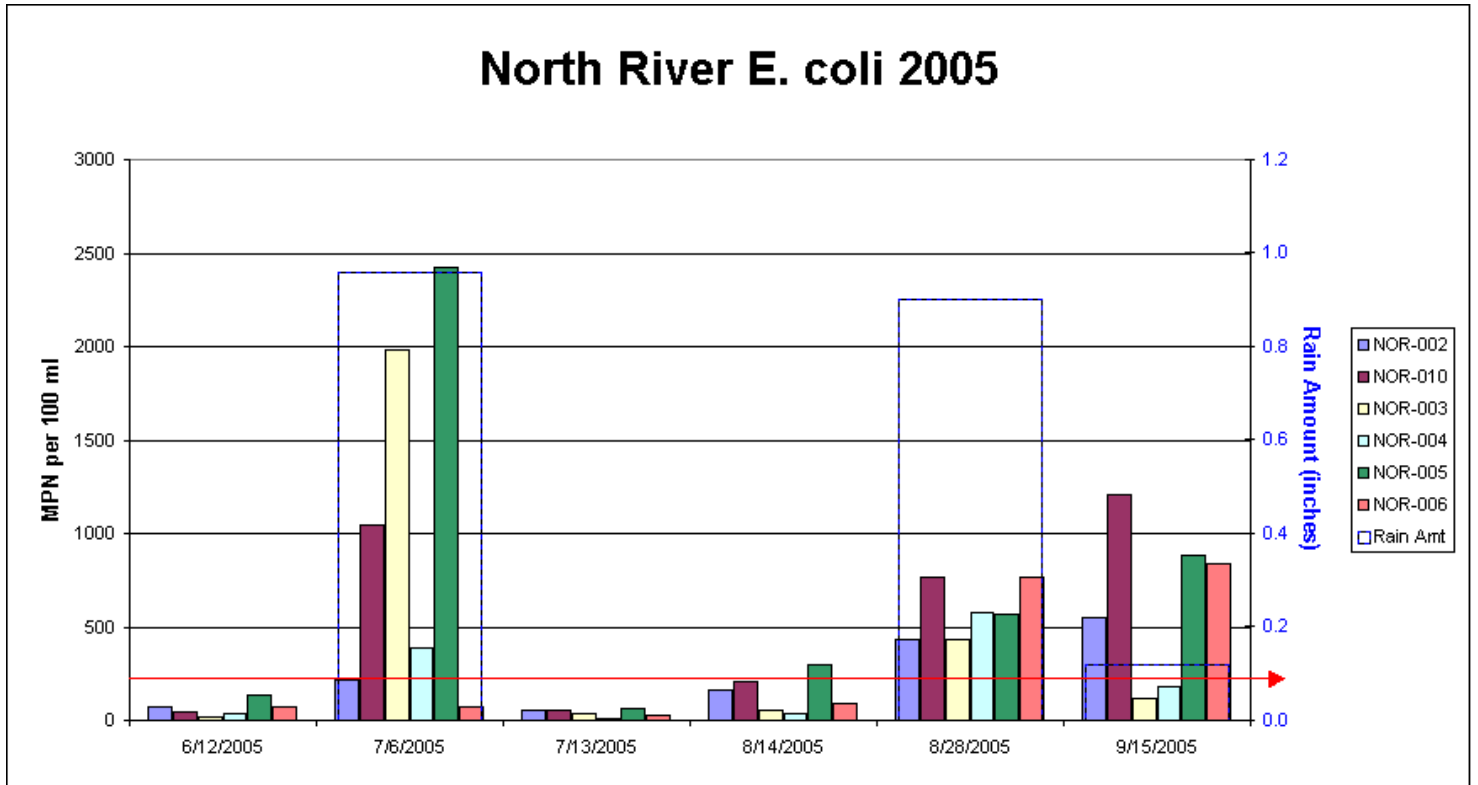
[2002 Final Rpt](#)

