

Library Reference 5.2

**Table 2-1.** Flow-weighted average of limnological parameters, 2010, in Onondaga Lake tributaries, with standard error of estimate.

Parameter	Units	Nine Mile Creek		Harbor Brook		Onondaga Creek @ Kirpatrick Street		Ley Creek	
		Concentration	RSE	Concentration	RSE	Concentration	RSE	Concentration	RSE
5-day BOD	mg/l	2.4	5.8%	2.1	3.7%	2.3	5.5%	2.7	7.1%
Total Alkalinity	mg/l	201	2.4%	246	2.1%	210	4.3%	173	8.7%
Total Organic Carbon	mg/l	3.4	8.2%	2.1	9.5%	3.4	12.6%	6.9	6.5%
TOC-filtered	mg/l	3.3	8.5%	2.0	9.4%	3.1	12.9%	6.7	6.5%
Total Inorganic Carbon	mg/l	47.8	2.3%	59.4	2.6%	48.5	5.4%	42.5	8.9%
Total Kjeldahl Nitrogen as N	mg/l	0.70	6.5%	0.50	9.9%	0.74	9.0%	0.70	4.7%
Organic Nitrogen as N	mg/l	0.53	9.1%	0.44	11.2%	0.68	9.6%	0.50	4.9%
Ammonia as N	mg/l	0.17	7.5%	0.05	7.9%	0.06	7.0%	0.20	15.6%
Nitrate as N	mg/l	0.87	7.8%	1.29	3.9%	0.92	8.7%	0.26	9.9%
Nitrite as N	mg/l	0.02	12.1%	0.01	4.4%	0.04	20.4%	0.02	6.6%
Arsenic	ug/l	2.0	0.0%	2.0	0.0%	2.0	0.0%	2.0	0.0%
Total Phosphorus	ug/l	79.6	18.6%	64.5	11.5%	148.2	31.1%	72.0	8.4%
Soluble Reactive Phosphorus	ug/l	16.4	29.6%	29.2	10.9%	15.6	26.1%	13.1	14.1%
Silica	mg/l	4.2	4.4%	5.1	5.9%	5.0	4.5%	5.5	6.4%
Calcium	mg/l	165.6	8.0%	191.7	8.4%	96.7	7.1%	93.3	11.0%
Sodium	mg/l	94.9	8.0%	151.4	8.1%	185.7	18.3%	173.6	19.4%
Sulfate	mg/l	159.1	10.3%	328.2	11.2%	77.1	17.1%	84.3	14.0%
Chloride	mg/l	223.8	11.3%	257.8	7.5%	289.1	18.2%	276.5	20.4%
Total Suspended Solids	mg/l	22	19.8%	12	18.9%	80	24.9%	13	15.4%
Total Dissolved Solids	mg/l	838	8.2%	1118	7.2%	821	12.9%	797	15.3%
Zinc	ug/l	22.4	24.0%	23.0	29.3%	18.9	24.4%	30.2	30.6%
Copper	ug/l	3.7	19.8%	2.6	1.1%	4.5	25.9%	4.8	18.1%
Chromium	ug/l	2.0	0.0%	2.1	1.4%	2.9	15.1%	2.5	6.3%
Cadmium	ug/l	0.8	0.0%	0.8	0.0%	0.8	0.0%	0.8	0.0%
Lead	ug/l	2.1	1.6%	2.4	7.1%	2.0	2.9%	3.1	15.6%
Iron	mg/l	1.00	17.6%	0.39	20.5%	4.4	34.9%	1.0	6.8%
Magnesium	mg/l	25.3	5.0%	36.0	6.1%	20.7	6.6%	17.5	11.9%
Manganese	ug/l	66.7	5.9%	23.0	5.8%	111.8	21.6%	94.6	12.0%
Nickel	ug/l	3.8	0.0%	3.8	0.0%	4.4	7.5%	3.8	0.0%
Fecal Coliforms	cells/100ml	1,917	17.6%	3,210	34.4%	2,582	26.2%	1,004	18.0%

RSE = relative standard error of the concentration estimate. \*\* METRO BOD5, NH3-N, TP, TSS based on observations made daily,

Calculated using a multiple regression algorithm relating concentration to flow, season, and trend with residual interpolation.

METRO TKN based on observations made 5 times each 2 week period. Other values are based on data collected bi-weekly; heavy metals sampled quarterly.

