DEPARTMENT of ENVIRONMENTAL SERVICES
Water Supply & Pollution Control Division - Biology Bureau

LAKE TROPHIC DATA

MORPHOMETRIC:

Lake:	SANDY POND	Lake Area (ha):	2.50
Town:	BEDFORD	Maximum depth (m):	4.3
County:	Hillsborough	Mean depth (m):	1.7
River Basin:	Merrimack	Volume (m^3):	42500
Latitude:	42°55' N	Relative depth:	2.4
Longitude:	71°28' W	Shore configuration:	---
Elevation (ft):	---	Areal water load (m/yr):	---
Shore length (m):	---	Flushing rate (yr^{-1}):	---
Watershed area (ha):	---	P retention coeff.:	---
% watershed ponded:	---	Lake type:	natural

BIOLOGICAL:	2 March 1988	24 August 1987
DOM. PHYTOPLANKTON (% TOTAL) #1	DINOBRYON 80%	CERATIUM 40%
#2	LYNGBYA 20%	DINOBRYON 30%
#3		
PHYTOPLANKTON ABUNDANCE (cells/mL)		3580.0
CHLOROPHYLL-A (µg/L)		58.57
DOM. ZOOPLANKTON (% TOTAL) #1	SPARSE - NO DOMINANT	KERATELLA 37%
#2		KELLICOTTIA 26%
#3		NAUPLII LARVAE 14%
ROTIFERS/LITER	0	283
MICROCRUSTACEA/LITER	4	82
ZOOPLANKTON ABUNDANCE (#/L)	6	365
VASCULAR PLANT ABUNDANCE		Common
SECCHI DISK TRANSPARENCY (m)		1.7
BOTTOM DISSOLVED OXYGEN (mg/L)	0.2	0.2
BACTERIA (fecal col., #/100 ml) #1		30
#2		
#3		

SUMMER THERMAL STRATIFICATION:

weakly stratified

Depth of thermocline (m): 2.6
Hypolimnion volume (m^3): None

CHEMICAL:

Lake: SANDY POND
Town: BEDFORD

	2 March 1988		24 August 1987		
DEPTH (m)	1.5	2.5	1.0		2.5
pH (units)	5.7	5.7	6.4		6.2
A.N.C. (Alkalinity)	6.0	6.8	4.8		4.7
NITRATE NITROGEN	0.15	< 0.05	< 0.05		< 0.05
TOTAL KJELDAHL NITROGEN	0.58	0.58	0.68		1.08
TOTAL PHOSPHORUS	0.035	0.038	0.029		0.031
CONDUCTIVITY (μ mhos/cm)	45.7	48.9	54.9		54.3
APPARENT COLOR (cpu)	65	65	54		54
MAGNESIUM			0.70		
CALCIUM			3.0		
SODIUM			4.9		
POTASSIUM			0.40		
CHLORIDE	6	6	9		9
SULFATE	3	3	3		3
TN : TP	21	15	23		35
CALCITE SATURATION INDEX			3.7		

All results in mg/L unless indicated otherwise

TROPHIC CLASSIFICATION: 1987

D.O.	S.D.	PLANT	CHL	TOTAL	CLASS
5	3	2	5	15	Eutro.

