

New Hampshire Volunteer River Assessment Program  
2019 Contoocook 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

<sup>A</sup> Specific conductance > 835 µS/cm indicate 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) and/or 1/2 of the 0.050 mg/L detection limit of Nitrate+Nitrite (0.025 mg/L)

**32M-CTC, Contoocook River, Upstream of Jaffrey WWTF, Jaffrey, NHDES 2019 Synoptic 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 <sup>A</sup>	NA	<406	<126	230 <sup>B</sup>
06/26/2019	09:50	8.45	95.3	6.65	2.14	115.7	21.4	122		24
07/23/2019	10:00	7.52	87.1	6.75	3.89	173.0	22.6	146		37
08/21/2019	10:00	7.91	90.5	6.73	3.09	131.7	22.0	359	186	26

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)
Standard	NA	Narrative	Narrative	Narrative	Narrative
06/26/2019	09:50	0.029	0.91	ND	0.93 <sup>C</sup>
07/23/2019	10:00	0.039	0.37	ND	0.43 <sup>C</sup>
08/21/2019	10:00	0.032	0.49	0.07	0.57

**32-CTC, Contoocook River, Lehtinen Road Bridge off Route 202, Jaffrey, NHDES 2019 Synoptic 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 <sup>A</sup>	NA	<406	<126	230 <sup>B</sup>
06/26/2019	10:05	8.44	95.4	6.68	2.77	123.2	21.4	120		28
07/23/2019	10:20	7.30	84.1	6.75	4.22	161.4	22.3	228		33
08/21/2019	10:20	8.10	92.9	6.73	2.69	136.4	22.1	213	180	31

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)
Standard	NA	Narrative	Narrative	Narrative	Narrative
06/26/2019	10:05	0.025	0.35	0.06	0.46
07/23/2019	10:20	0.040	0.40	ND	0.43 <sup>C</sup>
08/21/2019	10:20	0.030	0.35	0.10	0.50

**02F-GRD, Gridley River, Sharon, NHDES 2019 Synoptic 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 <sup>A</sup>	NA	<406	<126	230 <sup>B</sup>
06/26/2019	10:25	7.11	75.6	5.53	0.33	67.7	18.3	31		14
07/23/2019	11:00	6.73	71.3	5.41	1.05	101.6	18.1	1414		20
08/21/2019	11:15	7.73	85.6	5.41	1.03	83.4	20.4	148	187	18

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)
Standard	NA	Narrative	Narrative	Narrative	Narrative
06/26/2019	10:25	0.021	0.49	ND	0.52 <sup>C</sup>
07/23/2019	11:00	0.029	0.40	ND	0.43 <sup>C</sup>
08/21/2019	11:15	0.033	0.63	0.06	0.69

**30M-CTC, Contoocook River, Sharon Road Bridge, Peterborough**

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 <sup>A</sup>	NA
06/27/2019	08:40	7.70	86.1	6.99	1.74	97.6	17.8
08/22/2019	08:24	8.40	91.2	6.58	1.23	119.1	19.6
09/12/2019	08:42	9.00	92.4	6.76	1.00	134.1	16.6

**30-CTC, Contoocook River, Noone Falls Mill Dam, Peterborough**

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 <sup>A</sup>	NA
06/27/2019	08:15	7.65	86.5	6.35	1.55	120.7	17.7
08/22/2019	08:06	7.01	77.1	6.35	1.28	126.6	19.5
09/12/2019	08:31	7.75	82.4	6.36	1.37	136.5	18.3

**27W-CTC, Contoocook River, Main Street Bridge, Peterborough**

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 <sup>A</sup>	NA
06/27/2019	07:50	8.35	96.4	6.70	1.26	88.2	18.9
08/22/2019	07:49	7.86	87.6	6.50	1.68	120.5	20.3
09/12/2019	08:13	8.27	88.3	6.56	1.07	123.1	18.5

**26-CTC, Contoocook River, Route 202/136 Bridge, Peterborough**

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 <sup>A</sup>	NA
06/27/2019	07:32	7.78	85.4	6.81	1.49	92.2	21.0
08/22/2019	07:30	7.58	85.4	6.60	2.98	114.9	20.7
09/12/2019	07:45	7.96	86.6	6.74	1.11	121.2	18.9

**25Y-CTC, Contoocook River, Upstream of Peterborough WWTF, Peterborough, NHDES 2019 Synoptic 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 <sup>A</sup>	NA	<406	<126	230 <sup>B</sup>
06/26/2019	11:00	8.80	97.4	6.77	1.36	94.2	20.3	213		19
07/23/2019	11:45	8.56	92.4	6.75	3.22	89.7	19.1	2142		16
08/21/2019	12:00	8.23	94.6	6.99	0.93	125.7	22.2	420	577	27

