

New Hampshire Volunteer River Assessment Program  
2022 Pemigewasset River Watershed Data

NEW HAMPSHIRE DEPARTMENT OF ENVIRONMENTAL SERVICES



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

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

<sup>B</sup> Chronic water quality standard

<sup>C</sup> 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	Specific Conductance (µS/cm)	Water Temp. (°C)	Turbidity (NTUs)	<i>E. coli</i> (cts/100ml)	<i>E. coli</i> Geometric Mean	Chloride (mg/L)
<b>Standard</b>	<b>NA</b>	<b>&gt;5.0</b>	<b>&gt;75% Daily Average</b>	<b>6.5-8.0</b>	<b>835 µS/cm<sup>A</sup></b>	<b>NA</b>	<b>&lt;10 NTU above background</b>	<b>&lt;406</b>	<b>&lt;126</b>	<b>230<sup>B</sup></b>
06/13/2022	09:40	10.44	103.7	6.38	53.1	15.5	0.11	<10	-	8
07/11/2022	09:30	9.86	99.3	6.40	87.0	16.5	0.22	<10	-	14
08/08/2022	09:25	8.50	97.3	6.42	79.5	22.0	0.46	31	9	13
10/17/2022	00:00	11.60	98.2	5.96	30.2	7.9	0.16	-	-	5

Date	Time of Sample	Total Phosphorus (mg/L)	Total Kjeldahl Nitrogen (mg/L)	Nitrite (NO <sub>2</sub> ) + Nitrate (NO <sub>3</sub> ) (mg/L)	Total Nitrogen (mg/L) <sup>C</sup>
<b>Standard</b>	<b>NA</b>	<b>Narrative</b>	<b>Narrative</b>	<b>Narrative</b>	<b>Narrative</b>
06/13/2022	09:40	0.011	ND	0.12	0.25 <sup>C</sup>
07/11/2022	09:30	0.022	ND	0.24	0.37 <sup>C</sup>
08/08/2022	09:25	0.027	ND	0.22	0.35 <sup>C</sup>
10/17/2022	09:30	0.010	ND	0.07	0.19 <sup>C</sup>

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

Date	Time of Sample	DO (mg/L)	DO (% sat.)	pH	Specific Conductance (µS/cm)	Water Temp. (°C)	Turbidity (NTUs)	<i>E. coli</i> (cts/100ml)	<i>E. coli</i> Geometric Mean	Chloride (mg/L)
<b>Standard</b>	<b>NA</b>	<b>&gt;5.0</b>	<b>&gt;75% Daily Average</b>	<b>6.5-8.0</b>	<b>835 µS/cm<sup>A</sup></b>	<b>NA</b>	<b>&lt;10 NTU above background</b>	<b>&lt;406</b>	<b>&lt;126</b>	<b>230<sup>B</sup></b>
05/10/2022	09:20	12.20	103.4	5.13	42	8.2	0.19	-	-	-
05/24/2022	09:10	10.36	93.5	5.23	48	11.3	0.12	-	-	-
06/14/2022	08:50	8.51	86.1	5.52	59	15.9	0.43	-	-	-
06/29/2022	08:45	8.91	94.1	5.43	75	17.7	0.12	<10	-	14
08/02/2022	09:00	7.70	87.8	5.70	91	21.1	0.30	10	-	16
08/16/2022	07:00	8.60	98.6	5.77	105	20.5	0.68	<10	6	23

Date	Time of Sample	Total Phosphorus (mg/L)	Total Kjeldahl Nitrogen (mg/L)	Nitrite (NO <sub>2</sub> ) + Nitrate (NO <sub>3</sub> ) (mg/L)	Total Nitrogen (mg/L) <sup>C</sup>
<b>Standard</b>	<b>NA</b>	<b>Narrative</b>	<b>Narrative</b>	<b>Narrative</b>	<b>Narrative</b>
06/26/2022	08:45	0.010	ND	0.17	0.30 <sup>C</sup>
08/02/2022	09:00	0.011	-	0.14	-
08/16/2022	07:00	0.013	-	0.10	-