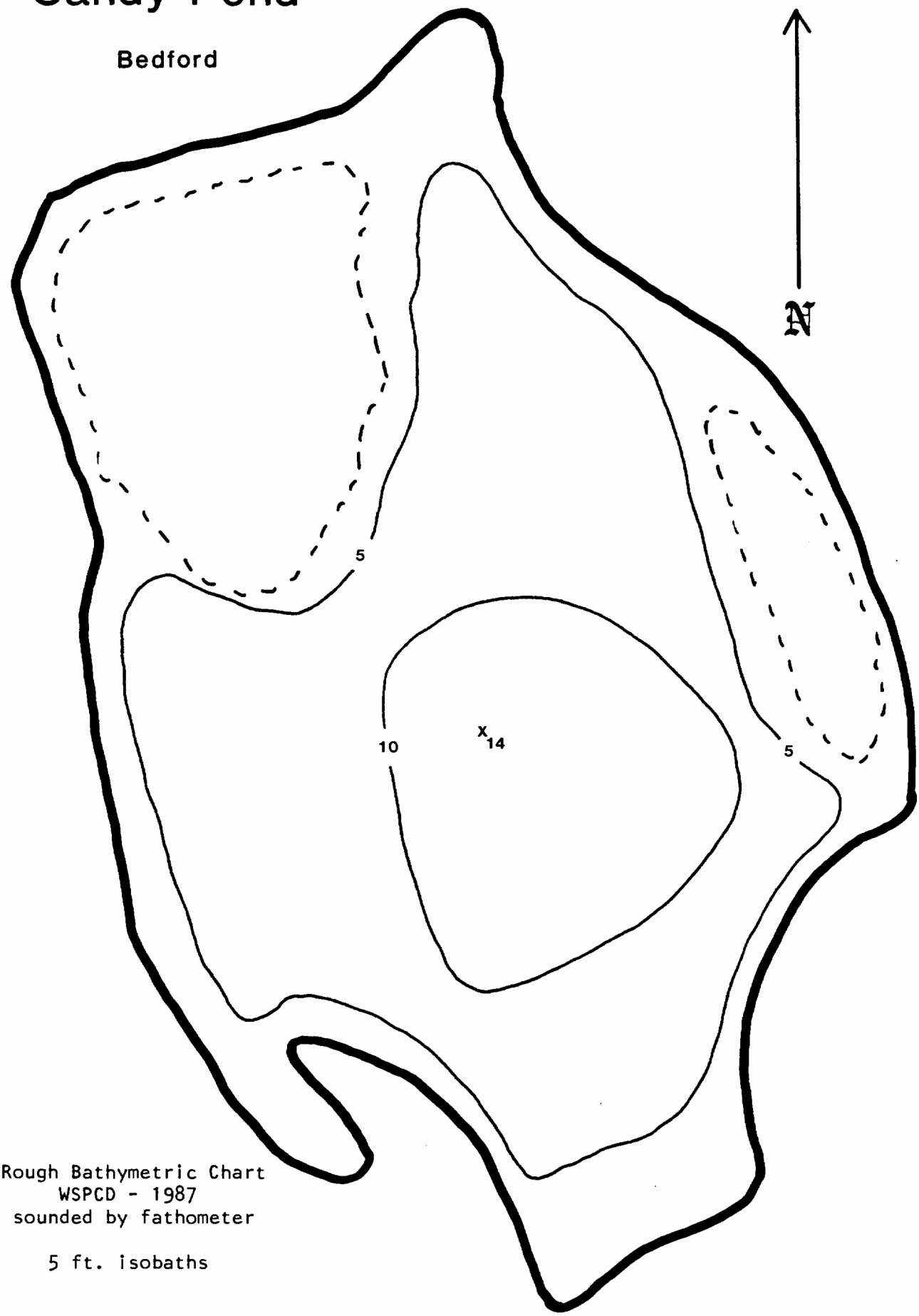
COMMENTS:

1. This is a small shallow pond that is heavily used by two juvenile camps (Camp Allen and Foster Day Camp). It has a relatively high algae level and low water clarity.

2. Cryptomonads (35%), bluegreens (20%) and greens (20%) were the dominant families in the whole-water phytoplankton. Dominant genera were Chroomonas (20%) Lyngbya (15%), and Cryptomonas (10%).

Sandy Pond

Bedford



Rough Bathymetric Chart
WSPCD - 1987
sounded by fathometer

5 ft. isobaths

0 .1 km

FIELD DATA SHEET

LAKE: SANDY POND
DATE: 08/24/87

TOWN: BEDFORD
WEATHER: BREEZY & SUNNY

	DEPTH (M)	TEMP (°C)	*DISSOLVED OXYGEN	OXYGEN SATURATION
	0.1	22.0	5.1	58 %
	1.0	21.5	4.7	52 %
	2.0	21.0	4.1	46 %
	3.0	14.9	0.2	2 %
	3.5	12.5	0.2	2 %

