

## RIVER MONITORING BEGINS 18<sup>TH</sup> SUMMER

“Perfect weather, a temperature of 60, and water temperature at 62. How nice to get out on the river on a beautiful day before going to work,” wrote one of the 30 monitors who spent a half hour last Tuesday morning collecting water samples to analyze for water quality to begin the 18<sup>th</sup> season of collecting by the Souhegan Watershed Association.

Other monitors, each with a single site on either the Merrimack or Souhegan Rivers, echoed the same thought and reported lots of buzzing insects, birds, animal tracks, swimming geese with trailing babies, and a soaring red tailed hawk. Other people were spotted out dog walking and several up early fishing.

Monitors also picked up the trash left at their site since last season as part of their efforts. Besides the usual, some of the trash included bullet ridden cans at the Thorntons Ferry access in Merrimack. Others cautioned about the ample poison ivy that loves the river banks.

The samples collected showed excellent dissolved oxygen levels on both rivers. This is the best indicator of the overall health of the river, the fish, and the habitat.

E. coli levels showed showed generally good results also. The Merrimack River between Manchester and Tyngsborough had very good numbers. The program uses a count of less than 88 to indicate perfect conditions. This is the state limit for public swimming beaches. Less than 126 is still good for the type of tests done. No sites on the Merrimack were higher than 88. The highest number was 62 at the Thorntons Ferry access; the lowest 5 at Arms Park in Manchester.

The major news for the Merrimack River was how low the level of the river was. “This is the lowest I’ve ever seen it,” wrote one of the long term monitors in the Tyngsborough area. What they were reporting was the lowering of the pond that is caused by the removing of the boards on the Pawtucket Dam in Lowell. The dam blocks the river and raises the pond all the way upstream to Reeds Ferry. This raising and lowering of the river has been a source of concern by river groups in the Nashua area who have called for the dam to be improved along the lines of the newly improved Jackson Falls Dam behind the library in Nashua.

The Souhegan River is monitored over its entire length from Ashburnham, MA, to its mouth in Merrimack. The Souhegan is a smaller river and meanders slowly in its lower stretches from Milford to Merrimack. E. coli counts vary generally from very good in the upper river to more stressed in the lower river. Over most of its length E. coli counts this week were below 88 with the exception of three slightly higher readings. Greenville Mill Pond was 110 and the Amherst Canoeport on Boston Post Road was 104. A higher reading, 236, was noted in the river behind Lorden Plaza in Milford, the only spot of any concern on either river. Watson Park in Merrimack was a healthy 46.

All of the results can be found at [nashuatelegraph.com/specialreportsrivertestresults/](http://nashuatelegraph.com/specialreportsrivertestresults/) or [souheganriver.org](http://souheganriver.org).

The next test will be done on June 17. There are still sites in Milford and Wilton that could use a volunteer. Tests take about a half hour and are conducted every other Tuesday morning through September. Anyone interested can contact Karen Mattor at [swawateresting@gmail.com](mailto:swawateresting@gmail.com) for more information. Also anyone interested in doing macroinvertebrate sampling can call for information.

The lab tests are all done by certified personnel at the wastewater treatment plants in Manchester, Milford, Nashua, and Merrimack. The program is coordinated by the Souhegan Watershed Association.

Here are the E. coli results for this week. Numbers lower than 88 are excellent; under 126 are acceptable for most people.

#### **E-COLI** MONITORING RESULTS FOR TESTS TAKEN ON JUNE 3, 2014

##### SOUHEGAN RIVER SITES:

1. Billy Ward Pond, Ashburnham #1 22.8, #2 1.0
2. SoR 333 River Road above Water Loom Pond, New Ipswich 8.5
3. SoR 320 Highbridge, New Ipswich 7.5
4. SoR 309 Above Greenville Mill Pond, Greenville 110.0
5. SoR 296 Downtown Greenville upstream of WWTP 76.3
6. SoR 291 Green Bridge off Rte 31 below Greenville WWTP 47.3
7. SoR 218 Below the Horseshoe, Wilton NA
8. SoR 210 Downtown Wilton NA
9. SoR 201 Pine Valley Mill, West Milford 52.1
10. SoR 170 Behind Hayward Field, West Milford NA
11. SoR 155 Souhegan Valley Boys and Girls Club, Milford NA
12. SoR 146 Swing Bridge, Milford 82.0
13. SoR 133 Riverside Cemetery, Milford 71.7
14. SoR 130 Behind Lorden Plaza, Milford 235.9
15. SoR 122 Amherst Country Club 81.6
16. SoR 116 Amherst Conservation land Fairway Road, Amherst 88.6
17. SoR 095 Boston Post Road Canoeport, Amherst 104.3