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

Date	Time of Sample	DO (mg/L)	DO (% sat.)	pH	Specific Conductance (µS/cm)	Water Temp. (°C)	Turbidity (NTUs)
<b>Standard</b>	<b>NA</b>	<b>&gt;5.0</b>	<b>&gt;75% Daily Average</b>	<b>6.5-8.0</b>	<b>835 µS/cm<sup>A</sup></b>	<b>NA</b>	<b>&lt;10 NTU above background</b>
05/10/2022	10:04	12.10	104.8	5.40	44	8.0	0.10
05/24/2022	09:40	11.03	99.1	5.32	44	10.5	0.07
06/14/2022	09:15	10.01	98.2	5.89	54	14.5	0.16
06/29/2022	09:25	10.09	104.7	5.75	68	16.3	0.07
08/02/2022	09:30	8.90	98.1	6.10	79	20.0	0.00
08/16/2022	09:45	9.10	102.0	6.38	81	18.0	0.02

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

Date	Time of Sample	DO (mg/L)	DO (% sat.)	pH	Specific Conductance (µS/cm)	Water Temp. (°C)	Turbidity (NTUs)	<i>E. coli</i> (cts/100ml)	<i>E. coli</i> Geometric Mean	Chloride (mg/L)
<b>Standard</b>	<b>NA</b>	<b>&gt;5.0</b>	<b>&gt;75% Daily Average</b>	<b>6.5-8.0</b>	<b>835 µS/cm<sup>A</sup></b>	<b>NA</b>	<b>&lt;10 NTU above background</b>	<b>&lt;406</b>	<b>&lt;126</b>	<b>230<sup>B</sup></b>
05/10/2022	08:49	11.20	97.1	5.33	50	9.7	0.13	-	-	-
05/24/2022	08:35	9.04	87.4	5.23	55	13.0	0.21	-	-	-
06/14/2022	08:15	8.30	86.6	5.50	68	17.4	0.56	-	-	-
06/29/2022	08:15	8.27	92.2	5.66	87	18.6	0.35	<10	-	18
08/02/2022	08:30	7.80	89.3	5.90	107	22.0	0.40	63	-	17
08/16/2022	08:30	7.48	83.0	6.01	121	19.5	0.43	73	28	24

Date	Time of Sample	Total Phosphorus (mg/L)	Total Kjeldahl Nitrogen (mg/L)	Nitrite (NO <sub>2</sub> ) + Nitrate (NO <sub>3</sub> ) (mg/L)	Total Nitrogen (mg/L) <sup>C</sup>
<b>Standard</b>	<b>NA</b>	<b>Narrative</b>	<b>Narrative</b>	<b>Narrative</b>	<b>Narrative</b>
06/29/2022	08:15	0.007	ND	0.19	0.32 <sup>C</sup>
08/02/2022	08:30	0.008	-	0.12	-
08/16/2022	08:30	0.007	-	0.09	-

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

Date	Time of Sample	DO (mg/L)	DO (% sat.)	pH	Specific Conductance (µS/cm)	Water Temp. (°C)	Turbidity (NTUs)
<b>Standard</b>	<b>NA</b>	<b>&gt;5.0</b>	<b>&gt;75% Daily Average</b>	<b>6.5-8.0</b>	<b>835 µS/cm<sup>A</sup></b>	<b>NA</b>	<b>&lt;10 NTU above background</b>
05/10/2022	08:00	10.80	95.2	5.52	61	10.0	0.32
05/24/2022	08:00	10.01	97.7	5.52	51	13.9	0.68
06/14/2022	07:45	8.60	88.4	5.68	77	17.9	0.47
06/29/2022	07:45	8.27	89.7	5.90	93	19.0	0.48
08/02/2022	08:00	7.30	83.0	6.00	115	22.2	0.68
08/16/2022	08:00	8.60	89.6	6.05	128	19.8	0.56

