

## **WATER QUALITY TESTING JUNE 29, 2021**

This is a stressful time to be a river. The river flow on both the Souhegan and Merrimack Rivers is about a third of what it should be at this time of year. And the water temperature has been rising. There's not a lot of water and what there is is hot. Not good for the plants and animals, not good for the rivers.

Drought conditions existed earlier in the season and returned recently. (Though as I write this the rain begins).

Water quality testing on the Souhegan and Merrimack Rivers began again Tuesday after a year-long Covid hiatus. And what was seen was a stressed condition in both rivers. Dissolved oxygen levels were not as satisfactory as in the past for this date when we've seen 8s and 9s. DO is the best test for the quality of the river itself.

E. coli levels were higher than expected since there had been no rain in the three days before the test. Rain tends to bring up the E. coli levels – especially after a drought. The fact that the water levels are so low and little flow, more ponding, double-droughts, and high temperatures are probably the cause of the high E. coli levels right now. Out away from population centers the levels look pretty good, but moving through Wilton and Milford the bacteria levels increased to unhealthy levels.

There's a tale of two rivers when it comes to results. The Souhegan is much smaller than the Merrimack and therefore more easily impacted. The Merrimack River in our stretch between Manchester and Tyngsborough almost always has good E. coli levels. It may have other pollutants that we do not test for, but it's good for bacteria most of the time. That is the case this week also. Although we don't have complete coverage, it's safe to say that the bacteria levels are good on the Merrimack.

(As an aside, there are times when the bacteria levels do go up in the Merrimack. After heavy rainstorms Manchester and Nashua may release raw sewage into the river. The runoff and sewage is combined in one pipe that goes to the treatment plant, but when the flow exceeds the capacity of the plant, the overflow is directed directly into the river. Both cities are under federal mandates to clear this up and eliminate CSOs – and they have been for many years.)

Here are the results of this week's test. The next test will be on July 27.

Flow on Upper Souhegan was 18 CFS. Expected flow for this date is 62.

Flow on Lower Souhegan was 38 CFS. Historic flow for this date is 100.

Flow on Merrimack was 807 CFS. Historic flow for this date is 2700.

RAINFALL: none; clear

Temperature: Souhegan 25C Merrimack 26C

## E COLI RESULTS FOR TESTS TAKEN ON JUNE 29, 2021

*E. coli* levels less than 88 are good; 88-126 are marginal; 126-406 are unsatisfactory; above 406 is dangerous and should be avoided.

SOUHEGAN RIVER SITES:	mpn/100mL
1. Billy Ward Pond, Ashburnham #1; #2	435.2; 14.8
2. SoR 333 Water Loom Pond, New Ipswich	5.2
3. SoR 320 Highbridge, New Ipswich	15.5
4. SoR 309 Above Greenville Mill Pond, Greenville	42.0
5. SoR 296 Downtown Greenville upstream of WWTP	32.3
6. SoR 291 Green Bridge off Rte 31 below Greenville WWTP	74.4
7. SoR 218 Below the Horseshoe, Wilton	
8. SoR 210 Downtown Wilton	410.6
9. SoR 201 Pine Valley Mill, West Milford	410.6
10. SoR 170 Behind Hayward Field, West Milford	307.6
11. SoR 155 Souhegan Valley Boys and Girls Club, Milford	410.6
12. SoR 146 Swing Bridge, Milford	178.5
13. SoR 133 Riverside Cemetery, Milford	224.7
14. SoR 130 Behind Lorden Plaza, Milford	
15. SoR 122 Amherst Country Club	307.6
16. SoR 116 Amherst Conservation land Fairway Road, Amherst	
17. SoR 095 Boston Post Road Canoeport, Amherst	261.3
18. SoR 057 Indian Ledges, Merrimack	
19. SoR 034 Turkey Hill Bridge, Merrimack	146.7
20. SoR 015 Wildcat Falls, Merrimack	104.3

## MERRIMACK RIVER SITES:

1. Mer 600 Above Amoskeag Dam, Manchester	
2. Mer 590 Arms Park, Manchester	
3. Mer 580 Upstream of Piscataquog River, Manchester	
4. Mer 570 Goffs Falls, Litchfield	65.7
5. Mer 560 Depot Street, Merrimack	73.3
6. Mer 550 Upstream of Souhegan River, Merrimack	
7. Mer 540 Thorntons Ferry, Merrimack	
8. Mer 530 Greeley Park, Nashua	
9. Mer 520 Taylors Falls Bridge, Nashua	22.3
10. Mer 510 Sagamore Bridge, Hudson	29.5
11. Mer 500 Pheasant Lane Mall, Hudson	
12. Mer 490 Upstream of Tyngsboro Bridge	17.3

## DO MONITORING RESULTS FOR TESTS TAKEN ON JUNE 29, 2021

*Dissolved oxygen levels between 5 and 10 are acceptable. The higher the better. Levels below 5 are acidic and bad for the fish and wildlife*

