

Library Reference 5.4

Annual (January to December) tributary loadings to Onondaga Lake 1990-2010, and comparison of 2010 to long-term average conditions.

Parameter	Units	Annual Load 1990	Annual Load 1991	Annual Load 1992	Annual Load 1993	Annual Load 1994	Annual Load 1995	Annual Load 1996	Annual Load 1997	Annual Load 1998
5-day BOD	mt	2,835	2,109	4,059	4,226	2,928	2,433	3,300	2,134	2,220
Total Alkalinity	mt	127,204	86,082	104,777	107,504	92,308	64,728	101,576	75,112	83,374
Total Organic Carbon	mt	5,836	4,531	3,324	4,344	2,558	2,369	3,867	2,269	2,072
Total Inorganic Carbon	mt	32,160	21,471	26,846	26,429	23,876	16,533	26,113	18,466	22,172
Total Kjeldahl N	mt	1,907	1,745	1,880	2,003	1,927	1,883	2,081	1,494	1,274
Ammonia-N	mt	1,364	1,265	1,287	1,321	1,408	1,541	1,498	1,118	833
Nitrate-N	mt	779	488	485	515	476	295	534	465	869
Nitrite-N	mt	84	88	61	53	49	46	44	62	46
Organic-N	mt	551	436	584	666	514	324	580	376	413
Total Phosphorus	mt	149	83	126	140	83	65	112	50	68
Soluble Reactive P	mt	29	24	22	30	20	19	24	12	12
Calcium	mt	98,242	72,741	77,957	76,011	67,176	50,443	72,581	57,271	61,175
Sodium	mt	88,765	75,504	76,862	91,093	82,787	58,656	77,378	65,721	76,469
Chloride	mt	220,065	182,969	180,697	196,525	164,121	119,322	156,452	138,290	156,969
Total Suspended Solids	mt	24,975	13,120	22,603	15,568	11,670	5,694	19,230	5,404	10,397
Fecal Coliform	10 <sup>10</sup> cfu	1,120,878	1,099,838	3,040,649	5,519,621	1,103,861	9,182,161	3,254,615	1,833,174	2,849,618
Precipitation	inches	49.47	37.05	43.61	43.38	36.63	31.34	39.39	32.62	37.06

Tributary loading consists of data from these tributaries: Metro (Outfall 001 and Bypass), Tributary 5A, East Flume, Ninemile Creek, Ley Creek, Onondaga Creek (at Kirkpatrick), and Harbor Brook (at Hiawatha).

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Annual (January to December) tributary loadings to Onondaga Lake 1990-2010, and comparison of 2010 to long-term average conditions (continued).

Parameter	Units	Annual Load 1999	Annual Load 2000	Annual Load 2001	Annual Load 2002	Annual Load 2003	Annual Load 2004	Annual Load 2005	Annual Load 2006	Annual Load 2007
5-day BOD	mt	1,745	1,981	1,734	2,325	2,696	2,054	1,495	1,495	1,447
Total Alkalinity	mt	59,355	90,576	75,898	85,765	102,123	110,499	104,601	109,320	97,150
Total Organic Carbon	mt	1,682	2,224	1,895	1,975	2,896	3,121	2,196	2,073	1,827
Total Inorganic Carbon	mt	15,203	23,876	19,667	22,533	26,978	29,222	27,387	27,469	25,433
Total Kjeldahl N	mt	907	982	824	1,018	932	580	363	405	402
Ammonia-N	mt	614	571	499	643	503	240	94	150	142
Nitrate-N	mt	625	772	667	463	977	1,379	1,541	1,261	1,243
Nitrite-N	mt	41	52	38	31	47	31	13	20	17
Organic-N	mt	276	403	319	332	440	318	255	241	230
Total Phosphorus	mt	54	53	46	48	68	83	49	42	37
Soluble Reactive P	mt	9.3	7.4	7.5	6.7	15	31	7.3	4.6	5.1
Calcium	mt	49,142	64,406	55,498	60,308	68,945	73,697	77,168	75,710	70,602
Sodium	mt	76,776	90,648	85,662	88,817	102,078	96,368	109,127	106,490	110,621
Chloride	mt	144,908	171,897	167,643	168,405	193,596	186,907	199,532	187,570	205,855
Total Suspended Solids	mt	11,342	14,034	9,567	9,109	10,368	16,157	14,209	17,923	15,958
Fecal Coliform	10 <sup>10</sup> cfu	3,957,407	1,629,608	1,957,691	2,635,930	1,196,515	2,044,624	830,885	1,329,586	1,691,052
Precipitation	inches	30.88	37.01	34.30	40.26	37.60	43.14	40.10	47.20	41.60

Tributary loading consists of data from these tributaries: Metro (Outfall 001 and Bypass), Tributary 5A, East Flume, Ninemile Creek, Ley Creek, Onondaga Creek (at Kirkpatrick), and Harbor Brook (at Hiawatha).

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Annual (January to December) tributary loadings to Onondaga Lake 1990-2010, and comparison of 2010 to long-term average conditions (continued).

Parameter	Units	Annual Load 2008	Annual Load 2009	Annual Load 2010	Average Load 1990-2009	% Change 2010 from Average
5-day BOD	mt	1,382	1,454	1,202	2,303	-48%
Total Alkalinity	mt	87,329	85,831	89,073	92,556	-4%
Total Organic Carbon	mt	1,735	1,634	1,924	2,722	-29%
Total Inorganic Carbon	mt	21,990	22,622	21,335	23,822	-10%
Total Kjeldahl N	mt	342	354	378	1,165	-68%
Ammonia-N	mt	105	91	80	764	-90%
Nitrate-N	mt	1,284	1,218	1,216	817	49%
Nitrite-N	mt	15	11	14	42	-67%
Organic-N	mt	219	249	298	386	-23%
Total Phosphorus	mt	37	38	49	72	-32%
Soluble Reactive P	mt	4.7	4.4	6.7	14.7	-54%
Calcium	mt	65,710	62,810	58,257	67,880	-14%
Sodium	mt	115,942	96,271	73,098	88,602	-17%
Chloride	mt	206,179	165,115	129,282	175,651	-26%
Total Suspended Solids	mt	14,991	16,217	18,057	13,927	30%
Fecal Coliform	10 <sup>10</sup> cfu	1,467,019	1,368,226	1,040,796	2,455,648	-58%
Precipitation	inches	41.91	35.36	41.47	38.44	8%

Tributary loading consists of data from these tributaries: Metro (Outfall 001 and Bypass), Tributary 5A, East Flume, Ninemile Creek, Ley Creek, Onondaga Creek (at Kirkpatrick), and Harbor Brook (at Hiawatha).