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

Date	Time of Sample	DO (mg/L)	DO (% sat.)	pH	Specific Conductance (µS/cm)	Water Temp. (°C)	Turbidity (NTUs)	<i>E. coli</i> (cts/100ml)	<i>E. coli</i> Geometric Mean	Chloride (mg/L)
<b>Standard</b>	<b>NA</b>	<b>&gt;5.0</b>	<b>&gt;75% Daily Average</b>	<b>6.5-8.0</b>	<b>835 µS/cm<sup>A</sup></b>	<b>NA</b>	<b>&lt;10 NTU above background</b>	<b>&lt;406</b>	<b>&lt;126</b>	<b>230<sup>B</sup></b>
05/12/2022	11:45	11.32	110.9	5.71	61	14.4	0.43	-	-	-
05/25/2022	11:15	9.72	104.6	5.72	69	15.6	0.57	-	-	-
06/15/2022	11:15	8.56	92.8	5.74	84	19.3	0.60	-	-	-
06/28/2022	11:15	8.12	92.1	5.72	105	21.7	0.72	-	-	-
06/29/2022	07:10	-	-	-	-	-	-	10	-	20
07/13/2022	11:10	8.90	95.4	5.92	129	22.9	0.75	-	-	-
07/27/2022	11:30	8.07	93.0	5.80	93	22.4	0.62	-	-	-
08/02/2022	07:20	-	-	-	-	-	-	20	-	22
08/16/2022	07:30	-	-	-	-	-	-	10	13	28
08/18/2022	11:30	8.87	97.9	6.12	143	20.2	0.68	-	-	-
09/01/2022	11:05	7.60	87.2	5.94	121	22.2	0.62	-	-	-

Date	Time of Sample	Total Phosphorus (mg/L)	Total Kjeldahl Nitrogen (mg/L)	Nitrite (NO <sub>2</sub> ) + Nitrate (NO <sub>3</sub> ) (mg/L)	Total Nitrogen (mg/L) <sup>C</sup>
<b>Standard</b>	<b>NA</b>	<b>Narrative</b>	<b>Narrative</b>	<b>Narrative</b>	<b>Narrative</b>
06/29/2022	07:10	0.012	ND	0.20	0.33 <sup>C</sup>
08/02/2022	07:20	0.015	-	0.10	-
08/16/2022	07:30	0.012	-	ND	-

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

Date	Time of Sample	DO (mg/L)	DO (% sat.)	pH	Specific Conductance (µS/cm)	Water Temp. (°C)	Turbidity (NTUs)
<b>Standard</b>	<b>NA</b>	<b>&gt;5.0</b>	<b>&gt;75% Daily Average</b>	<b>6.5-8.0</b>	<b>835 µS/cm<sup>A</sup></b>	<b>NA</b>	<b>&lt;10 NTU above background</b>
05/12/2022	08:50	11.38	99.6	5.64	64	9.5	0.38
05/25/2022	09:12	9.14	90.4	5.79	50	14.8	0.42
06/15/2022	08:45	8.75	99.4	5.78	55	19.0	0.31
06/28/2022	08:55	8.58	93.8	-	60	19.7	0.39
07/13/2022	08:50	7.90	86.3	5.78	69	20.9	0.34
07/27/2022	08:50	7.90	88.8	6.12	69	INVALID	0.28
08/18/2022	09:15	8.15	89.4	6.01	72	19.8	0.24
09/01/2022	08:45	8.19	89.3	5.78	73	19.6	0.20

