

NEW HAMPSHIRE WATER SUPPLY AND POLLUTION CONTROL COMMISSION

LAKE TROPHIC DATA

MORPHOMETRIC:

LAKE _____	Stocker Pond	LAKE AREA (HA) _____	25.70
TOWN _____	Grantham	MAXIMUM DEPTH (M) _____	5.8
COUNTY _____	Sullivan	MEAN DEPTH (M) _____	3.1
RIVER BASIN _____	Connecticut	VOLUME* (M ³) _____	785,500
LATITUDE _____	43° 29' N	MUD SURFACE AREA (HA) _____	27.71
LONGITUDE _____	72° 07' W	RELATIVE DEPTH _____	1.0
ELEVATION (FT) _____	1019	SHORE CONFIGURATION _____	1.45
SHORE LENGTH (M) _____	2600	AREAL WATER LOAD (M/YR) _____	9.54
WATERSHED AREA (HA) _____	507.1	FLUSHING RATE (YR ⁻¹) _____	3.1
% WATERSHED PONDED _____	1.6	PHOSPHORUS RETENTION COEFF. _____	0.56

BIOLOGICAL:

DATE	23 Feb. 1984	12 Jul. 1983
DOM. PHYTOPLANKTON (% total) ¹	Dinobryon (85%)	Ceratium (25%)
²	Asterionella (10%)	Melosira (25%)
NUMBER OF ALGAL GENERA	7	10
SPECIES DIVERSITY		2.69
CHLOROPHYLL a (µg/L)		4.98
DOM. ZOOPLANKTON (% total) ¹	Keratella (70%)	Peritrich ciliate (25%)
²	Polyarthra (15%)	Polyarthra (20%)
ROTIFERS/LITER	75	478
MICROCRUSTACEA/LITER	2	66
TOTAL ZOOPLANK. CNTS (cells/L)	77	1034
VASCULAR PLANT ABUNDANCE		Common
DOMINANT VASCULAR PLANTS ¹		Cyperaceae
²		Nymphaea
³		Utricularia
SECCHI DISK TRANSPARENCY (M)		2.6
BOTTOM DISS. OXYGEN (mg/L)	5.0	0.0
SEDIMENT: % ORGANIC MATTER		

LAKE TYPE: A natural pond

SUMMER THERMAL STRATIFICATION: YES ☒ NO ☐ WEAK ☐

IF YES, VOLUME OF HYPOLIMNION 52,500 (m³) THERMOCLINE DEPTH 3.5 (m)

CHEMICAL: (mg/L unless indicated otherwise) LAKE: Stocker Pond

	WINTER		SUMMER		
DATE	23 Feb. 1984		12 Jul. 1983		
DEPTH (M)	2.0	4.0	1.0	3.5	5.0
pH (UNITS)	6.2	6.3	6.1	6.1	6.1
ALKALINITY (I. P.)	7.8	14.4			
ALKALINITY (F.E.P.)	9.6	15.9	15.0	14.5	15.0
NITRITE+NITRATE NITROGEN					
TOTAL KJELDAHL NITROGEN					
TOTAL PHOSPHORUS	0.004	0.004	0.012	0.011	0.017
SPEC. CONDUCT. (μ Mhos/cm)	125.3	166.1	129.0	127.9	133.5
APPARENT COLOR (UNITS)	35	35	50	50	60
TRUE COLOR (440 nm)(UNITS)					
MAGNESIUM			1.45		
CALCIUM			8.5		
SODIUM			12		
POTASSIUM			1.0		
CHLORIDE					
TN : TP					
INORG-N : INORG-P					
[Mg+Ca] : [Na+K]					
CALCITE SATURATION INDEX			3.1		

* = NOT DEFENSIBLE

NR = NO RESULT

TROPHIC CLASSIFICATION: 1983

CLASSIFICATION POINTS:

D.O.	S.D.	PLANT ABUND.	CHL a	TOTAL PTS.	TROPHIC CLASS.
5	2	2	0	9	MESO.

COMMENTS:

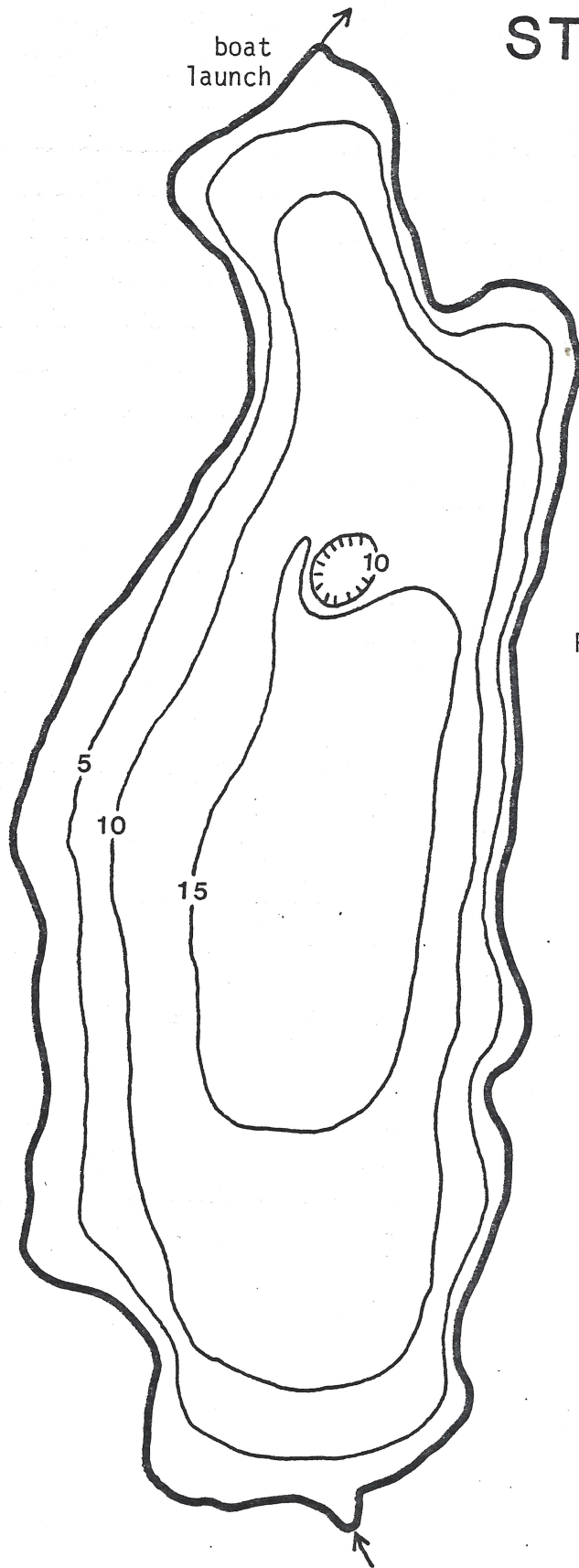
1. Sawdust pile encroaching into pond near the outlet.
2. Pond was subjected to excessive siltation during the construction of I-89 in 1968. Pond was treated with alum in 1969 to remove turbidities.