SOUHEGAN RIVER SITES:	mg/L
1. Billy Ward Pond, Ashburnham #1 ; #2	7.04; 7.86
2. SoR 333 Water Loom Pond, New Ipswich	6.88
3. SoR 320 Highbridge, New Ipswich	7.64

4.	SoR 309	Above Greenville Mill Pond, Greenville	7.57
5.	SoR 296	Downtown Greenville upstream of WWTP	7.84
6.	SoR 291	Green Bridge off Rte 31 below Greenville WWTP	8.07
7.	SoR 218	Below the Horseshoe, Wilton	
8.	SoR 210	Downtown Wilton	8.26
9.	SoR 201	Pine Valley Mill, West Milford	8.09
10.	SoR 170	Behind Hayward Field, West Milford	7.14
11.	SoR 155	Souhegan Valley Boys and Girls Club, Milford	6.27
12.	SoR 146	Swing Bridge, Milford	7.68
13.	SoR 133	Riverside Cemetery, Milford	7.20
14.	SoR 130	Behind Lorden Plaza, Milford	
15.	SoR 122	Amherst Country Club	6.76
16.	SoR 116	Amherst Conservation land Fairway Road, Amherst	
17.	SoR 095	Boston Post Road Canoeport, Amherst	5.93
18.	SoR 057	Indian Ledges, Merrimack	
19.	SoR 034	Turkey Hill Bridge, Merrimack	6.45
20.	SoR 015	Wildcat Falls, Merrimack	7.97

MERRIMACK RIVER SITES:

1.	Mer 600	Above Amoskeag Dam, Manchester	
2.	Mer 590	Arms Park, Manchester	
3.	Mer 580	Upstream of Piscataquog River, Manchester	
4.	Mer 570	Goffs Falls, Litchfield	7.46
5.	Mer 560	Depot Street, Merrimack	7.52
6.	Mer 550	Upstream of Souhegan River, Merrimack	
7.	Mer 540	Thorntons Ferry, Merrimack	
8.	Mer 530	Greeley Park, Nashua	
9.	Mer 520	Taylor's Falls Bridge, Nashua	8.35
10.	Mer 510	Sagamore Bridge, Hudson	7.99
11.	Mer 500	Pheasant Lane Mall, Hudson	
12.	Mer 490	Upstream of Tyngsboro Bridge	8.81

**pH RESULTS FOR JUNE 29, 2021**

*pH levels around 7 are neutral and good. Slightly less may be a result of acid rain. These all look good.*

SOUHEGAN RIVER SITES:

1.	Billy Ward Pond, Ashburnham	#1 6.58 ; #2 6.65
2.	SoR 333	River Road above Water Loom Pond, New Ipswich 6.55
3.	SoR 320	Highbridge, New Ipswich 6.84
4.	SoR 309	Above Greenville Mill Pond, Greenville 6.69
5.	SoR 296	Downtown Greenville upstream of WWTP 6.88
6.	SoR 291	Green Bridge off Rte 31 below Greenville WWTP 6.93
7.	SoR 218	Below the Horseshoe, Wilton
8.	SoR 210	Downtown Wilton 7.15
9.	SoR 201	Pine Valley Mill, West Milford 6.64
10.	SoR 170	Behind Hayward Field, West Milford 6.52
11.	SoR 155	Souhegan Valley Boys and Girls Club, Milford 6.56
12.	SoR 146	Swing Bridge, Milford 6.68
13.	SoR 133	Riverside Cemetery, Milford 6.64
14.	SoR 130	Behind Lorden Plaza, Milford
15.	SoR 122	Amherst Country Club 6.74

16. SoR 116 Amherst Conservation land Fairway Road, Amherst	
17. SoR 095 Boston Post Road Canoeport, Amherst	6.61
18. SoR 057 Indian Ledges, Merrimack	
19. SoR 034 Turkey Hill Bridge, Merrimack	6.92
20. SoR 015 Wildcat Falls, Merrimack	7.12

#### MERRIMACK RIVER SITES:

1. Mer 600 Above Amoskeag Dam, Manchester	
2. Mer 590 Arms Park, Manchester	
3. Mer 580 Upstream of Piscataquog River, Manchester	
4. Mer 570 Goffs Falls, Litchfield	7.0
5. Mer 560 Depot Street, Merrimack	7.04
6. Mer 550 Upstream of Souhegan River, Merrimack	
7. Mer 540 Thorntons Ferry, Merrimack	
8. Mer 530 Greeley Park, Nashua	
9. Mer 520 Taylors Falls Bridge, Nashua	
10. Mer 510 Sagamore Bridge, Hudson	
11. Mer 500 Pheasant Lane Mall, Hudson	
12. Mer 490 Upstream of Tyngsboro Bridge	

#### OBSERVATIONS

A couple of the sites have become a bit more difficult to get to – perhaps to discourage people trying to get to the water during the pandemic.

A couple of fishermen out early trying their luck. Swimmers avoiding the heat on the Merrimack.

Lots of birds were spotted – Great Blue Heron, ducks – over 50 mallards in Amherst. Turtles, frogs, tracks galore.

Poison Ivy

And of course trash