

New Hampshire Volunteer River Assessment Program
2020 Pemigewasset River Watershed Data

NEW HAMPSHIRE DEPARTMENT OF ENVIRONMENTAL SERVICES



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| | 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

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) | Chloride (mg/L) |
|-----------------|----------------|----------------|------------------------------|----------------|------------------------------------|------------------------------|------------------|------------------------|
| Standard | NA | >5.0 | >75% Daily Average | 6.5-8.0 | <10 NTU above background | 835 µS/cm^A | NA | 230^B |
| 06/15/2020 | 10:15 | 11.06 | 105.4 | 5.72 | 0.14 | 55.9 | 13.2 | 11 |
| 07/13/2020 | 10:15 | 8.89 | 97.6 | 6.10 | 0.15 | 38.1 | 19.3 | 6 |
| 08/10/2020 | 10:15 | 9.53 | 103.7 | 6.44 | 0.09 | 61.2 | 19.4 | 11 |

| 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 |
| 6/15/2020 | 10:15 | 0.006 | 0.25 | 0.15 | 0.40 ^C |
| 7/13/2020 | 10:15 | 0.012 | ND | 0.09 | 0.21 ^C |
| 8/10/2020 | 10:15 | 0.073 | ND | 0.19 | 0.32 ^C |

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) | Chloride (mg/L) |
|-----------------|----------------|----------------|------------------------------|----------------|------------------------------------|------------------------------|------------------|------------------------|
| Standard | NA | >5.0 | >75% Daily Average | 6.5-8.0 | <10 NTU above background | 835 µS/cm^A | NA | 230^B |
| 06/23/2020 | 9:30 | 6.84 | 88.0 | 5.95 | 0.40 | 70.0 | 22.4 | |
| 07/17/2020 | 9:15 | 8.41 | 88.4 | 5.76 | 0.34 | 40.2 | 17.0 | 9 |
| 07/28/2020 | 9:08 | 7.48 | 84.9 | 5.77 | 0.37 | 68.9 | 22.8 | |
| 08/11/2020 | 9:25 | 6.21 | 75.2 | 5.82 | 0.44 | 75.0 | 22.3 | 14 |
| 08/25/2020 | 9:15 | 7.62 | 85.3 | 6.04 | 0.72 | 81.9 | 21.5 | 19 |
| 09/08/2020 | 9:04 | 8.10 | 86.0 | 5.73 | 0.64 | 80.2 | 17.7 | |

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) | Chloride (mg/L) |
|-----------------|----------------|----------------|------------------------------|----------------|------------------------------------|------------------------------|------------------|------------------------|
| Standard | NA | >5.0 | >75% Daily Average | 6.5-8.0 | <10 NTU above background | 835 µS/cm^A | NA | 230^B |
| 06/23/2020 | 10:00 | 7.91 | 93.0 | 6.11 | 0.19 | 63.0 | 21.5 | |
| 07/17/2020 | 9:45 | 9.47 | 92.5 | 6.06 | 0.07 | 39.2 | 15.2 | 6 |
| 07/28/2020 | 10:08 | 7.61 | 86.2 | 5.97 | 0.18 | 48.8 | 20.7 | |
| 08/11/2020 | 9:45 | 8.63 | 93.1 | 6.19 | 0.12 | 73.6 | 20.8 | |
| 08/25/2020 | 9:35 | 9.16 | 98.2 | 6.25 | 0.11 | 62.4 | 19.3 | |
| 09/08/2020 | 9:47 | 9.50 | 99.0 | 6.19 | 0.25 | 58.3 | 15.8 | |

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) | Chloride (mg/L) |
|-----------------|----------------|----------------|------------------------------|----------------|------------------------------------|------------------------------|------------------|------------------------|
| Standard | NA | >5.0 | >75% Daily Average | 6.5-8.0 | <10 NTU above background | 835 µS/cm^A | NA | 230^B |
| 06/23/2020 | 8:45 | 6.92 | 84.0 | 6.03 | 0.44 | 89.0 | 23.4 | |
| 07/17/2020 | 8:50 | 8.03 | 76.8 | 5.83 | 0.41 | 46.7 | 18.1 | |
| 07/28/2020 | 8:40 | 6.99 | 78.2 | 5.76 | 0.56 | 81.8 | 24.1 | |
| 08/11/2020 | 8:50 | 7.20 | 82.1 | 5.95 | 0.48 | 83.5 | 22.9 | 17 |
| 08/25/2020 | 8:40 | 7.61 | 86.0 | 5.98 | 0.73 | 107.5 | 21.5 | 23 |
| 09/08/2020 | 8:37 | 8.20 | 86.0 | 5.74 | 0.54 | 109.3 | 17.4 | |

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 |
| 06/23/2020 | 8:05 | 7.31 | 84.0 | 6.28 | 0.49 | 95.8 | 23.2 |
| 07/17/2020 | 8:05 | 7.35 | 79.7 | 6.02 | 0.90 | 59.5 | 18.8 |
| 07/28/2020 | 8:05 | 7.22 | 87.4 | 6.33 | 0.73 | 88.2 | 24.4 |
| 08/11/2020 | 8:15 | 6.90 | 80.2 | 6.11 | 0.68 | 98.6 | 23.1 |
| 08/25/2020 | 8:10 | 6.52 | 74.7 | 6.28 | 0.68 | 115.6 | 22.1 |
| 09/08/2020 | 8:08 | 8.22 | 87.2 | 6.22 | 0.78 | 117.5 | 17.9 |