SECCHI DISK (m): 1.7

BOTTOM DEPTH (m): 3.7

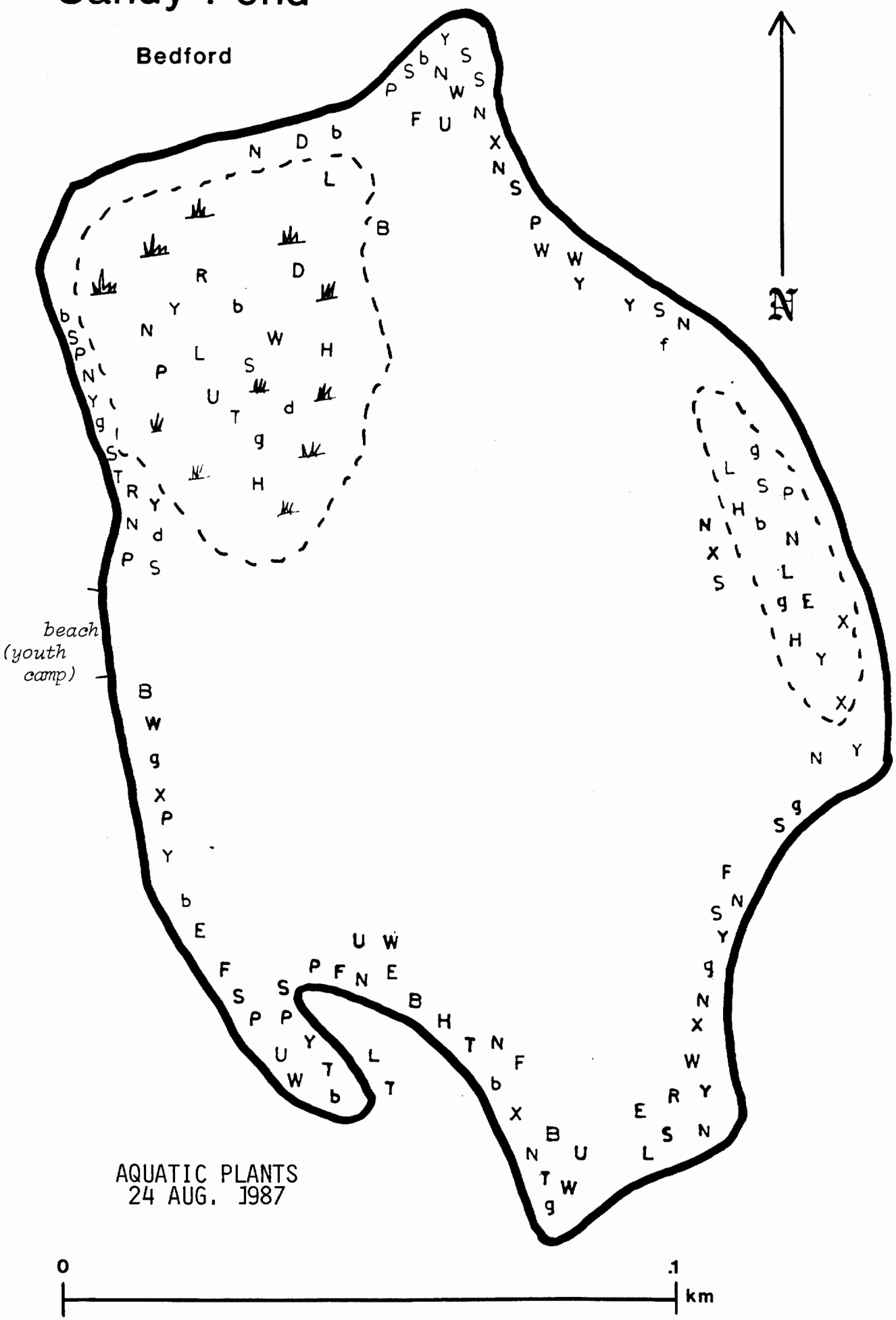
TIME: 1200

COMMENTS:

*Dissolved oxygen values are in mg/L

Sandy Pond

Bedford



AQUATIC PLANT SURVEY

LAKE: SANDY POND TOWN: BEDFORD DATE: 08/24/87

Key	PLANT NAME		ABUNDANCE
	GENERIC	COMMON	
P	Pontederia cordata	Pickerelweed	Common
d	Dulichium arundinaceum	Three-way sedge	Scattered
N	Nymphaea	White water lily	Common
S	Sparganium	Bur reed	Common
R	Drosera rotundifolia	Sundew	Scattered
Y	Nuphar	Yellow water lily	Scattered
T	Typha	Cattail	Scattered
g	Myrica gale	Sweet gale	Common
b	Scirpus	Bulrush	Scattered
L	Chamaedaphne calyculata	Leatherleaf	Common
W	Potamogeton	Pondweed	Common
D	Decodon verticillatus	Swamp loosestrife	Common
B	Brasenia schreberi	Water shield	Sparse
X		Sterile thread-like leaf	Common
U	Utricularia	Bladderwort	Scattered
F	Nymphoides cordatum	Floating heart	Sparse
H	Hypericum	St. John's-wort	Scattered

OVERALL ABUNDANCE: Common

GENERAL OBSERVATIONS: