DEPARTMENT of ENVIRONMENTAL SERVICES
Water Division - Watershed Management Bureau

LAKE TROPHIC DATA

MORPHOMETRIC:

Lake:	BEARCAMP POND	Lake Area (ha):	67.58
Town:	SANDWICH	Maximum depth (m):	9.2
County:	Carroll	Mean depth (m):	2.7
River Basin:	Saco	Volume (m^3):	1769500
Latitude:	43°48'57" N	Relative depth:	1.0
Longitude:	71°22'15" W	Shore configuration:	1.45
Elevation (ft):	596	Areal water load (m/yr):	22.53
Shore length (m):	4200	Flushing rate (yr^{-1}):	8.50
Watershed area (ha):	3108.0	P retention coeff.:	0.46
% watershed ponded:	< 0.10	Lake type:	natural w/dam

BIOLOGICAL:		3 March 1999	12 August 1998
DOM. PHYTOPLANKTON (% TOTAL)	#1	ASTERIONELLA 70%	SYNURA 40%
	#2	(ALL ALGAE SPARSE)	CHRYSOSPHAERELLA 35%
	#3		DINOBRYON 10%
PHYTOPLANKTON ABUNDANCE (units/mL)			
CHLOROPHYLL-A (μg/L)			6.42
DOM. ZOOPLANKTON (% TOTAL)	#1	SPARSE - NO DOMINANT	NO ZOOPLANKTON COUNTS
	#2		
	#3		
ROTIFERS/LITER		2	
MICROCRUSTACEA/LITER		5	
ZOOPLANKTON ABUNDANCE (#/L)		11	
VASCULAR PLANT ABUNDANCE			Abundant
SECCHI DISK TRANSPARENCY (m)			3.5
BOTTOM DISSOLVED OXYGEN (mg/L)		4.6	0.0
BACTERIA (E. coli, #/100 ml)	#1		
	#2		
	#3		

SUMMER THERMAL STRATIFICATION:

stratified

Depth of thermocline (m): 8.5
Hypolimnion volume (m^3) : 800
Anoxic volume (m^3) : 800

CHEMICAL:

Lake: BEARCAMP POND
Town: SANDWICH

	3 March 1999		12 August 1998		
DEPTH (m)	3.0	6.0	2.0		6.0
pH (units)	5.9	5.8	6.3		5.7
A.N.C. (Alkalinity)	3.1	4.3	4.0		3.6
NITRATE NITROGEN	0.12	0.10	< 0.05		< 0.05
TOTAL KJELDAHL NITROGEN	0.10	0.20			
TOTAL PHOSPHORUS	0.008	0.004	0.007		0.011
CONDUCTIVITY (µmhos/cm)	24.4	28.4	19.2		20.5
APPARENT COLOR (cpu)	29	29	34		49
MAGNESIUM			0.29		
CALCIUM			2.0		
SODIUM			1.1		
POTASSIUM			< 0.40		
CHLORIDE	< 2	< 2	< 2		< 2
SULFATE	3	4	2		3
TN : TP	28	75			
CALCITE SATURATION INDEX			4.1		