Calculations use the laboratory reported minimal reportable limit (MRL) when observations were below the MRL.

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**Table 2-1.** Flow-weighted average of limnological parameters, 2010, in Onondaga Lake tributaries, with standard error of estimate. (Continued)

Parameter	Units	Trib. 5A		METRO Effluent **		METRO By-Pass		East Flume	
		Concentration	RSE	Concentration	RSE	Concentration	RSE	Concentration	RSE
5-day BOD	mg/l	2.6	11.7%	3.0	2.3%	57.7	6.0%	6.5	8.7%
Total Alkalinity	mg/l	176	1.5%	167	4.2%	209	6.8%	138	6.5%
Total Organic Carbon	mg/l	3.6	5.9%	6.3	4.9%	12.3	0.7%	3.6	4.7%
TOC-filtered	mg/l	3.5	5.9%	5.9	4.8%	10.7	2.1%	3.5	4.5%
Total Inorganic Carbon	mg/l	42.1	1.7%	43.0	4.5%	49.1	7.3%	32.3	7.8%
Total Kjeldahl Nitrogen as N	mg/l	0.49	4.5%	1.2	2.5%	9.8	5.6%	1.8	10.6%
Organic Nitrogen as N	mg/l	0.35	6.5%	0.9	11.0%	3.2	2.6%	0.66	17.2%
Ammonia as N	mg/l	0.15	8.3%	0.3	7.1%	5.9	8.4%	1.12	11.2%
Nitrate as N	mg/l	0.60	7.2%	10.8	1.6%	1.2	7.8%	3.2	5.9%
Nitrite as N	mg/l	0.02	31.5%	0.03	9.7%	0.08	6.0%	0.87	5.8%
Arsenic	ug/l	2.1	7.1%	2.0	0.0%	2.0	0.0%	2.3	4.4%
Total Phosphorus	ug/l	100.6	7.4%	79.4	1.5%	1075.8	6.9%	92.6	7.0%
Soluble Reactive Phosphorus	ug/l	35.0	7.7%	3.6	19.1%	346.6	15.0%	20.2	19.4%
Silica	mg/l	7.7	4.8%	5.3	2.1%	4.9	13.9%	9.8	5.7%
Calcium	mg/l	132.3	2.4%	135.0	3.7%	102.2	0.3%	124.6	4.8%
Sodium	mg/l	158.9	2.6%	219.8	5.8%	184.3	4.2%	441.7	9.6%
Sulfate	mg/l	83.5	4.2%	157.4	3.6%	123.5	6.0%	191.9	7.0%
Chloride	mg/l	307.2	3.4%	386.5	3.4%	244.8	4.2%	693.5	9.2%
Total Suspended Solids	mg/l	15	57.0%	5.0	1.9%	62	14.1%	11	15.5%
Total Dissolved Solids	mg/l	882	2.4%	1121	2.2%	746	1.3%	1608	7.6%
Zinc	ug/l	20.6	40.4%	19.4	1.7%	49.9	14.0%	37.1	12.5%
Copper	ug/l	15.0	56.1%	9.8	1.7%	111.1	72.0%	5.1	8.3%
Chromium	ug/l	24.5	75.1%	7.4	3.1%	37.4	75.5%	2.8	16.2%
Cadmium	ug/l	0.80	0.0%	0.8	0.0%	4.9	2.6%	0.80	0.0%
Lead	ug/l	3.9	36.4%	2.0	0.0%	19.6	2.3%	3.1	20.1%
Iron	mg/l	1.2	34.7%	1.60	3.2%	2.7	20.9%	0.34	20.8%
Magnesium	mg/l	15.8	1.0%	23.0	2.5%	17.2	3.0%	18.9	5.9%
Manganese	ug/l	76.5	13.0%	41.4	1.4%	47.0	12.2%	25.0	7.2%
Nickel	ug/l	62.9	27.0%	14.3	2.6%	64.6	74.1%	3.8	0.0%
Fecal Coliforms	cells/100ml	61	22.6%	580	18.7%	136,296	31.6%	299	34.3%

RSE = relative standard error of the concentration estimate. \*\* METRO BOD5, NH3-N, TP, TSS based on observations made daily, Calculated using a multiple regression algorithm relating concentration to flow, season, and trend with residual interpolation.

METRO TKN based on observations made 5 times each 2 week period. Other values are based on data collected bi-weekly from Calculations use the laboratory reported minimal reportable limit (MRL) when observations were below the MRL.