

New Hampshire Volunteer River Assessment Program
2021 Pemigewasset River Watershed Data

NEW HAMPSHIRE DEPARTMENT OF ENVIRONMENTAL SERVICES



	Measurements not meeting New Hampshire surface water quality standards
	Measurements not meeting NHDES quality assurance/quality control standards

^A Specific conductance > 835 µS/cm indicates exceedance of chronic chloride standard of 230 mg/L

^B Chronic water quality standard

^C Calculated using 1/2 of the 0.25 mg/L detection limit of Total Kjeldahl Nitrogen (0.125 mg/L)

23-PMI: Pemigewasset River, Woodstock (Route 175 Bridge) - NHDES Trend Station

Date	Time of Sample	DO (mg/L)	DO (% sat.)	pH	Turbidity (NTUs)	Specific Conductance (µS/cm)	Water Temp. (°C)	<i>E. coli</i> (cts/100ml)	<i>E. coli</i> Geometric Mean	Chloride (mg/L)
Standard	NA	>5.0	>75% Daily Average	6.5-8.0	<10 NTU above background	835 µS/cm^A	NA	<406	<126	230^B
04/05/2021	09:30	13.65	100.3	5.63	0.18	55.6	2.4			12
06/14/2021	09:30	9.79	97.9	6.60	0.15	74.5	15.3	<10		
07/12/2021	09:40	8.63	89.9	6.48	0.31	84.2	17.3	20		11
08/09/2021	09:40	9.18	96.8	6.26	0.30	74.3	17.9	96	27	14

Date	Time of Sample	Total Phosphorus (mg/L)	Total Kjeldahl Nitrogen (mg/L)	Nitrite (NO ₂) + Nitrate(NO ₃) (mg/L)	Total Nitrogen (mg/L) ^C
Standard	NA	Narrative	Narrative	Narrative	Narrative
04/05/2021	09:30	0.007	ND	0.15	0.28
06/14/2021	09:30	0.020	ND	0.21	0.34
07/12/2021	09:40	0.023	ND	0.20	0.33
08/09/2021	09:40	0.017	ND	0.10	0.22

21-PMI: Pemigewasset River, Thornton (Memorial Bridge)

Date	Time of Sample	DO (mg/L)	DO (% sat.)	pH	Turbidity (NTUs)	Specific Conductance (µS/cm)	Water Temp. (°C)	<i>E. coli</i> (cts/100ml)	<i>E. coli</i> Geometric Mean	Chloride (mg/L)
Standard	NA	>5.0	>75% Daily Average	6.5-8.0	<10 NTU above background	835 µS/cm^A	NA	<406	<126	230^B
05/11/2021	09:10	11.06	99.6	5.61	0.07	49.7	9.3			
05/25/2021	09:00	10.28	99.1	5.39	0.17	59.6	13.7			
06/15/2021	09:10	7.80	83.1	5.72	0.35	87.7	17.2			
06/29/2021	09:40	6.73	79.6	6.02	0.91	84.4	23.1	109		16
07/27/2021	09:02	8.04	86.3	5.48		47.3	17.7	31		7
08/17/2021	09:10	8.70	92.2	5.74	0.21	82.6	18.3	10	32	20
08/31/2021	09:05	8.08	86.7	5.76	0.31	90.1	18.3			

Date	Time of Sample	Total Phosphorus (mg/L)	Total Kjeldahl Nitrogen (mg/L)	Nitrite (NO ₂) + Nitrate(NO ₃) (mg/L)	Total Nitrogen (mg/L) ^C
Standard	NA	Narrative	Narrative	Narrative	Narrative
06/29/2021	09:40	0.014	0.3	0.24	0.56
07/27/2021	09:02	0.011	ND	0.08	0.21
08/17/2021	09:10	0.012		0.16	

03G-MAD: Mad River, Thornton (Route 49 Bridge)

Date	Time of Sample	DO (mg/L)	DO (% sat.)	pH	Turbidity (NTUs)	Specific Conductance (µS/cm)	Water Temp. (°C)
Standard	NA	>5.0	>75% Daily Average	6.5-8.0	<10 NTU above background	835 µS/cm^A	NA
05/11/2021	09:35	12.21	104.2	5.75	0.12	47.2	8.1
05/25/2021	09:30	10.80	102.0	5.75	0.18	61.8	13.0
06/15/2021	09:30	9.30	97.2	5.75	0.38	75.0	15.8
06/29/2021	10:10	6.84	78.6	6.28	0.15	66.4	23.4
07/27/2021	09:25	8.33	86.2	5.73		42.5	16.1
08/31/2021	09:35	9.20	95.1	6.16	0.31	61.8	17.0

18-PMI: Pemigewasset River, Campton (Blair Bridge)