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) | Chloride (mg/L) |
|-----------------|----------------|----------------|------------------------------|----------------|------------------------------------|------------------------------|------------------|------------------------|
| Standard | NA | >5.0 | >75% Daily Average | 6.5-8.0 | <10 NTU above background | 835 µS/cm^A | NA | 230^B |
| 06/24/2020 | 10:35 | 6.71 | 80.7 | 5.95 | 0.71 | 105.0 | 24.6 | |
| 07/15/2020 | 11:50 | 8.78 | 96.0 | 5.76 | 2.40 | 36.4 | 19.7 | 6 |
| 07/29/2020 | 11:00 | 7.61 | 91.2 | 6.22 | 1.01 | 99.5 | 24.4 | |
| 08/12/2020 | 11:10 | 7.63 | 94.2 | 6.26 | 0.87 | 111.3 | 26.1 | 21 |
| 08/25/2020 | 11:10 | 8.75 | 98.3 | 6.47 | 1.14 | 126.8 | 21.0 | 26 |
| 09/09/2020 | 10:50 | 8.60 | 101.6 | 6.51 | 0.94 | 131.0 | 22.8 | |

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 |
| 06/24/2020 | 8:52 | 8.16 | 92.1 | 5.97 | 0.32 | 61.1 | 21.3 |
| 07/15/2020 | 8:50 | 7.59 | 88.8 | 6.15 | 0.51 | 48.1 | 23.2 |
| 07/29/2020 | 8:45 | 7.34 | 86.0 | 6.09 | 0.48 | 56.4 | 23.3 |
| 08/12/2020 | 8:55 | 7.16 | 85.3 | 6.02 | 0.24 | 56.2 | 24.1 |
| 08/25/2020 | 8:50 | 7.84 | 84.9 | 5.98 | 0.21 | 59.5 | 19.2 |
| 09/09/2020 | 8:50 | 8.60 | 94.0 | 6.15 | 0.25 | 59.1 | 19.7 |

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) | Chloride (mg/L) |
|-----------------|----------------|----------------|------------------------------|----------------|------------------------------------|------------------------------|------------------|------------------------|
| Standard | NA | >5.0 | >75% Daily Average | 6.5-8.0 | <10 NTU above background | 835 µS/cm^A | NA | 230^B |
| 06/24/2020 | 9:45 | 7.80 | 96.3 | 6.08 | 1.23 | 113.9 | 26.3 | |
| 07/15/2020 | 11:00 | 8.17 | 92.1 | 5.80 | 3.41 | 46.7 | 21.3 | 8 |
| 07/29/2020 | 10:25 | 7.75 | 98.3 | 6.33 | 0.99 | 84.5 | 27.6 | |
| 08/12/2020 | 10:30 | 7.75 | 98.4 | 6.27 | 1.17 | 94.4 | 27.7 | 18 |
| 08/25/2020 | 10:25 | 8.54 | 99.8 | 6.38 | 1.17 | 128.1 | 23.1 | 25 |
| 09/09/2020 | 10:15 | 8.40 | 99.5 | 6.60 | 1.40 | 127.0 | 23.7 | |

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 |
| 06/24/2020 | 9:15 | 8.62 | 98.3 | 6.12 | 1.19 | 100.9 | 21.8 |
| 07/15/2020 | 9:14 | 7.55 | 89.4 | 6.11 | 1.61 | 71.7 | 23.8 |
| 07/29/2020 | 9:10 | 7.44 | 89.1 | 6.07 | 0.85 | 87.8 | 24.4 |
| 08/12/2020 | 9:20 | 7.73 | 91.1 | 6.11 | 1.05 | 93.9 | 23.6 |
| 08/25/2020 | 9:15 | 7.50 | 84.9 | 6.15 | 1.05 | 117.9 | 21.4 |
| 09/09/2020 | 9:15 | 8.09 | 90.0 | 6.25 | 1.01 | 126.5 | 20.5 |

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

| 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 |
| 06/24/2020 | 8:15 | 8.10 | 95.0 | 6.89 | 0.98 | 128.2 | 23.1 |
| 07/15/2020 | 8:15 | 7.85 | 87.1 | 6.78 | 1.50 | 104.2 | 20.4 |
| 07/29/2020 | 8:10 | 8.24 | 94.7 | 6.56 | 0.98 | 127.6 | 22.3 |
| 08/12/2020 | 8:15 | 7.96 | 93.7 | 6.53 | 0.58 | 140.8 | 23.5 |
| 08/25/2020 | 8:15 | 8.32 | 87.9 | 6.54 | 0.47 | 147.0 | 18.0 |
| 09/09/2020 | 8:13 | 8.90 | 94.0 | 6.70 | 0.45 | 129.7 | 18.3 |