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)
Standard	NA	Narrative	Narrative	Narrative	Narrative
06/26/2019	11:00	0.021	0.30	0.09	0.39
07/23/2019	11:45	0.046	0.42	0.08	0.50
08/21/2019	12:00	0.016	0.25	0.11	0.36

**25X-CTC, Contoocook River, Downstream of Peterborough WWTF, Peterborough, NHDES 2019 Synoptic 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 <sup>A</sup>	NA	<406	<126	230 <sup>B</sup>
06/26/2019	11:25	8.81	98.8	6.80	1.32	97.2	21.0	158		20
07/23/2019	12:20	8.63	93.4	6.76	3.61	90.1	19.2	2909		15
08/21/2019	12:45	8.93	103.0	7.08	0.93	127.8	22.4	288	510	25

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)
Standard	NA	Narrative	Narrative	Narrative	Narrative
06/26/2019	11:25	0.030	0.39	0.09	0.48
07/23/2019	12:20	0.049	0.45	0.09	0.54
08/21/2019	12:45	0.031	0.51	0.11	0.62

**25J-CTC, Contoocook River, Cavender Road Bridge, Hancock**

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 <sup>A</sup>	NA
09/21/2019	12:05	7.68	96.8	6.95	1.49	77.4	19.3

**25-CTC, Contoocook River, Forest Road Bridge, Hancock**

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 <sup>A</sup>	NA
09/21/2019	11:00	7.49	95.9	6.97	1.85	74.4	18.6

**24N-CTC, Contoocook River, Powder Mill Pond RR Bridge, Hancock**

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 <sup>A</sup>	NA
09/21/2019	10:20	7.80	96.3	6.88	1.61	68.0	18.2

**22-CTC, Contoocook River, Depot Street Bridge, Bennington, NHDES 2019 Synoptic 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 <sup>A</sup>	NA	<406	<126	230 <sup>B</sup>
06/26/2019	12:15	8.00	90.9	6.77	1.03	86.2	21.6	20		17
07/23/2019	13:35	7.74	90.8	6.90	1.57	99.0	23.3	318		17
08/21/2019	14:00	7.81	90.7	6.68	1.39	122.2	22.8	75	78	26

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)
Standard	NA	Narrative	Narrative	Narrative	Narrative
06/26/2019	12:15	0.020	0.27	0.06	0.36
07/23/2019	13:35	0.031	0.32	ND	0.32 <sup>C</sup>
08/21/2019	14:00	0.067	0.48	0.06	0.56

**ISLSTDO, Island Pond Outlet, Treelyn Road Bridge, Stoddard, NHDES VLAP Station**

Date	Time of Sample	pH	Turbidity (NTUs)	Specific Conductance (µS/cm)	<i>E. coli</i> (CTS/100mL)	Total Phosphorus (mg/L)
Standard	NA	6.5-8.0	<10 NTU above background	835 µS/cm <sup>A</sup>	<406	Narrative
07/14/2019	10:00	6.51	0.34	33.3	2	0.012
08/18/2019	10:00	6.48	0.42	34.3	6	0.007
06/09/2019	10:15	6.31	0.98	32.8	1	0.010

**01-GRT, Great Brook, Antrim, NHDES 2019 Synoptic 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 <sup>A</sup>	NA	<406	<126	230 <sup>B</sup>
06/26/2019	12:00	8.74	95.1	6.85	1.53	64.0	19.5	256		10
07/23/2019	13:00	9.03	96.6	7.07	3.91	74.0	18.6	4106		11
08/21/2019	13:45	8.55	94.8	6.88	1.40	89.4	20.4	98	1025	14

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)
Standard	NA	Narrative	Narrative	Narrative	Narrative
06/26/2019	12:00	0.027	0.35	0.09	0.44
07/23/2019	13:00	0.045	0.42	0.12	0.54
08/21/2019	13:45	0.023	0.28	0.11	0.39

**14-CTC, Contoocook River, Western Avenue Bridge, Henniker**

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 <sup>A</sup>	NA
07/07/2019	14:15	8.43	96.8	6.41	0.90	93.2	22.3
07/30/2019	18:05	7.58	98.1	6.17	0.96	88.1	27.8
08/20/2019	18:15	6.91	87.9	6.71	0.88	105.3	26.9
09/29/2019	18:30	9.33	98.3	6.22	0.72	108.5	17.9