- 18.Sor 070 Seaverns Bridge, Merrimack 73.8
- 19.SoR 057 Indian Ledges, Merrimack 60.9
- 20.SoR 034 Turkey Hill Bridge, Merrimack 70.3
- 21.SoR 001 Watson Park, DW Hwy, Merrimack 46.4

MERRIMACK RIVER SITES:

- 1. Mer 600 Above Amoskeag Dam, Manchester 14.4
- 2. Mer 590 Arms Park, Manchester 5.2
- 3. Mer 570 Goffs Falls, Litchfield 13.4
- 4. Mer 560 Depot Street, Merrimack 15.6
- 5. Mer 550 Upstream of Souhegan River, Merrimack 26.6
- 6. Mer 540 Thorntons Ferry, Merrimack 62.0
- 7. Mer 530 Greeley Park, Nashua 17.3
- 8. Mer 520 Taylors Falls Bridge, Nashua 52.9
- 9. Mer 510 Sagamore Bridge, Hudson 20.1
- 10. Mer 500 Pheasant Lane Mall, Hudson NA
- 11. Mer 490 Upstream of Tyngsboro Bridge 20.1

Flow on Upper Souhegan was 93 cubic feet per second; expected flow for that date is 85 cfs.

Flow on Lower Souhegan was 259 cubic feet per second; historic flow for that date is 167 cfs.

Flow on Merrimack was 4070 cubic feet per second; historic flow for that date is 4590 cfs.

RAINFALL – showers on Sat; otherwise clear

**DISSOLVED OXYGEN** RESULTS FOR TESTS TAKEN ON JUNE 3, 2014

SOUHEGAN RIVER SITES:

- 1. Billy Ward Pond, Ashburnham #1 8.72, #2 8.88
- 2. SoR 333 River Road above Water Loom Pond, New Ipswich 8.62
- 3. SoR 320 Highbridge, New Ipswich 8.99
- 4. SoR 309 Above Greenville Mill Pond, Greenville 8.86

5. SoR 296 Downtown Greenville upstream of WWTP 9.07
6. SoR 291 Green Bridge off Rte 31 below Greenville WWTP 9.17
7. SoR 218 Below the Horseshoe, Wilton NA
8. SoR 210 Downtown Wilton NA
9. SoR 201 Pine Valley Mill, West Milford 9.65
10. SoR 170 Behind Hayward Field, West Milford NA
11. SoR 155 Souhegan Valley Boys and Girls Club, Milford NA
12. SoR 146 Swing Bridge, Milford 9.08
13. SoR 133 Riverside Cemetery, Milford 9.20
14. SoR 130 Behind Lorden Plaza, Milford 9.08
15. SoR 122 Amherst Country Club 9.03
16. SoR 116 Amherst Conservation land Fairway Road, Amherst 8.87
17. SoR 095 Boston Post Road Canoeport, Amherst 8.62
18. Sor 070 Seaverns Bridge, Merrimack 8.63
19. SoR 057 Indian Ledges, Merrimack 8.96
20. SoR 034 Turkey Hill Bridge, Merrimack 8.82
21. SoR 001 Watson Park, DW Hwy, Merrimack 9.63

#### MERRIMACK RIVER SITES:

1. Mer 600 Above Amoskeag Dam, Manchester 9.26
2. Mer 590 Arms Park, Manchester 9.45
3. Mer 570 Goffs Falls, Litchfield 9.29
4. Mer 560 Depot Street, Merrimack 9.24
5. Mer 550 Upstream of Souhegan River, Merrimack 9.19
6. Mer 540 Thorntons Ferry, Merrimack 8.97
7. Mer 530 Greeley Park, Nashua 9.18
8. Mer 520 Taylors Falls Bridge, Nashua 8.77
9. Mer 510 Sagamore Bridge, Hudson 9.11
10. Mer 500 Pheasant Lane Mall, Hudson NA
11. Mer 490 Upstream of Tyngsboro Bridge 9.18

Here's a link <http://water.usgs.gov/edu/dissolvedoxygen.html> that may help explain why we test and why we test early in the morning. Generally these results are excellent - and they are expected to be good at this time of year. Generally they are good for both rivers all season long. Numbers run between 5 and 10 (the higher the better). 10 represents full saturation; 5 or lower is bad for the fish and other organisms.