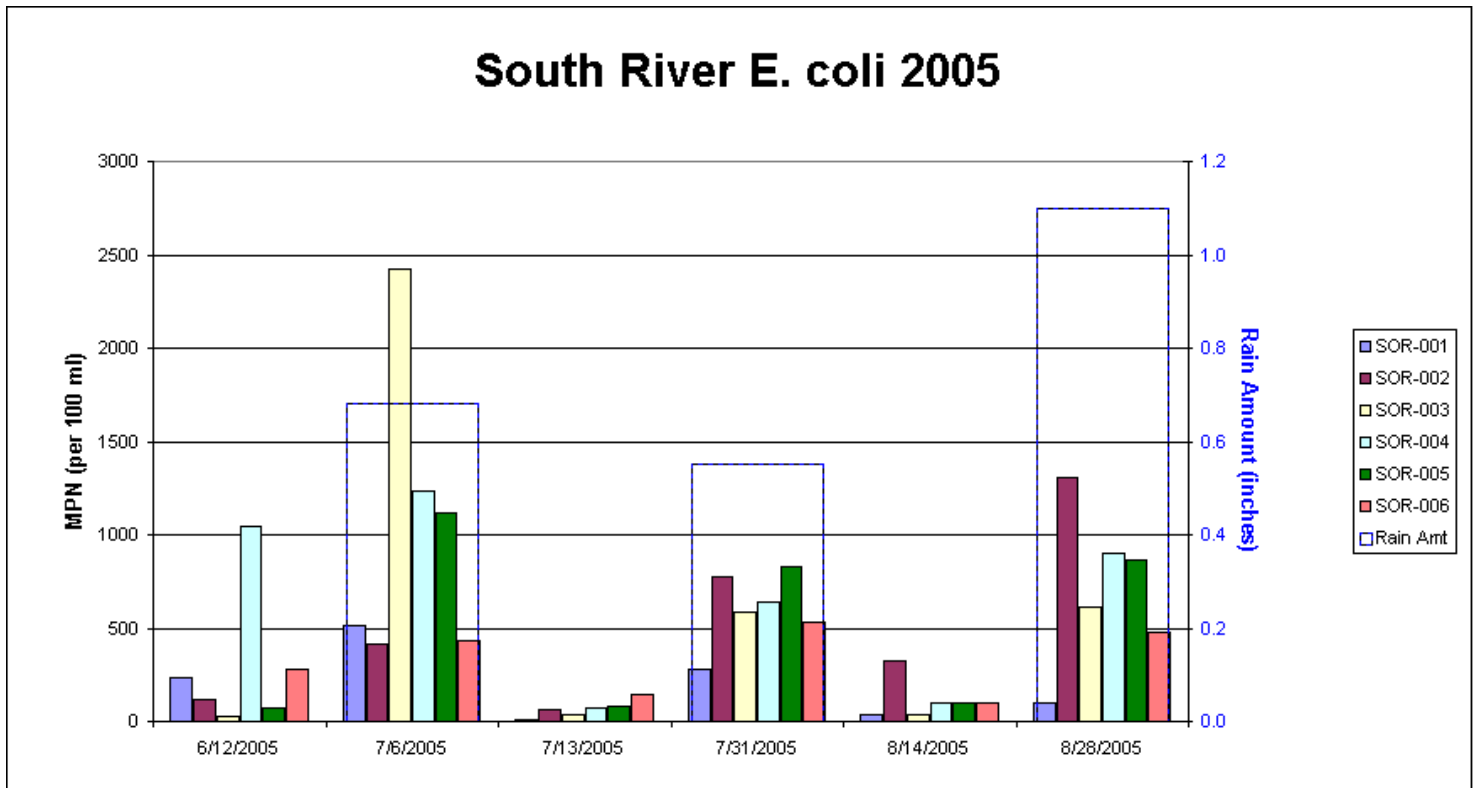
