

2005 Parameter Data: Alkalinity in Lakes, Ponds and Reservoirs

Alkalinity, or buffering capacity, is a measure of the ability of a water body to withstand acidic inputs without becoming more acidic itself. It is measured in mg/l calcium carbonate (CaCO₃). Because most of the soils in Rhode Island are formed from acidic granite, which has very little if any buffering capacity, the alkalinity of our waters is usually low. Exceptions are the lakes and ponds in the areas of Rhode Island which have limestone bedrock such as in the Lincoln area.

Alkalinity is measured near the surface where much of the runoff and atmospheric deposition occurs, so sample depth is not indicated in the table below. All sample depths were between approximately 0.5 and 1.0 meters from the surface.

USEPA Alkalinity Classification:

ACIDIFIED: (< 1 ppm with pH < 5.0)

CRITICAL: (< 2 ppm)

ENDANGERED (2-5 ppm)

HIGHLY SENSITIVE (5-10 ppm)

SENSITIVE (10-20 ppm)

NOT SENSITIVE (> 20 ppm)

Watershed	LOCATION	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	MEAN	ALKALINITY
									CLASSIFICATION
Code	Alkalinity at 0.5 or 1M	----- (mg/L or ppm CaCO ₃) -----							
CE	ALMY POND	48	-	-	-	-	47	47	Not Sensitive
WD	ALTON POND	4	-	2	-	-	-	3	Endangered
TH	ARNOLD POND	3	-	5	-	-	5	4	Endangered
S	ASA POND	10	-	22	-	-	-	16	Sensitive
WD	BARBER POND	2	-	5	6	-	4	4	Endangered
A	BELLEVILLE POND - LOWER	11	-	17	-	-	19	16	Sensitive
A	BELLEVILLE POND - UPPER	12	-	18	-	-	9	13	Highly Sensitive
PA	BLACKAMORE POND	26	-	33	-	-	24	28	Not Sensitive
TH	BLUE LAKE	-	-	11	-	-	8	9	Highly Sensitive
WD	BOONE LAKE	3	-	5	-	-	3	4	Endangered
TH	BOWDISH RESERVOIR	2	-	1	-	1	-	1	Critical
WD	BREAKHEART POND	1	-	7	-	-	-	4	Endangered
TH	CARBUNCLE POND	3	-	2	-	-	6	4	Endangered
PE	CARR POND (NK)	9	-	24	-	-	1	11	Variable
PA	CARR POND (WG)	1	-	-1	-	-	0	0	Critical
CW	DEEP POND	-	-	-	-	-	2	2	-
PA	ELM POND	-	-	-	72	-	-	72	Not Sensitive
PA	FENNER POND	32	-	51	-	-	19	34	Not Sensitive
PA	FLAT RIVER RESERVOIR	3	-	5	-	-	7	5	Highly Sensitive
WO	GEORGIAVILLE POND	10	11	-	15	-	12	12	Sensitive
WO	HAWKINS POND	9	-	16	-	-	14	13	Highly Sensitive
WD	HUNDRED ACRE POND	6	-	12	-	1	12	8	Highly Sensitive
S	INDIAN LAKE	2	-	-	2	-	1	2	Endangered
B	KEECH POND	1	-	-1	-	-	1	1	Critical
TH	LAKE WASHINGTON	2	-	5	-	7	-	4	Endangered
CE	LILY POND	-	-	56	-	-	29	42	Not Sensitive
PA	LITTLE POND	5	-	4	-	-	7	5	Highly Sensitive
WD	LOCUSTVILLE POND	0	-	6	-	-	1	2	Endangered