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

Date	Time of Sample	DO (mg/L)	DO (% sat.)	pH	Specific Conductance (µS/cm)	Water Temp. (°C)	Turbidity (NTUs)	<i>E. coli</i> (cts/100ml)	<i>E. coli</i> Geometric Mean	Chloride (mg/L)
<b>Standard</b>	<b>NA</b>	<b>&gt;5.0</b>	<b>&gt;75% Daily Average</b>	<b>6.5-8.0</b>	<b>835 µS/cm<sup>A</sup></b>	<b>NA</b>	<b>&lt;10 NTU above background</b>	<b>&lt;406</b>	<b>&lt;126</b>	<b>230<sup>B</sup></b>
05/12/2022	10:50	9.57	101.4	5.74	65	16.1	0.91	-	-	-
05/25/2022	10:30	10.10	105.0	5.71	69	17.9	0.67	-	-	-
06/15/2022	10:30	7.94	90.3	INVALID	81	21.5	0.79	-	-	-
06/28/2022	10:30	8.10	95.9	5.96	97	23.8	0.78	-	-	-
06/29/2022	06:30	-	-	-	-	-	-	5	-	19
07/13/2022	10:40	8.79	105.0	5.89	110	24.6	1.02	-	-	-
07/27/2022	10:55	7.69	93.8	5.86	106	25.5	0.58	-	-	-
08/02/2022	06:45	-	-	-	-	-	-	10	-	17
08/16/2022	07:00	-	-	-	-	-	-	10	8	26
08/18/2022	11:00	8.02	93.8	6.03	132	23.1	0.86	-	-	-
09/01/2022	10:30	8.06	96.8	6.11	102	24.6	0.75	-	-	-

Date	Time of Sample	Total Phosphorus (mg/L)	Total Kjeldahl Nitrogen (mg/L)	Nitrite (NO <sub>2</sub> ) + Nitrate(NO <sub>3</sub> ) (mg/L)	Total Nitrogen (mg/L) <sup>C</sup>
<b>Standard</b>	<b>NA</b>	<b>Narrative</b>	<b>Narrative</b>	<b>Narrative</b>	<b>Narrative</b>
06/29/2022	06:30	0.013	ND	0.14	0.27 <sup>C</sup>
08/02/2022	06:45	0.019	-	0.05	-
08/16/2022	07:00	0.012	-	ND	-

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

Date	Time of Sample	DO (mg/L)	DO (% sat.)	pH	Specific Conductance (µS/cm)	Water Temp. (°C)	Turbidity (NTUs)
<b>Standard</b>	<b>NA</b>	<b>&gt;5.0</b>	<b>&gt;75% Daily Average</b>	<b>6.5-8.0</b>	<b>835 µS/cm<sup>A</sup></b>	<b>NA</b>	<b>&lt;10 NTU above background</b>
05/12/2022	09:45	10.45	99.5	5.58	66	13.1	0.78
05/25/2022	09:30	7.98	83.9	5.65	62	17.8	0.87
06/15/2022	09:15	8.76	94.0	5.67	64	18.8	0.93
06/28/2022	09:15	8.53	95.0	5.96	95	20.5	0.88
07/13/2022	09:12	-	-	6.01	-	-	0.59
07/27/2022	09:25	6.78	81.7	5.88	91	24.8	0.88
08/18/2022	09:35	7.53	88.6	6.16	128	23.5	0.86
09/01/2022	09:07	7.60	88.4	6.40	126	22.9	0.95

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

Date	Time of Sample	DO (mg/L)	DO (% sat.)	pH	Specific Conductance (uS/cm)	Water Temp. (°C)	Turbidity (NTUs)
<b>Standard</b>	<b>NA</b>	<b>&gt;5.0</b>	<b>&gt;75% Daily Average</b>	<b>6.5-8.0</b>	<b>835 µS/cm<sup>A</sup></b>	<b>NA</b>	<b>&lt;10 NTU above background</b>
05/12/2022	08:10	10.98	101.0	6.06	68	11.6	0.71
05/25/2022	08:24	9.20	89.3	6.13	71	14.1	0.77
06/15/2022	08:20	9.67	99.9	6.33	79	16.9	0.71
06/28/2022	08:20	9.88	105.4	-	93	18.5	0.48
07/13/2022	08:17	9.10	99.9	6.66	115	20.4	1.01
07/27/2022	08:25	9.28	99.8	6.67	89	18.8	1.64
08/18/2022	08:45	9.12	97.2	6.69	121	18.4	0.62
09/01/2022	08:20	8.78	95.3	6.65	135	19.3	0.78



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