Date	Time of Sample	DO (mg/L)	DO (% sat.)	pH	Turbidity (NTUs)	Specific Conductance (µS/cm)	Water Temp. (°C)	<i>E. coli</i> (cts/100ml)	<i>E.coli</i> Geometric Mean	Chloride (mg/L)
Standard	NA	>5.0	>75% Daily Average	6.5-8.0	<10 NTU above background	835 µS/cm ^A	NA	<406	<126	230 ^B
05/11/2021	08:35	10.30	93.1	5.74	0.22	54.5	9.8			
05/25/2021	08:35	9.40	94.0	5.69	0.25	69.4	14.8			
06/15/2021	08:25	7.20	76.6	5.86	0.37	103.4	17.8			
06/29/2021	08:40	6.25	75.9	5.97	0.46	110.6	25.1	86		23
07/27/2021	08:35	7.66	84.6	5.54		41.9	18.4	63		8
08/17/2021	08:15	7.42	82.0	5.98	0.38	96.3	18.7	132	89	24
08/31/2021	08:40	8.08	87.4	6.06	0.23	103.1	18.8			

Date	Time of Sample	Total Phosphorus (mg/L)	Total Kjeldahl Nitrogen (mg/L)	Nitrite (NO ₂) + Nitrate(NO ₃) (mg/L)	Total Nitrogen (mg/L) ^C
Standard	NA	Narrative	Narrative	Narrative	Narrative
06/29/2021	08:40	0.009	ND	0.22	0.35
07/27/2021	08:35	0.008	ND	0.06	0.18
08/17/2021	08:15	0.010		0.15	

15-PMI: Pemigewasset River, Plymouth (Holderness Road Bridge)

Date	Time of Sample	DO (mg/L)	DO (% sat.)	pH	Turbidity (NTUs)	Specific Conductance (µS/cm)	Water Temp. (°C)
Standard	NA	>5.0	>75% Daily Average	6.5-8.0	<10 NTU above background	835 µS/cm ^A	NA
05/11/2021	08:05	10.02	85.8	5.66	0.42	59.2	10.4
05/25/2021	08:05	9.40	100.2	6.02	0.51	78.4	15.4
06/15/2021	08:03	7.80	83.0	6.07	0.47	107.6	17.9
06/29/2021	08:00	6.80	73.3	6.29	0.67	118.0	25.0
07/27/2021	08:05	8.00	86.3	5.82		50.0	19.3
08/31/2021	08:05	7.88	83.0	6.26	0.56	107.0	18.9

11A-PMI: Pemigewasset River, Bridgewater (Sahegenet Falls)

Date	Time of Sample	DO (mg/L)	DO (% sat.)	pH	Turbidity (NTUs)	Specific Conductance (µS/cm)	Water Temp. (°C)	<i>E. coli</i> (cts/100ml)	<i>E.coli</i> Geometric Mean	Chloride (mg/L)
Standard	NA	>5.0	>75% Daily Average	6.5-8.0	<10 NTU above background	835 µS/cm ^A	NA	<406	<126	230 ^B
05/12/2021	11:30	11.39	107.4	6.09	0.52	64.3	11.3			
05/25/2021	11:00	9.83	107.9	5.99	0.56	90.1	19.9			
06/16/2021	11:05	7.60	81.5	5.69	0.91	117.9	19.8			
06/29/2021	07:35							20		26
06/30/2021	11:05	7.01	87.2	6.30	0.74	124.5	26.5			
07/14/2021	11:45	7.75	84.0	5.80	1.68	74.5	19.1			
07/27/2021	07:15							189		7
07/28/2021	10:45	8.47	93.3	6.04		60.8	20.0			
08/17/2021	07:25							52	58	20
08/18/2021	11:00	8.38	96.0	6.11	0.59	111.9	22.1			
09/01/2021	10:45	7.59	84.5	6.34	0.80	115.2	20.6			

Date	Time of Sample	Total Phosphorus (mg/L)	Total Kjeldahl Nitrogen (mg/L)	Nitrite (NO ₂) + Nitrate(NO ₃) (mg/L)	Total Nitrogen (mg/L) ^C
Standard	NA	Narrative	Narrative	Narrative	Narrative
06/29/2021	07:35	0.013	ND	0.20	0.33
07/27/2021	07:15	0.012	ND	ND	
08/17/2021	07:25	0.014		0.17	

01-NFD: Newfound River, Bristol (Route 104 at Pleasant Street Bridge)

