

2006 Parameter Data: Total Nitrogen in Lakes, Ponds, and Reservoirs

Nitrogen is an important nutrient for plant and algae growth, but excess concentrations can cause cultural eutrophication, particularly in estuarine or marine systems. In saltwater, nitrogen is typically the nutrient that limits plant and algae growth, known as the limiting nutrient. However, in waters with high concentrations of phosphorus, the usual limiting nutrient in freshwater, nitrogen plays a more important role in eutrophication. When eutrophication occurs, algal and plant growth is over stimulated, water clarity is decreased, deep waters become depleted of dissolved oxygen, and fish and shellfish death may result. Precipitation, agricultural, lawn and garden fertilizer, animal wastes, and human waste from sewage treatment plants or septic systems are sources of nitrogen. Measurements of total nitrogen include all forms of dissolved and particulate nitrogen, i.e., nitrate-nitrogen, ammonium-nitrogen, and also organic forms of nitrogen.

Watershed code	LOCATION	Sample Depth (m)	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	MEAN
			-- (ug/l or ppb) --						
WD	ALTON POND	1	490	-	560	-	-	-	525
S	ASA POND	1	850	-	780	-	-	-	815
WD	BARBER POND	1	480	-	470	-	-	550	500
WD	BARBER POND	4.5	-	-	1010	-	-	-	1010
A	BELLEVILLE POND - LOWER	1	980	-	390	-	-	-	685
A	BELLEVILLE POND - UPPER	0.5	-	620	380	-	-	-	500
PA	BLACKAMORE POND	1	1590	-	420	-	-	1120	1043
TH	BLUE LAKE	1	840	-	630	-	-	620	697
WD	BOONE LAKE	1	490	-	420	-	-	420	443
WD	BOONE LAKE	5	480	-	760	-	-	430	557
TH	BOWDISH RESERVOIR	1	250	-	280	-	230	-	253
WD	BROWNING MILL POND	1	270	-	390	-	-	280	313
TH	CARBUNCLE POND	1	410	-	430	300	-	420	390
TH	CARBUNCLE POND	6.5	440	-	590	610	-	420	515
PE	CARR POND (NK)	1	830	-	1330	-	-	740	967
PE	CARR POND (NK)	4.5	830	-	1430	-	-	850	1037
PA	CARR POND (WG)	1	340	-	210	-	-	130	227
PA	CARR POND (WG)	9	670	-	620	-	-	1490	927
TH	CLARKVILLE POND	1	200	-	240	-	-	220	220
CW	DEEP POND	1	260	-	250	-	-	240	250
CW	DEEP POND	5	340	-	470	-	-	410	407
PA	FENNER POND	1	1120	-	960	-	-	1050	1043
PA	FLAT RIVER RESERVOIR	1	360	-	470	-	-	360	397
PA	FLAT RIVER RESERVOIR	7	410	-	480	-	-	580	490
WO	GEORGIAVILLE POND	1	500	-	400	-	-	350	417
WO	GEORGIAVILLE POND	6	610	-	840	-	-	520	657
NA	GORTON POND	1	-	800	450	500	-	540	573
NA	GORTON POND	10	-	1270	1650	1540	-	2070	1633
WO	HAWKINS POND	1	480	-	520	-	-	420	473
WD	HUNDRED ACRE POND	1	880	-	790	-	-	710	793
WD	HUNDRED ACRE POND	6	850	-	770	-	-	820	813

ND = No Detect; Limit of Detection = 40 ppb; Mean calculated using half the limit of detection (20 ppb) for ND

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			-- (ug/l or ppb) --						
S	INDIAN LAKE	1	640	-	420	-	-	350	470
B	KEECH POND	1	-	340	490	-	-	460	430
CE	LILY POND	1	630	-	610	-	-	-	620
PA	LITTLE POND	1	410	-	380	1120	-	600	628
PA	LITTLE POND	5	480	-	470	840	-	640	608
WD	LOCUSTVILLE POND	1	270	-	420	-	-	420	370
S	LONG POND (SK)	1	350	-	330	-	-	380	353
S	LONG POND (SK)	7	-	-	-	-	-	-	-
WD	MEADOWBROOK POND	1	430	-	610	-	-	490	510
NA	MELVILLE P - UPPER	1	1050	-	470	-	-	550	690
PA	MESHANICUT POND	0.5	930	-	410	-	-	740	693
PA	MISHNOCK LAKE	1	740	-	680	600	-	670	673
PA	MISHNOCK LAKE	4	780	-	1220	1230	-	810	1010
SK	NANAQUAKET POND	1	290	-	380	-	-	480	383
PA	OAK SWAMP RES.	1	640	-	320	-	-	-	480
B	PASCOAG RESERVOIR	1	260	-	280	-	-	320	287
B	PASCOAG RESERVOIR	4	350	-	320	-	-	320	330
WD	PASQUISETT POND	1	550	-	870	-	-	800	740
PA	PONAGANSETT RESERVOIR	1	210	-	210	260	-	220	225
PA	PONAGANSETT RESERVOIR	9	490	-	380	320	-	590	445
NA	PRINCE'S POND	1	1150	-	640	-	-	1450	1080
NA	PRINCE'S POND	3	1190	-	1500	-	-	1840	1510
PA	PRINTWORKS POND		1440	-	710	-	-	1360	1170
WD	(Glen Rock Res.)	1	360	-	540	-	-	410	437
PA	RANDALL POND	1	580	-	360	-	-	560	500
PA	SAND POND	1	500	-	360	390	-	580	458
PA	SAND POND	7	2000	-	3590	5290	-	2660	3385
S	SAUGATUCKET POND	1	540	-	1020	-	-	800	787
CW	SCHOOLHOUSE P - LOWER	1	460	-	290	-	-	240	330
CW	SCHOOLHOUSE P - LOWER	6+	340	-	480	-	-	-	410
CW	SCHOOLHOUSE P - UPPER	1	220	-	390	-	-	240	283
CW	SCHOOLHOUSE P - UPPER	6+	260	-	470	-	-	-	365
B	SCOTT POND	1	1010	-	650	-	-	1530	1063
B	SCOTT POND	9	940	-	1990	-	-	-	1465
A	SECRET LAKE	1	1420	-	1130	-	-	1300	1283
S	SILVER LAKE	1	580	-	410	-	-	540	510
S	SILVER LAKE	7	670	-	680	-	-	590	647

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Watershed code	LOCATION	Sample Depth (m)	-- (ug/l or ppb) --							MEAN
			MAY	JUNE	JULY	AUG.	SEPT.	OCT.		
PE	SILVER SPRING LAKE	1	1380	-	1330	-	-	1510	1407	
WO	SLACK'S RESERVOIR	1	-	-	490	-	-	680	585	
WO	SLACK'S RESERVOIR	4	-	-	1930	-	-	-	1930	
TE	SLATER POND	1	540	-	880	-	-	nated by s	710	
B	SLATERSVILLE RES - UPPER	1	-	540	560	-	-	480	527	
B	SLATERSVILLE RES - UPPER	5.5	-	650	1270	-	-	740	887	
B	SMITH & SAYLES RES.	1	-	-	-	-	-	-	-	
WD	SPALDING POND	1	360	-	700	-	-	580	547	
PA	SPECTACLE POND	1	900	-	730	-	-	1060	897	
B	SPRING GROVE POND	1	300	-	350	-	-	280	310	
B	SPRING LAKE	1	360	-	360	-	-	370	363	
B	SPRING LAKE	5	370	-	320	-	-	400	363	
TA	STAFFORD POND	1	-	350	350	400	-	280	345	
TA	STAFFORD POND	7	-	430	580	390	-	410	453	
B	TARKILN POND	1	2020	-	-	-	-	-	2020	
PA	TIOGUE LAKE	1	920	-	530	-	-	480	643	
WD	TUCKER POND	1	410	-	-	520	-	610	513	
WD	TUCKER POND	7.5	570	-	-	1510	-	1430	1170	
PA	UPPER DAM POND	1	990	-	590	-	-	410	663	
B	VALLEY FALLS POND	0.5	1360	-	1530	-	-	1250	1380	
NA	WARWICK POND	1	1130	-	760	-	-	1260	1050	
NA	WARWICK POND	5.5	1030	-	2240	-	-	1280	1517	
WD	WATCHAUG POND	1	360	-	550	400	-	490	450	
WD	WATCHAUG POND	10	400	-	580	380	-	550	478	
WO	WATERMAN RESERVOIR	1	430	-	400	-	-	330	387	
NA	WESQUAGE POND	1	670	-	900	-	-	690	753	
WD	WHITE BROOK POND	1	1620	-	2140	2210	-	2460	2108	
WD	WINCHECK POND	1	560	-	-	-	-	-	560	
WD	WINCHECK POND	5	510	-	-	-	-	-	510	
WO	WOONASQUA - STUMP	1	-	450	410	-	-	310	390	
WD	WORDEN POND	1	660	-	780	-	-	560	667	
WD	WYASSUP LAKE	1	300	-	330	-	-	330	320	
WD	WYOMING POND	1	-	-	410	-	-	-	410	
WD	YAWGOO POND	1	390	350	540	710	590	540	520	
WD	YAWGOO POND	10	430	650	1080	1060	1230	640	848	

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