**13C-CTC, Contoocook River, Covered Bridge at New England College, Henniker, NHDES 2019 Synoptic 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 <sup>A</sup>	NA	<406	<126	230 <sup>B</sup>
06/25/2019	12:30	8.72	96.0	6.63	0.79	79.8	20.0	31		15
07/07/2019	15:30	9.28	109.4	6.23	0.70	98.8	23.6			
07/25/2019	09:00	8.34	96.5	6.77	1.61	101.5	22.5	63		17
07/30/2019	17:35	8.14	105.5	6.20	0.92	87.6	27.9			
08/20/2019	17:40	<del>8.75</del>	<del>109.2</del>	6.80	1.31	113.9	25.8			
08/22/2019	12:00	8.20	95.1	6.75	1.29	107.1	23.5	160	68	22
09/29/2019	17:45	9.95	107.0	6.48	0.62	110.2	18.9			

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)
Standard	NA	Narrative	Narrative	Narrative	Narrative
06/25/2019	12:30	0.022	0.30	0.08	0.38
07/25/2019	09:00	0.027	0.31	0.05	0.35
08/22/2019	12:00	0.030	0.60	0.07	0.67

**13-CTC, Contoocook River, Ramsdell Road Bridge, Henniker**

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 <sup>A</sup>	NA
07/07/2019	16:15	7.85	91.0	6.19	0.80	102.3	22.7
07/30/2019	17:15	7.83	99.4	6.62	0.77	89.6	26.8
08/20/2019	18:45	7.39	90.5	5.45	0.94	112.2	24.8
09/29/2019	17:20	9.27	98.5	6.32	0.56	121.3	18.3

**12P-CTC, Contoocook River, Downstream of Henniker WWTF Outfall, DOT Facility, Henniker, NHDES 2019 Synoptic 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 <sup>A</sup>	NA	<406	<126	230 <sup>B</sup>
06/25/2019	11:45	8.86	97.4	6.80	0.72	81.4	20.0	20		15
07/25/2019	09:30	8.14	94.7	7.06	1.60	103.5	22.9	63		18
08/22/2019	11:20							144	57	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)
Standard	NA	Narrative	Narrative	Narrative	Narrative
06/25/2019	11:45	0.027	0.36	0.11	0.47
07/25/2019	09:30	0.036	0.31	0.08	0.39
08/22/2019	11:20	0.032	0.27	0.14	0.41

**11M-CTC, Contoocook River, River Road, Henniker**

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 <sup>A</sup>	NA
07/07/2019	17:05	8.31	94.2	6.14	1.80	87.5	21.6
07/30/2019	16:51	6.76	87.2	5.61	0.83	99.5	27.7
08/20/2019	19:10	7.75	96.4	6.09	1.05	115.5	25.7
09/29/2019	16:50	9.72	101.8	6.53	0.65	134.1	17.6

**10-CTC, Contoocook River, Downstream of Route 127 Bridge & Hopkinton Dam, Hopkinton**

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 <sup>A</sup>	NA
07/07/2019	17:50	8.01	92.9	5.90	1.60	98.6	22.7
07/30/2019	18:50	7.55	95.5	6.46	1.16	95.8	26.6
08/20/2019	19:40	7.15	87.9	6.24	0.99	115.6	25.1
09/29/2019	18:10	8.98	94.4	6.03	0.53	130.1	17.8

**02-CTC, Contoocook River, East Street Bridge, Penacook, 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 <sup>A</sup>	NA	<406	<126	230 <sup>B</sup>
06/21/2019	09:10	8.74	95.6	6.79	0.69	86.6	19.7	97		16
07/19/2019	09:30	8.20	98.0	6.83	0.66	108.3	24.3	<10		19
08/16/2019	09:00	8.14	95.3	6.35	0.46	118.0	23.2	52	29	21
10/15/2019	12:00	11.11	105.3	6.92	0.52	120.6	12.8			21

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)
Standard	NA	Narrative	Narrative	Narrative	Narrative
06/21/2019	09:10	0.020	ND	0.11	0.24 <sup>C</sup>
07/19/2019	09:30	0.022	ND	0.11	0.24 <sup>C</sup>
08/16/2019	09:00	0.015	0.34	0.07	0.37
10/15/2019	12:00	0.063	ND	0.07	0.20 <sup>C</sup>



29 Hazen Drive, Concord, New Hampshire 03301 • (603) 271-3503 • [www.des.nh.gov](http://www.des.nh.gov)