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Code	Alkalinity at 0.5 or 1M	----- (mg/L or ppm CaCO3) -----							
S	LONG POND (SK)	3	-	1	-	-	0	1	Critical
WD	MEADOWBROOK POND	5	-	5	-	-	1	4	Endangered
NA	MELVILLE POND - UPPER	21	-	34	-	-	26	27	Not Sensitive
PA	MISHNOCK LAKE	30	-	14	-	-	13	19	Sensitive
SK	NANAQUAKET POND	91	-	89	-	-	95	91	Not Sensitive
B	NICHOLS POND	5	-	7	-	-	-	6	Highly Sensitive
PA	OAK SWAMP RESERVOIR	9	-	10	-	-	7	9	Highly Sensitive
B	PASCOAG RESERVOIR	1	-	1	-	2	1	2	Critical
WD	PASQUISETT POND	-	-	3	-	-	0	2	Critical
PA	PLEASURE POND	-	-	-	19	-	-	-	-
PA	PONAGANSETT RESERVOIR	3	-	1	-	-	0	1	Critical
NA	PRINCE'S POND	-	-	94	-	-	99	96	Not Sensitive
WD	QUEEN RIVER AT USQUEPAL	4	-	7	-	-	0	4	Endangered
PA	RANDALL POND	26	-	27	-	-	22	25	Not Sensitive
PA	SAND POND	7	-	9	-	-	6	7	Highly Sensitive
S	SAUGATUCKET POND	9	-	18	-	-	5	11	Sensitive
CW	SCHOOLHOUSE POND - LOW	2	-	2	-	-	-6	-1	Critical
CW	SCHOOLHOUSE POND - UPPER	2	-	2	-	-	-6	-1	Critical
B	SCOTT POND	23	-	-	-	-	-	-	-
A	SECRET LAKE	17	-	26	-	-	14	19	Sensitive
S	SILVER LAKE	9	-	9	-	-	10	9	Highly Sensitive
PE	SILVER SPRING LAKE	13	-	17	-	-	11	14	Sensitive
TE	SLATER POND	12	-	18	-	-	7	12	Sensitive
B	SLATERSVILLE RESERVOIR -	3	-	9	-	-	2	4	Highly Sensitive
B	SMITH & SAYLES RESERVOIR	-	-	3	-	-	-	-	-
WD	SPALDING POND	-	-	22	-	-	3	13	Variable
PA	SPECTACLE POND	21	-	34	-	-	29	28	Not Sensitive
B	SPRING GROVE POND	4	-	5	-	-	-1	2	Critical
B	SPRING LAKE	4	-	5	-	-	6	5	Highly Sensitive
TA	STAFFORD POND	-	7	7	-	-	6	7	Highly Sensitive
PA	TARBOX POND	0	-	-	-	-	-	-	-
PA	TIOGUE LAKE	4	-	9	-	-	7	6	Highly Sensitive
WD	TUCKER POND	1	-	1	-	-	-	1	Critical
PA	UPPER DAM POND	12	-	17	-	-	6	12	Highly Sensitive
B	VALLEY FALLS POND	23	-	39	-	-	15	26	Not Sensitive
B	WALLUM LAKE	1	-	2	-	-	-	2	Critical
NA	WARWICK POND	29	-	30	-	-	27	29	Not Sensitive
WD	WATCHAUG POND	2	-	1	-	-	1	1	Critical

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WO	WATERMAN RESERVOIR	6	-	10	-	-	11	9	Highly Sensitive
NA	WESQUAGE POND	6	24	35	-	-	22	22	Not Sensitive
WD	WHITE BROOK POND	-	13	13	-	-	4	10	Highly Sensitive
S	WHITE POND	-	-	13	-	-	-	-	-
WD	WINCHECK POND	1	-	-	-	-	-	-	-
WO	WOONASQUA. RES. - STUMF	11	-	-	-	-	12	11	Sensitive
WD	WORDEN POND	4	-	14	-	-	-	9	Highly Sensitive
WD	WYASSUP LAKE	-	-	7	-	-	6	7	Highly Sensitive
WD	WYOMING POND	-	5	-	-	-	1	3	Endangered
WD	YAWGOO POND	5	-	4	-	-	8	6	Highly Sensitive