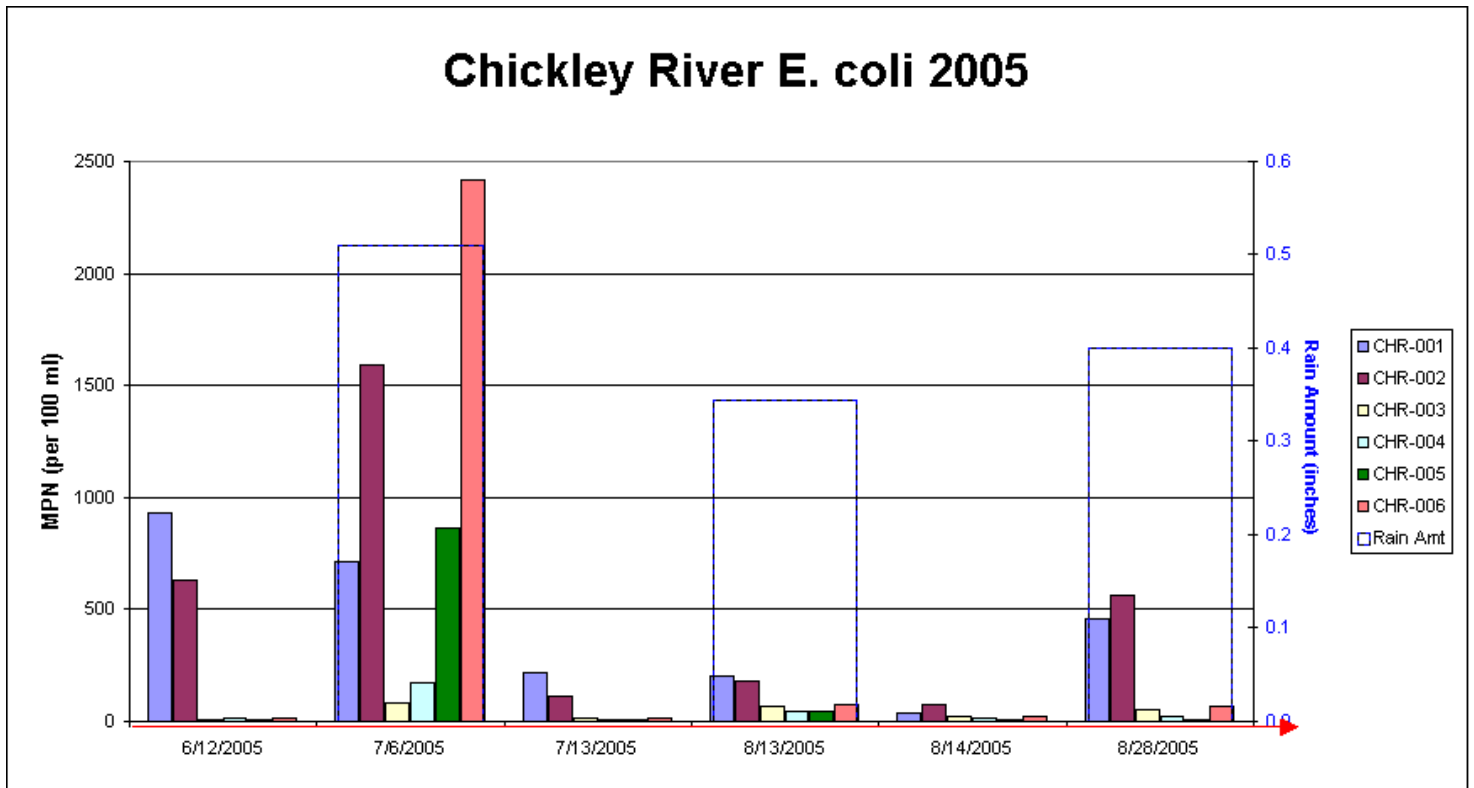
[DRWA Home](#)