Date	Time of Sample	DO (mg/L)	DO (% sat.)	pH	Turbidity (NTUs)	Specific Conductance (µS/cm)	Water Temp. (°C)
Standard	NA	>5.0	>75% Daily Average	6.5-8.0	<10 NTU above background	835 µS/cm^A	NA
05/12/2021	08:50	11.36	99.8	6.10	0.54	47.2	9.6
05/25/2021	08:45	9.18	95.2	6.04	0.92	91.4	17.1
06/16/2021	08:45	7.73	80.2	5.73	0.61	75.1	17.1
06/30/2021	09:00	7.89	93.3	6.43	0.37	123.6	23.7
07/14/2021	08:45	7.65	83.4	5.98	0.29	53.9	21.0
07/28/2021	08:45	8.01	91.4	6.06		52.0	21.9
08/18/2021	08:50	8.06	93.2	5.93	0.34	71.9	22.5
09/01/2021	08:45	7.87	87.6	5.82	0.46	66.6	20.5

09A-PMI: Pemigewasset River, Bristol (Mooney-Clark)

Date	Time of Sample	DO (mg/L)	DO (% sat.)	pH	Turbidity (NTUs)	Specific Conductance (µS/cm)	Water Temp. (°C)	<i>E. coli</i> (cts/100ml)	<i>E. coli</i> Geometric Mean	Chloride (mg/L)
Standard	NA	>5.0	>75% Daily Average	6.5-8.0	<10 NTU above background	835 µS/cm^A	NA	<406	<126	230^B
05/12/2021	10:50	10.86	102.1	5.98	1.04	66.0	12.6			
05/25/2021	10:20	9.73	102.6	5.97	1.08	90.1	21.1			
06/16/2021	10:30	7.85	89.1	5.84	1.05	113.6	29.5			
06/29/2021	06:50							<10		25
06/30/2021	10:35	8.38	106.8	6.72	0.89	122.8	27.8			
07/14/2021	10:30	8.09	90.6	5.78	0.80	80.0	20.9			
07/27/2021	06:43							130		9
07/28/2021	09:55	8.14	92.5	5.80		55.0	21.7			
08/17/2021	07:00							<10	24	22
08/18/2021	10:30	9.17	111.4	6.68	1.07	95.2	25.2			
09/01/2021	10:15	8.03	92.3	6.36	0.81	110.3	22.2			

Date	Time of Sample	Total Phosphorus (mg/L)	Total Kjeldahl Nitrogen (mg/L)	Nitrite (NO ₂) + Nitrate (NO ₃) (mg/L)	Total Nitrogen (mg/L) ^C
Standard	NA	Narrative	Narrative	Narrative	Narrative
06/29/2021	06:50	0.016	0.3	0.10	0.35
07/27/2021	06:43	0.015	ND	0.06	0.19
08/17/2021	07:00	0.013		0.10	

07-PMI: Pemigewasset River, Bristol (Old Bristol Road Bridge off Central Street)

Date	Time of Sample	DO (mg/L)	DO (% sat.)	pH	Turbidity (NTUs)	Specific Conductance (µS/cm)	Water Temp. (°C)
Standard	NA	>5.0	>75% Daily Average	6.5-8.0	<10 NTU above background	835 µS/cm^A	NA
05/12/2021	09:25	10.58	96.9	6.20	0.98	60.8	11.4
05/25/2021	09:05	8.99	99.5	5.91	1.14	86.5	20.3
06/16/2021	09:15	6.20	70.3	5.72	1.73	107.8	21.5
06/30/2021	09:30	7.89	93.3	6.31	1.38	123.6	23.7
07/14/2021	09:15	7.92	88.8	5.85	0.94	85.8	21.0
07/28/2021	08:55	8.30	92.7	6.06		61.7	20.8
08/18/2021	09:15	7.34	87.9	6.25	0.79	88.7	24.4
09/01/2021	09:15	7.26	84.9	6.06	1.05	101.7	23.2

00M-SMT: Smith River, Bristol (Bridge Downstream of Profile Falls)

Date	Time of Sample	DO (mg/L)	DO (% sat.)	pH	Turbidity (NTUs)	Specific Conductance (uS/cm)	Water Temp. (°C)
Standard	NA	>5.0	>75% Daily Average	6.5-8.0	<10 NTU above background	835 µS/cm^A	NA
05/12/2021	08:25	10.90	96.7	6.70	1.02	60.9	9.7
05/25/2021	08:15	9.52	101.1	6.72	0.98	96.0	18.2
06/16/2021	08:10	8.74	90.9	6.43	0.92	100.1	16.9
06/30/2021	08:30	8.04	96.2	6.75	0.75	120.0	24.4
07/14/2021	08:07	8.61	84.6	6.37	1.07	54.8	18.1
07/28/2021	08:10	8.90	95.1	6.45		69.6	18.6
08/18/2021	08:20	8.96	98.7	6.94	1.21	107.1	20.1
09/01/2021	08:15	9.12	96.5	5.97	0.94	95.6	18.1

