

New Hampshire Volunteer River Assessment Program
2021 Isinglass 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 $\mu\text{S}/\text{cm}$ indicate exceedance of chronic chloride standard of 230 mg/L

^B Chronic water quality standard

^C Calculated using 1/2 of the 0.050 mg/L detection limit of Nitrate+Nitrite (0.025 mg/L)

11-ISG: Isinglass River, Strafford (Route 202A Bridge)

| Date | Time of Sample | DO (mg/L) | DO (% sat.) | pH | Turbidity (NTUs) | Specific Conductance ($\mu\text{S}/\text{cm}$) | Water Temp. ($^{\circ}\text{C}$) | Chloride (mg/L) | Total Phosphous |
|------------|----------------|-----------|--------------------|---------|--------------------------|--|------------------------------------|------------------------|-----------------|
| Standard | NA | >5.0 | >75% Daily Average | 6.5-8.0 | <10 NTU above background | 835 $\mu\text{S}/\text{cm}^{\text{A}}$ | NA | <230 mg/L ^B | Narrative |
| 05/23/2021 | 10:51 | 7.76 | 90.7 | 6.43 | 0.81 | 119 | 22.7 | | |
| 07/05/2021 | 10:14 | 8.96 | 93.7 | 6.06 | 0.64 | | 17.4 | 16 | 0.016 |
| 08/08/2021 | 12:13 | 6.89 | 82.6 | 5.97 | 0.38 | 84 | 24.6 | 18 | 0.012 |
| 09/12/2021 | 11:35 | 8.31 | 94.1 | 5.92 | 0.96 | 74 | 21.8 | 15 | 0.009 |

08-ISG: Isinglass River, Barrington (Route 126 Bridge)

| Date | Time of Sample | DO (mg/L) | DO (% sat.) | pH | Turbidity (NTUs) | Specific Conductance ($\mu\text{S}/\text{cm}$) | Water Temp. ($^{\circ}\text{C}$) |
|------------|----------------|-----------|--------------------|---------|--------------------------|--|------------------------------------|
| Standard | NA | >5.0 | >75% Daily Average | 6.5-8.0 | <10 NTU above background | 835 $\mu\text{S}/\text{cm}^{\text{A}}$ | NA |
| 05/23/2021 | 10:23 | 7.03 | 80.4 | 5.72 | 0.99 | 114 | 21.5 |
| 07/05/2021 | 10:46 | 7.71 | 79.3 | 5.61 | 2.00 | 100 | 16.9 |
| 08/08/2021 | 11:46 | 6.86 | 79.2 | 5.51 | 1.18 | 82 | 22.8 |

07T-ISG: Isinglass River, Barrington (Route 126) - NHDES Trend Site

| Date | Time of Sample | DO (mg/L) | DO (% sat.) | pH | Turbidity (NTUs) | Specific Conductance ($\mu\text{S}/\text{cm}$) | Water Temp. ($^{\circ}\text{C}$) | Chloride (mg/L) |
|------------|----------------|-----------|--------------------|---------|--------------------------|--|------------------------------------|------------------------|
| Standard | NA | >5.0 | >75% Daily Average | 6.5-8.0 | <10 NTU above background | 835 $\mu\text{S}/\text{cm}^{\text{A}}$ | NA | <230 mg/L ^B |
| 04/08/2021 | 8:30 | 10.68 | 94.4 | 5.39 | 0.17 | 81 | 9.8 | 20 |
| 06/15/2021 | 9:15 | 6.05 | 63.6 | 6.25 | 1.43 | 103 | 18.9 | 22 |
| 07/22/2021 | 9:00 | 6.27 | 70.0 | 5.65 | 0.73 | 89 | 20.7 | 16 |
| 08/12/2021 | 9:00 | 6.91 | 82.3 | 5.87 | 1.34 | 79 | 24.2 | 19 |

| Date | Time of Sample | Total Phosphous | Total Kjehldahl Nitrogen (TKN) (mg/L) | Nitrite (NO_2) + Nitrate (NO_3) (mg/L) | Total Nitrogen (mg/L) | E. coli (MPN/100mL) | E.coli Geometric Mean |
|------------|----------------|-----------------|---------------------------------------|--|-----------------------|---------------------|-----------------------|
| Standard | NA | Narrative | Narrative | Narrative | Narrative | <406 | <126 |
| 04/08/2021 | 8:30 | 0.011 | ND | ND | | | |
| 06/15/2021 | 9:15 | 0.029 | 0.450 | ND | 0.475 ^C | 31 | |
| 07/22/2021 | 9:00 | 0.020 | 0.410 | ND | 0.435 ^C | 52 | |
| 08/12/2021 | 9:00 | 0.032 | 0.510 | ND | 0.535 ^C | 134 | 60 |

07-ISG: Isinglass River, Barrington (Route 202 Bridge)

| Date | Time of Sample | DO (mg/L) | DO (% sat.) | pH | Turbidity (NTUs) | Specific Conductance ($\mu\text{S}/\text{cm}$) | Water Temp. ($^{\circ}\text{C}$) |
|------------|----------------|-----------|--------------------|---------|--------------------------|--|------------------------------------|
| Standard | NA | >5.0 | >75% Daily Average | 6.5-8.0 | <10 NTU above background | 835 $\mu\text{S}/\text{cm}^{\text{A}}$ | NA |
| 05/23/2021 | 10:05 | 8.66 | 98.3 | 6.20 | 0.65 | 118 | 21.6 |
| 07/05/2021 | 10:30 | 8.74 | 91.1 | 6.04 | 2.04 | 102 | 17.4 |
| 08/08/2021 | 11:28 | 7.97 | 92.6 | 5.85 | 0.92 | 85 | 22.9 |
| 09/12/2021 | 10:32 | 8.70 | 92.5 | 5.77 | 0.77 | 77 | 18.5 |

04-ISG: Isinglass River, Barrington (Green Hill Road Bridge)

| Date | Time of Sample | DO (mg/L) | DO (% sat.) | pH | Turbidity (NTUs) | Specific Conductance ($\mu\text{S}/\text{cm}$) | Water Temp. ($^{\circ}\text{C}$) | Chloride (mg/L) | Total Phosphorus |
|------------|----------------|-----------|--------------------|---------|--------------------------|--|------------------------------------|------------------------|------------------|
| Standard | NA | >5.0 | >75% Daily Average | 6.5-8.0 | <10 NTU above background | 835 $\mu\text{S}/\text{cm}^{\text{A}}$ | NA | <230 mg/L ^B | Narrative |
| 05/23/2021 | 9:31 | 8.15 | 93.2 | 6.28 | 0.56 | 120 | 21.9 | | |
| 07/05/2021 | 10:14 | 9.08 | 94.8 | 6.15 | 2.06 | 111 | 17.4 | 22 | 0.029 |
| 08/08/2021 | 11:10 | 8.02 | 94.5 | 5.86 | 1.31 | 93 | 23.4 | 23 | 0.023 |
| 09/12/2021 | 10:11 | 8.73 | 92.9 | 5.84 | 0.74 | 81 | 18.3 | 18 | 0.017 |

03-ISG: Isinglass River, Rochester (Route 125 Bridge)

| Date | Time of Sample | DO (mg/L) | DO (% sat.) | pH | Turbidity (NTUs) | Specific Conductance ($\mu\text{S}/\text{cm}$) | Water Temp. ($^{\circ}\text{C}$) | Chloride (mg/L) | Total Phosphorus |
|------------|----------------|-----------|--------------------|---------|--------------------------|--|------------------------------------|------------------------|------------------|
| Standard | NA | >5.0 | >75% Daily Average | 6.5-8.0 | <10 NTU above background | 835 $\mu\text{S}/\text{cm}^{\text{A}}$ | NA | <230 mg/L ^B | Narrative |
| 05/23/2021 | 9:12 | 7.49 | 85.6 | 5.97 | 0.96 | 135 | 21.7 | | |
| 07/05/2021 | 9:55 | 8.85 | 94.8 | 6.13 | 2.63 | 132 | 17.4 | 30 | 0.030 |
| 08/08/2021 | 10:57 | 7.25 | 93.8 | 5.89 | 1.17 | 105 | 22.9 | 25 | 0.025 |
| 09/12/2021 | 9:57 | 8.66 | 91.8 | 5.78 | 0.88 | 86 | 18.1 | 22 | 0.020 |

02-ISG: Isinglass River, Rochester (Rochester Neck Road Bridge) - NHDES Trend Site

| Date | Time of Sample | DO (mg/L) | DO (% sat.) | pH | Turbidity (NTUs) | Specific Conductance ($\mu\text{S}/\text{cm}$) | Water Temp. ($^{\circ}\text{C}$) | Chloride (mg/L) |
|-----------------|----------------|----------------|------------------------------|----------------|------------------------------------|--|------------------------------------|---------------------------------|
| Standard | NA | >5.0 | >75% Daily Average | 6.5-8.0 | <10 NTU above background | 835 $\mu\text{S}/\text{cm}^{\text{A}}$ | NA | <230 mg/L^B |
| 02/18/2021 | 11:25 | 14.50 | 100.1 | 6.22 | 1.37 | 127 | 0.1 | 26 |
| 04/08/2021 | 9:30 | 11.30 | 100.3 | 5.94 | 0.40 | 108 | 10.1 | 29 |
| 05/23/2021 | 8:45 | 7.92 | 87.6 | 5.90 | 1.41 | 149 | 20.4 | |
| 06/15/2021 | 10:30 | 7.44 | 80.1 | 6.43 | 3.59 | 162 | 18.7 | |
| 07/05/2021 | 9:35 | 9.80 | 102.3 | 6.19 | 2.44 | 147 | 17.3 | |
| 07/22/2021 | 10:00 | 8.64 | 97.3 | 6.05 | 1.6 | 101 | 21 | 21 |
| 08/08/2021 | 10:33 | 8.30 | 99.5 | 6.09 | 1.4 | 111 | 23 | |
| 08/12/2021 | 10:10 | 8.04 | 94.7 | 6.23 | 2.0 | 112 | 24 | 28 |
| 09/12/2021 | 9:31 | 9.55 | 101.5 | 5.83 | 1.4 | 89 | 18 | |

| Date | Time of Sample | Total Phosphorus | Total Kjeldahl Nitrogen (TKN) (mg/L) | Nitrite (NO_2) + Nitrate (NO_3) (mg/L) | Total Nitrogen (mg/L) | E. coli (MPN/100mL) | E. coli Geometric Mean |
|-----------------|----------------|------------------|--------------------------------------|--|-----------------------|---------------------|------------------------|
| Standard | NA | Narrative | Narrative | Narrative | Narrative | <406 | <126 |
| 04/08/2021 | 9:30 | 0.012 | ND | ND | | | |
| 06/15/2021 | 10:30 | 0.036 | 0.390 | 0.140 | 0.530 | 331 | |
| 07/22/2021 | 10:00 | 0.030 | 0.440 | ND | 0.465 ^C | 121 | |
| 08/12/2021 | 10:10 | 0.031 | 0.440 | 0.097 | 0.537 | 110 | 164 |