Listen to a Field Notes 2000 [interview](#) on WFCR about our water quality program

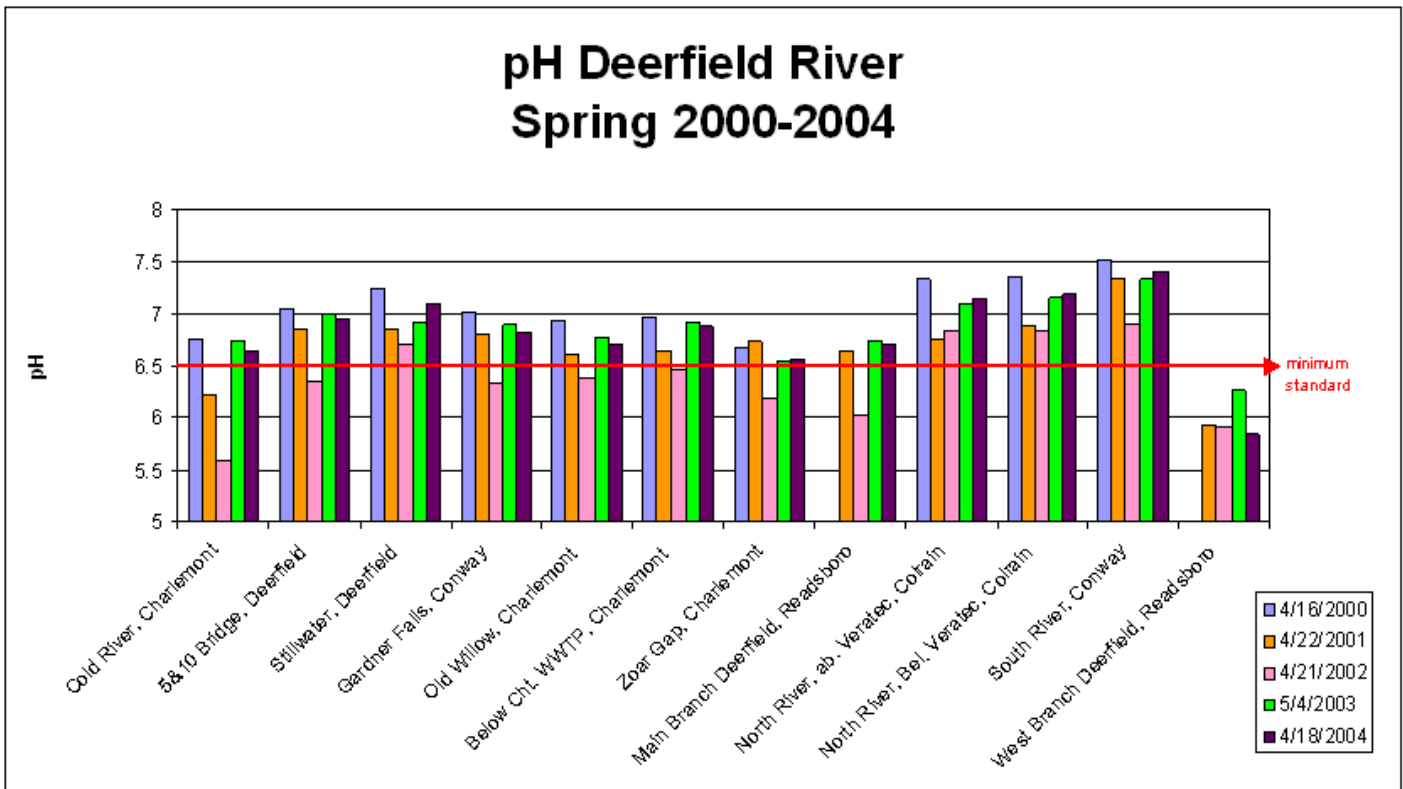
2005



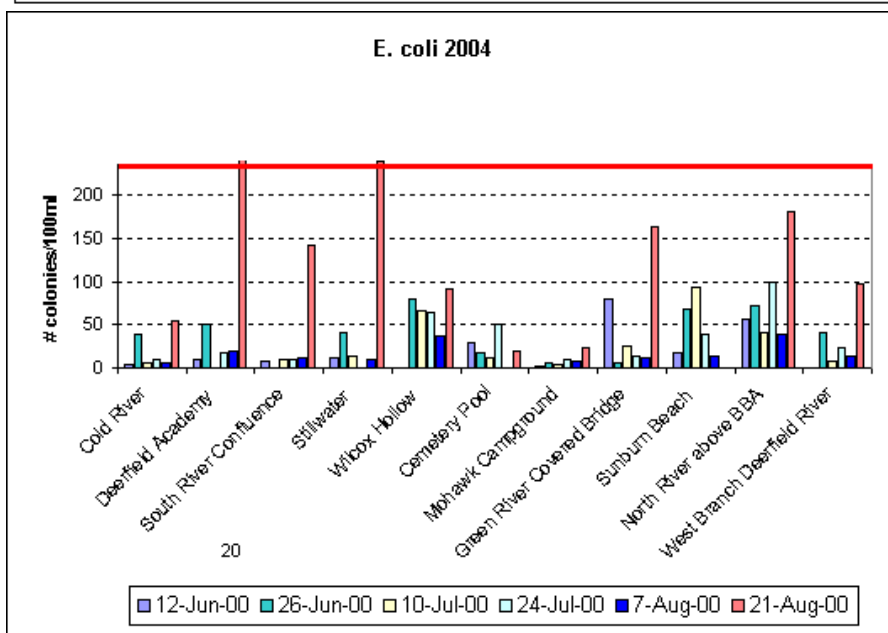
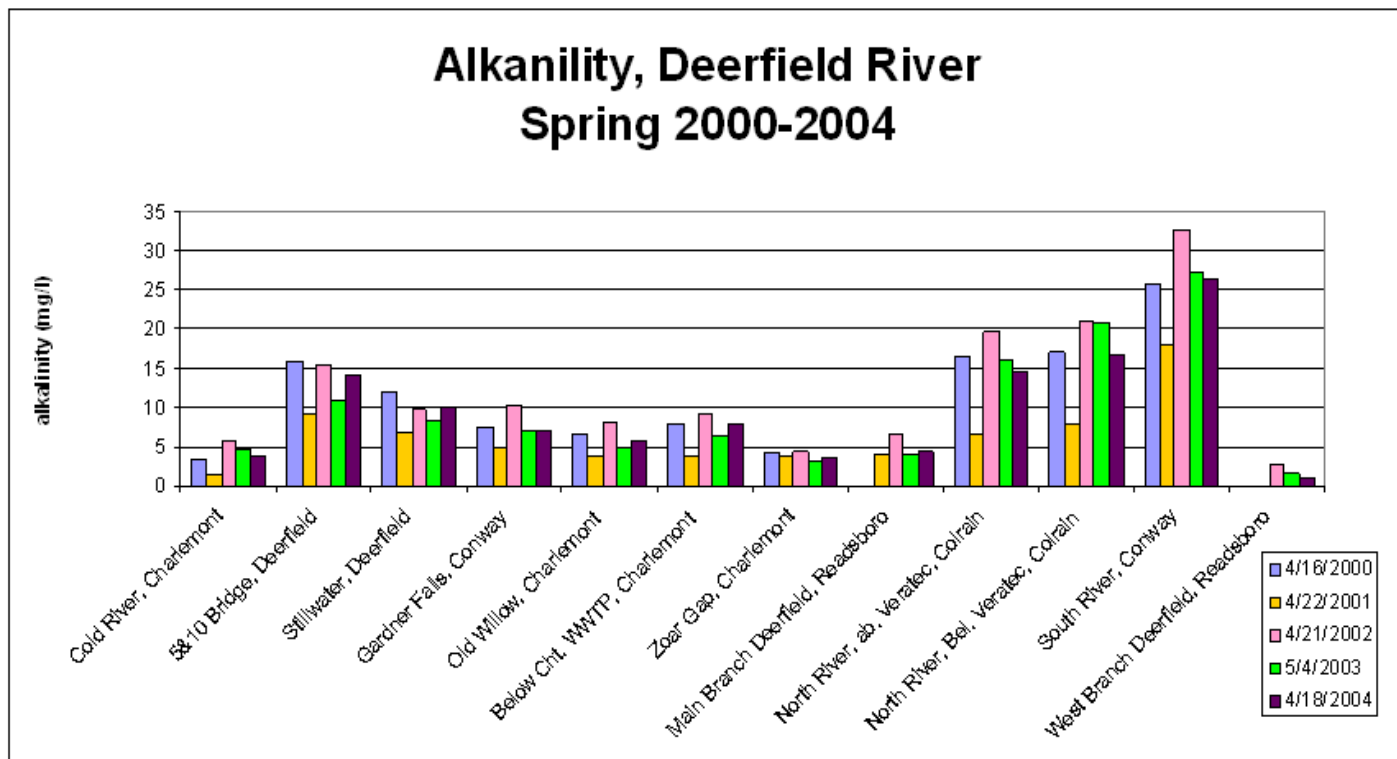


2004

We sampled our traditional sites Sunday April 18, 2004. This year we only analyzed for pH and alkalinity, to save on effort, since dissolved oxygen remains excellent and unchanged this time of year. See below for graphs of results over the past 5 years. Note that 2002 shows low values: that is the year that snowpack was very extensive and we probably had a lot of meltwater in the streams still--which is what we hope for in April, to catch the worst-case (most acidic) conditions of the year. In 2003 logistical problems led us to sample in May and results showed higher pHs then--all the snowmelt water was long gone. This year we seem to be on the high side of normal. It's probable that we missed the snowmelt again this year.



The alkalinity results strangely don't mimic the pH results: the lowest values are observed in 2001, while they are highest in 2002. Not sure I can explain what's going on there...



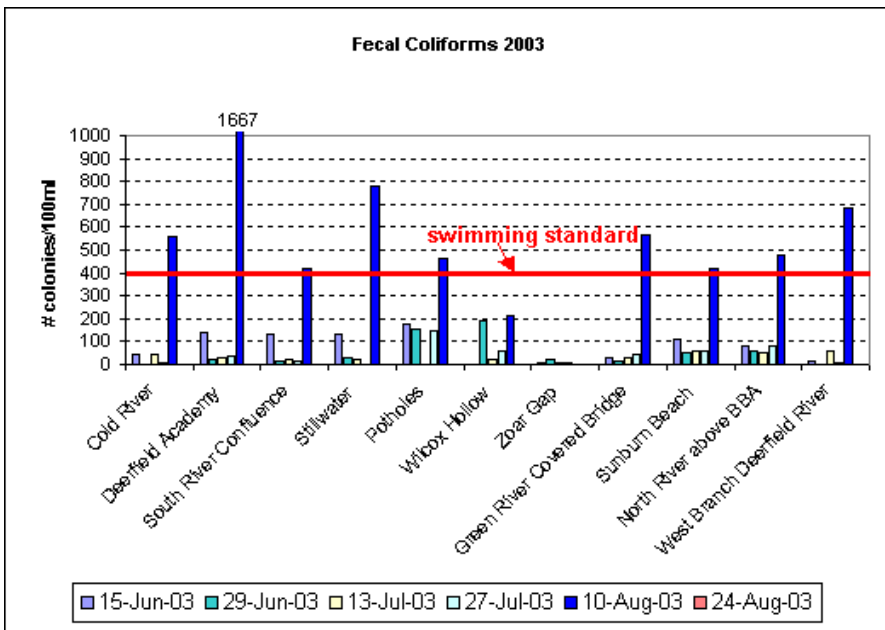
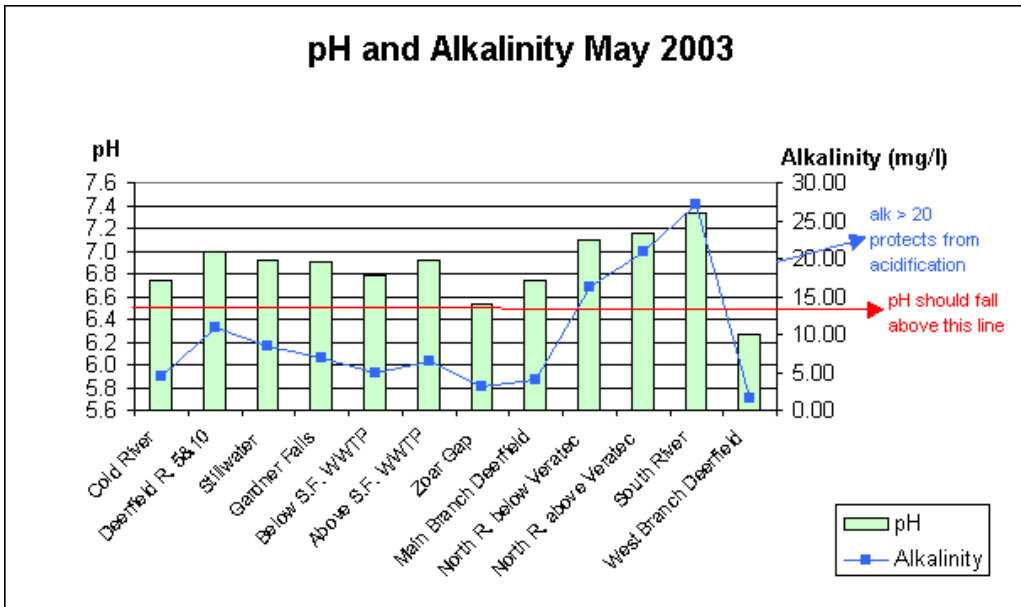
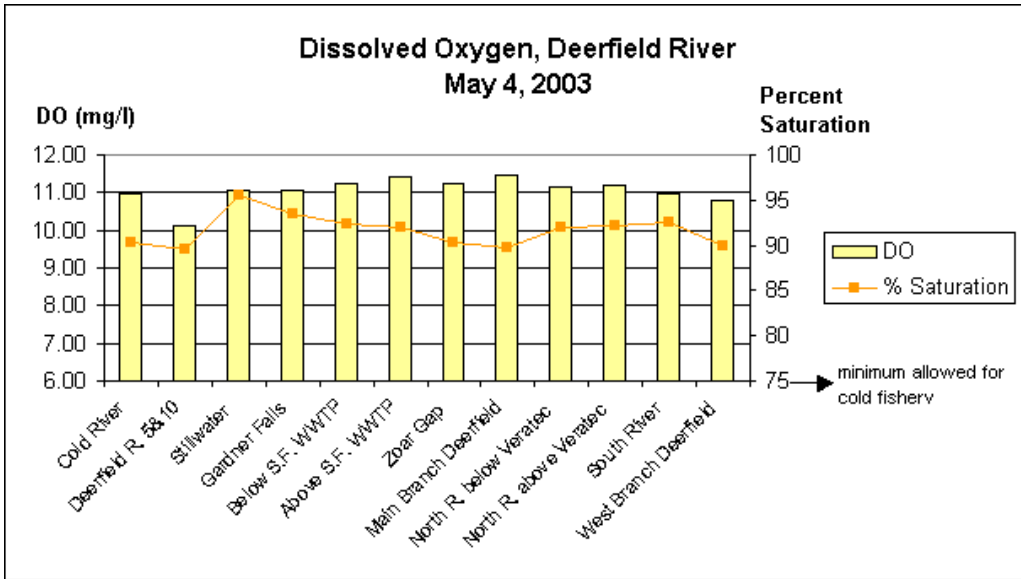
The swimming standard is 235 colonies/100ml (red line on graph). The last collection, August 22 (mis-labeled in graph), followed heavy rains, hence the high bacteria counts.

May 4, 2003

Usually we sample our "baseline water quality" sites in mid-April, trying to catch snowmelt which tends to lower pH, but our schedules this year (2203) didn't allow us to sample until May 4. As a result, our pH data are higher than in the past: All but our West Branch site in Readsboro were above the State standard of 6.5. We still see fairly low alkalinities, though, with only four sites at or above 20 mg/l, which is enough alkalinity to buffer the river against acidification.

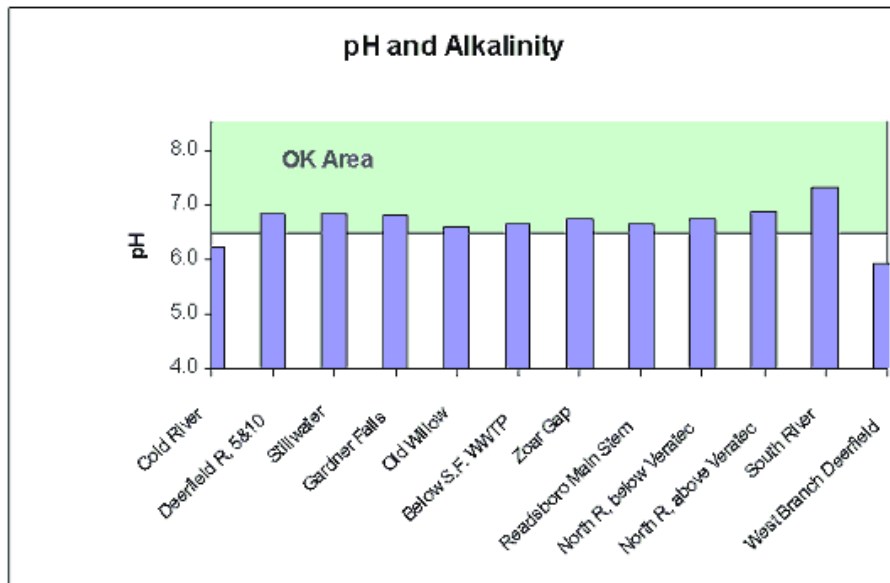
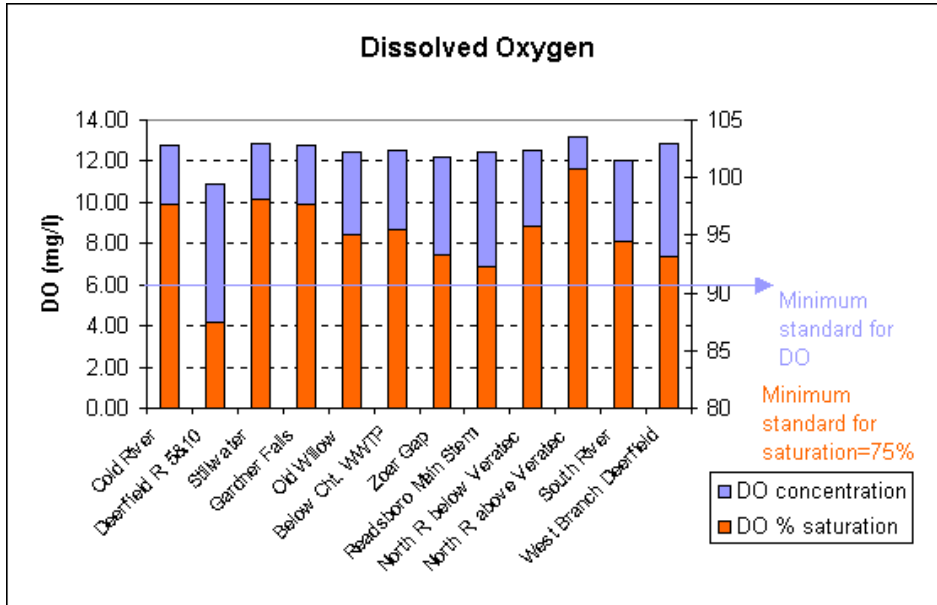
Regarding dissolved oxygen, the river and tributaries were very well oxygenated (above the State standard of 6 mg/l and 75% saturation for cold fishery) and temperatures were cool, ranging from 7 to 12°C. This is of course no surprise, as we sample between 7 and 10 am. Worst conditions for oxygen are typically seen at dawn, after a long period of darkness which means no photosynthesis but plenty of respiration by aquatic organisms. As warm water holds less oxygen than cold water, worst conditions are seen in mid- to late-summer. Testing done by the MA Dept. of Environmental Protection during those worst conditions has shown that the Deerfield River always holds plenty of oxygen: Good news for the fish (and fishermen!)

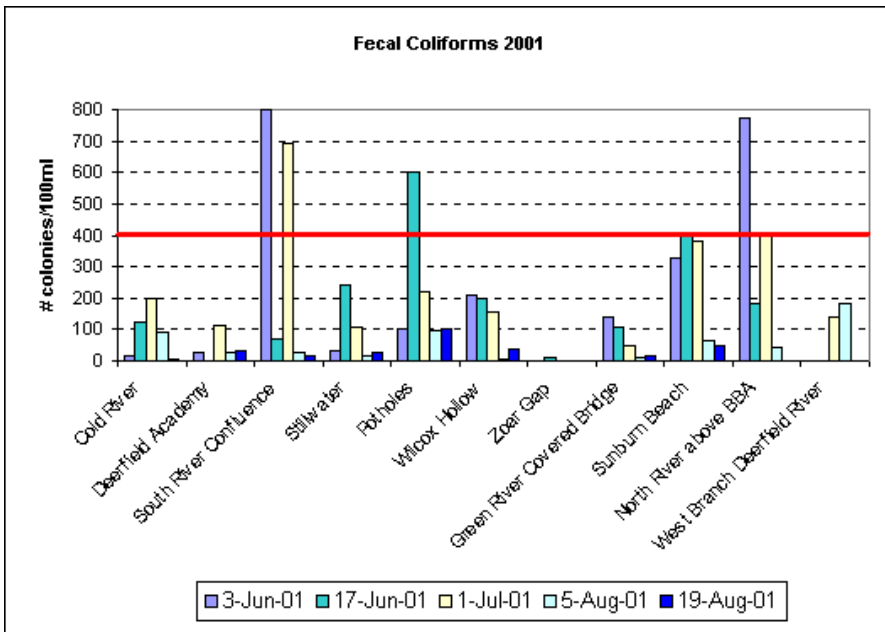
Fecal coliform counts have been low so far this year (standard is 400 colonies/100ml for a single sample), good news for swimmers! It could be due to long and heavy rains in the spring that washed out the pollution and diluted it in the streams. Our two last collections occurred after sustained dry weather, when typically we see low bacteria counts at our swimming holes. We plan to have three more collections this summer at 11 unofficial swimming beaches.



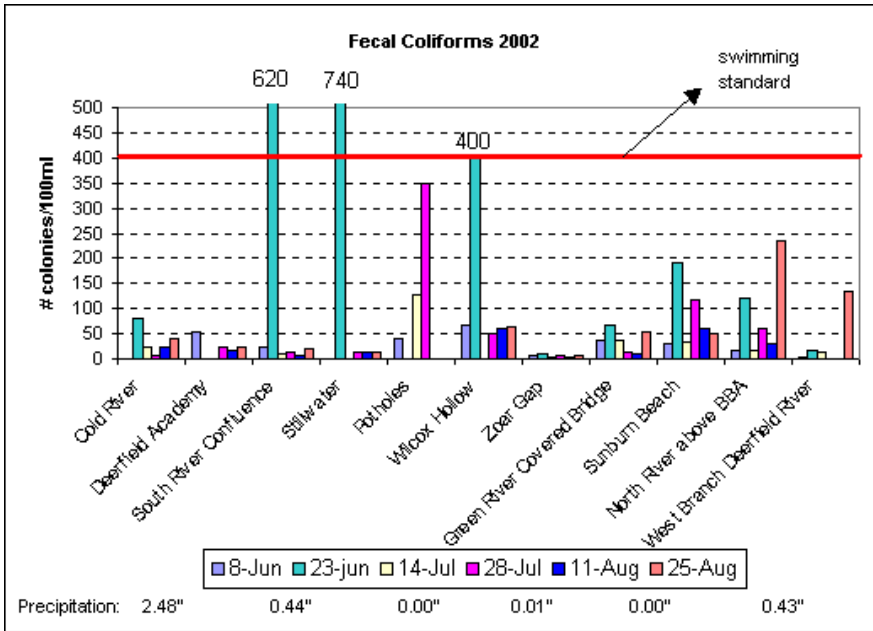
April 22, 2001:

We started our monitoring season April 22 and collected samples from 12 sites. We are excited to have added two sites in Vermont thanks to volunteer John Whitman of Readsboro. We usually see very good water quality for both dissolved oxygen and pH/alkalinity. This year our pHs are lower than usual, as are alkalinities. The West Branch of the Deerfield in Readsboro even had no alkalinity at all! Without buffering capacity, this site also had a low pH of 5.93, well below the Massachusetts standard of 6.5. We can probably attribute low values to the important snowpack this year, which was still actively melting on the 22nd of April. As a matter of fact, a lot of our sites were flooded, and made collection more difficult for our volunteers. Thanks everyone for working extra hard and allowing 100% data collection.





2002



Contact

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National Contact: [EPA web site](http://www.epa.gov)



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Updated 5/2/07 by [MF Walk](#) [DRWA HOME](#)

