DEPARTMENT of ENVIRONMENTAL SERVICES
Water Division - Watershed Management Bureau

LAKE TROPHIC DATA

MORPHOMETRIC:

Lake:	STOCKER POND	Lake Area (ha):	25.70
Town:	GRANTHAM	Maximum depth (m):	5.8
County:	Sullivan	Mean depth (m):	2.7
River Basin:	Connecticut	Volume (m^3):	697000
Latitude:	43°29'01" N	Relative depth:	1.0
Longitude:	72°06'40" W	Shore configuration:	1.45
Elevation (ft):	1019	Areal water load (m/yr):	9.54
Shore length (m):	2600	Flushing rate (yr^{-1}):	3.50
Watershed area (ha):	507.1	P retention coeff.:	0.56
% watershed ponded:	2.1	Lake type:	natural

BIOLOGICAL:		16 January 2002	25 July 2001
DOM. PHYTOPLANKTON (% TOTAL)	#1	ASTERIONELLA 99%	DINOBRYON 50%
	#2		CERATIUM 35%
	#3		ASTERIONELLA 8%
PHYTOPLANKTON ABUNDANCE (units/mL)			
CHLOROPHYLL-A (μg/L)			4.91
DOM. ZOOPLANKTON (% TOTAL)	#1	CILIATE SPP. 57%	KERATELLA 28%
	#2	CALANOID COPEPOD 17%	KELLICOTTIA 21%
	#3	DAPHNIA 9%	NAUPLIUS LARVA 19%
ROTIFERS/LITER		20	170
MICROCRUSTACEA/LITER		34	95
ZOOPLANKTON ABUNDANCE (#/L)		131	305
VASCULAR PLANT ABUNDANCE			Common
SECCHI DISK TRANSPARENCY (m)			3.3
BOTTOM DISSOLVED OXYGEN (mg/L)		12.7	2.3
BACTERIA (E. coli, #/100 ml)	#1		2
	#2		1
	#3		

SUMMER THERMAL STRATIFICATION:

stratified

Depth of thermocline (m): 3.0
Hypolimnion volume (m^3) : None
Anoxic volume (m^3) : None

CHEMICAL:

Lake: STOCKER POND
Town: GRANTHAM

	16 January 2002		25 July 2001		
DEPTH (m)	1.5	3.0	2.0		4.0
pH (units)	6.7	6.7	7.1		6.5
A.N.C. (Alkalinity)	12.9	12.4	12.1		11.8
NITRATE NITROGEN	0.10	0.10	< 0.05		< 0.05
TOTAL KJELDAHL NITROGEN	< 0.10	0.60	0.30		0.40
TOTAL PHOSPHORUS	0.005	0.005	0.005		0.009
CONDUCTIVITY (µmhos/cm)	163.5	163.8	144.4		144.8
APPARENT COLOR (cpu)	23	24	25		33
MAGNESIUM			1.41		
CALCIUM			7.3		
SODIUM			15.1		
POTASSIUM			0.89		
CHLORIDE	38	39	33		32
SULFATE	6	6	5		5
TN : TP		140	60		44
CALCITE SATURATION INDEX			2.3		

All results in mg/L unless indicated otherwise

TROPHIC CLASSIFICATION: 2001

D.O.	S.D.	PLANT	CHL	TOTAL	CLASS
**	2	3	1	6	Meso.

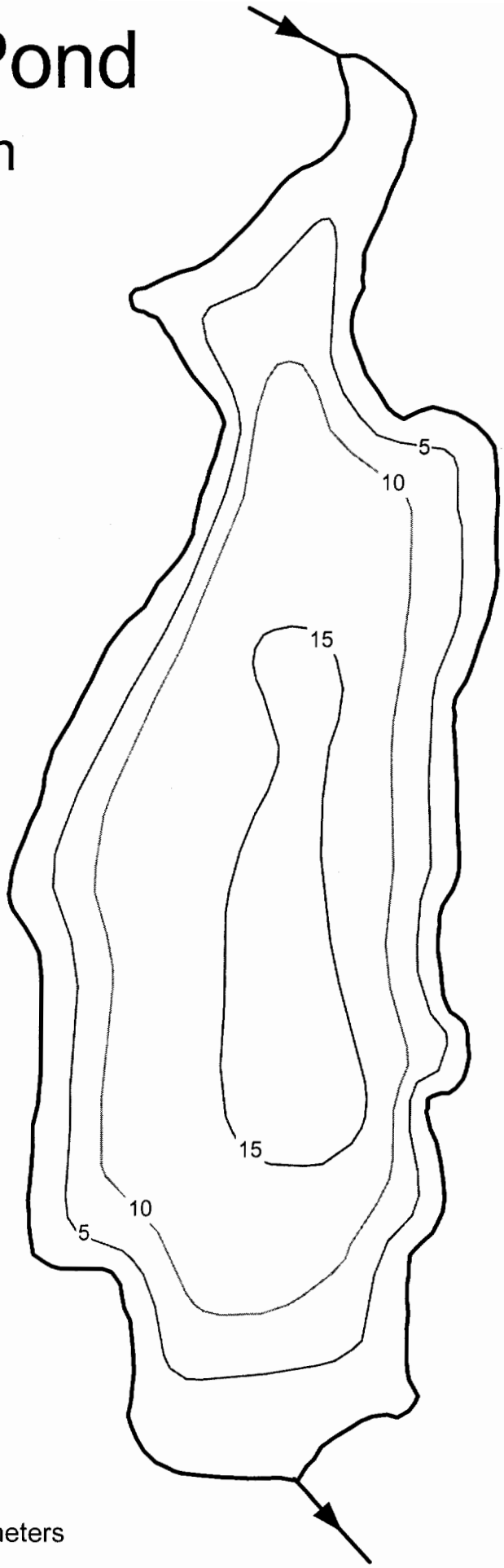
COMMENTS:

1. Previously surveyed in 1983.
2. Participant in VLAP since 1988 but only 1 sample per year collected for the first 10 years of the program.
3. Boat launch located at the northern end of the pond near a lumber company; shallow launch with adequate parking.
4. Elevated sodium, chloride and conductivity levels suggest road salt runoff (the pond is downhill from I89).
5. The winter net phytoplankton was nearly uni-algal with the diatom *Asterionella*.

Stocker Pond

Grantham

5 foot depth contours



N

0 0.1 0.2 Kilometers

FIELD DATA SHEET

LAKE: STOCKER POND
DATE: 07/25/2001

TOWN: GRANTHAM
WEATHER: Bright sun; breezy & warm

	DEPTH (M)	TEMP (°C)	*DISSOLVED OXYGEN	OXYGEN SATURATION
	0.1	26.2	8.0	99 %
	1.0	25.9	7.9	97 %
	2.0	25.4	7.9	96 %
	3.0	21.6	7.8	89 %
	4.0	18.0	3.3	35 %
	4.5	16.9	2.3	24 %

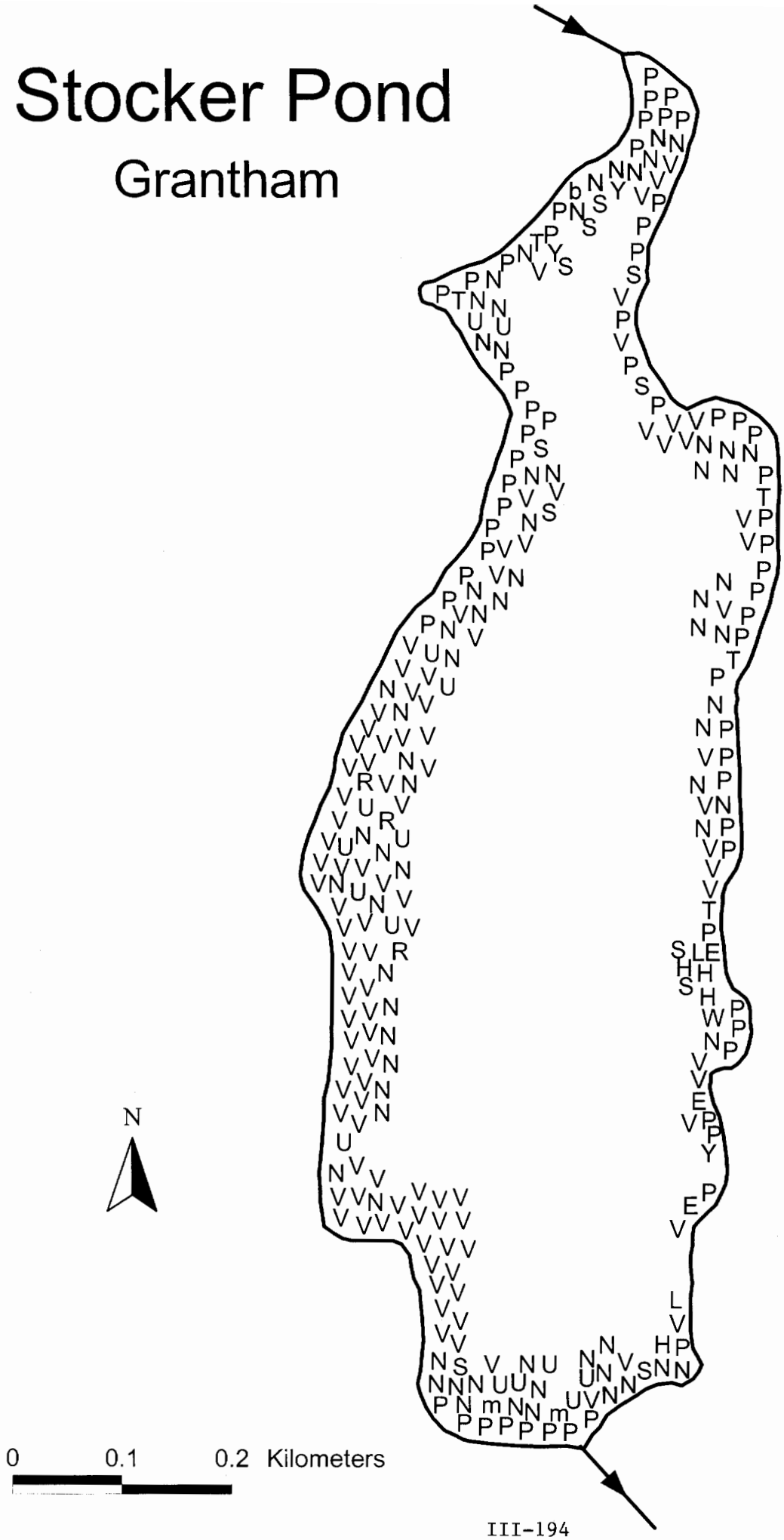
SECCHI DISK (m): 3.3
BOTTOM DEPTH (m): 5.0
TIME: 1119

COMMENTS:

*Dissolved oxygen values are in mg/L

Stocker Pond

Grantham



AQUATIC PLANT SURVEY

LAKE: STOCKER POND TOWN: GRANTHAM DATE: 07/25/2001

Key	PLANT NAME		ABUNDANCE
	GENERIC	COMMON	
P	Pontederia cordata	Pickerelweed	Scattered
N	Nymphaea	White water lily	Common
Y	Nuphar	Yellow water lily	Scattered
V	Scirpus validus	Softstem bulrush	Scattered
S	Sparganium	Bur reed	Sparse
T	Typha	Cattail	Sparse
E	Eriocaulon septangulare	Pipewort	Sparse
L	Lobelia dortmanna	Water lobelia	Scattered
H	Equisetum	Horsetail	Sparse
W	Potamogeton	Pondweed	Sparse
d	Dulichium arundinaceum	Three-way sedge	Sparse
U	Utricularia	Bladderwort	Sparse
m	Proserpinaca	Mermaid weed	Sparse
R	Potamogeton robbinsii	Robbins pondweed	Sparse

OVERALL ABUNDANCE: Common

GENERAL OBSERVATIONS:

1. Wetlands were located along the northeastern end of the pond.
2. Sterile thread-like plant growth covered the visible bottom but is not listed above or depicted on the plant map.