STOCKER POND

GRANTHAM



boat
launch



ROUGH BATHYMETRIC CHART

WSPCC -- 1983

SOUNDED BY FATHOMETER

5 FT. ISOBATHS



FIELD DATA SHEET

WATER BODY Stocker PondTOWN GranthamBY WSPCCDATE COLLECTED July 12, 1983WEATHER Partly cloudy & warm

STATION	DEPTH (M)	TEMP. (°C)	*DISSOLVED OXYGEN	OXYGEN: % SATURATION			
Deep Spot	0.0	25.0	8.2	100%			
	1.0	22.5	8.0				
	2.0	21.8	7.8				
	3.0	20.2	6.7				
	4.0	15.1	1.2				
	5.0	14.0	0.0	0%			

SECCHI DISK (M) 2.6

COMMENTS:

BOTTOM DEPTH (M) 5.5TIME 1215

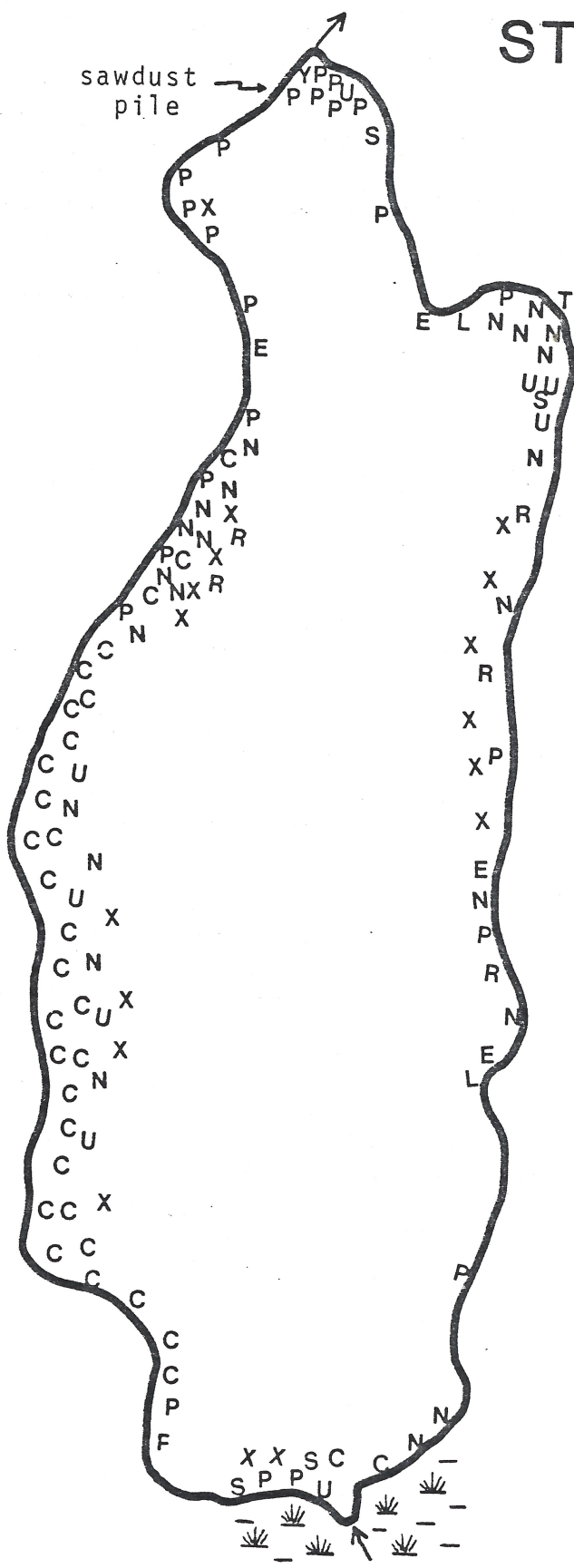
* Dissolved oxygen values in mg/L

STOCKER POND

GRANTHAM



sawdust
pile



AQUATIC PLANTS

12 JUL. 1983

0 .2
|-----| Km.

AQUATIC PLANT SURVEY

LAKE Stocker Pond TOWN Grantham DATE 7/12/83 BY WSPCC

[illegible]

OVERALL ABUNDANCE common

GENERAL OBSERVATIONS:

1. Plants were common overall, and abundant along the western shoreline.
2. An abundance of mussels were observed along the shore.