All results in mg/L unless indicated otherwise

TROPHIC CLASSIFICATION: 1998

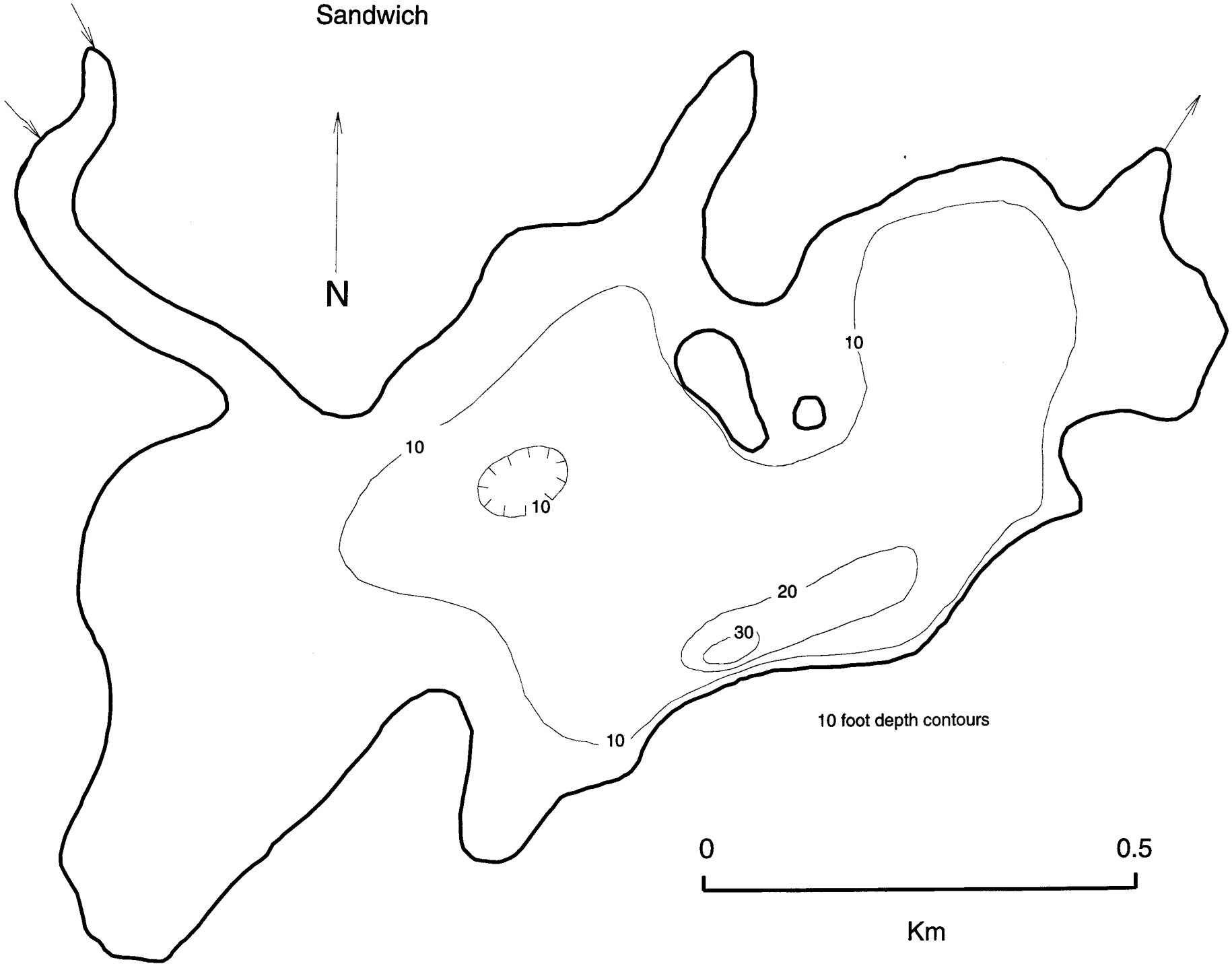
D.O.	S.D.	PLANT	CHL	TOTAL	CLASS
4	2	5	1	12	Meso.

COMMENTS:

1. This pond was previously surveyed and classified in 1982. There was no change in the classification but there were increased trophic points due to less bottom dissolved oxygen and more abundant macrophyte growth.
2. There is a 10 mph speed limit on the pond.
3. Bearcamp Pond has participated in VLAP since 1991 and trophic quality has remained relatively stable during this time.
4. Launch site was suitable for small boats only; a town beach was present.
5. Shoreline was mostly undeveloped; approximately 12 cottages present.

Bearcamp Pond

Sandwich



FIELD DATA SHEET

LAKE: BEARCAMP POND TOWN: SANDWICH
DATE: 08/12/1998 WEATHER:

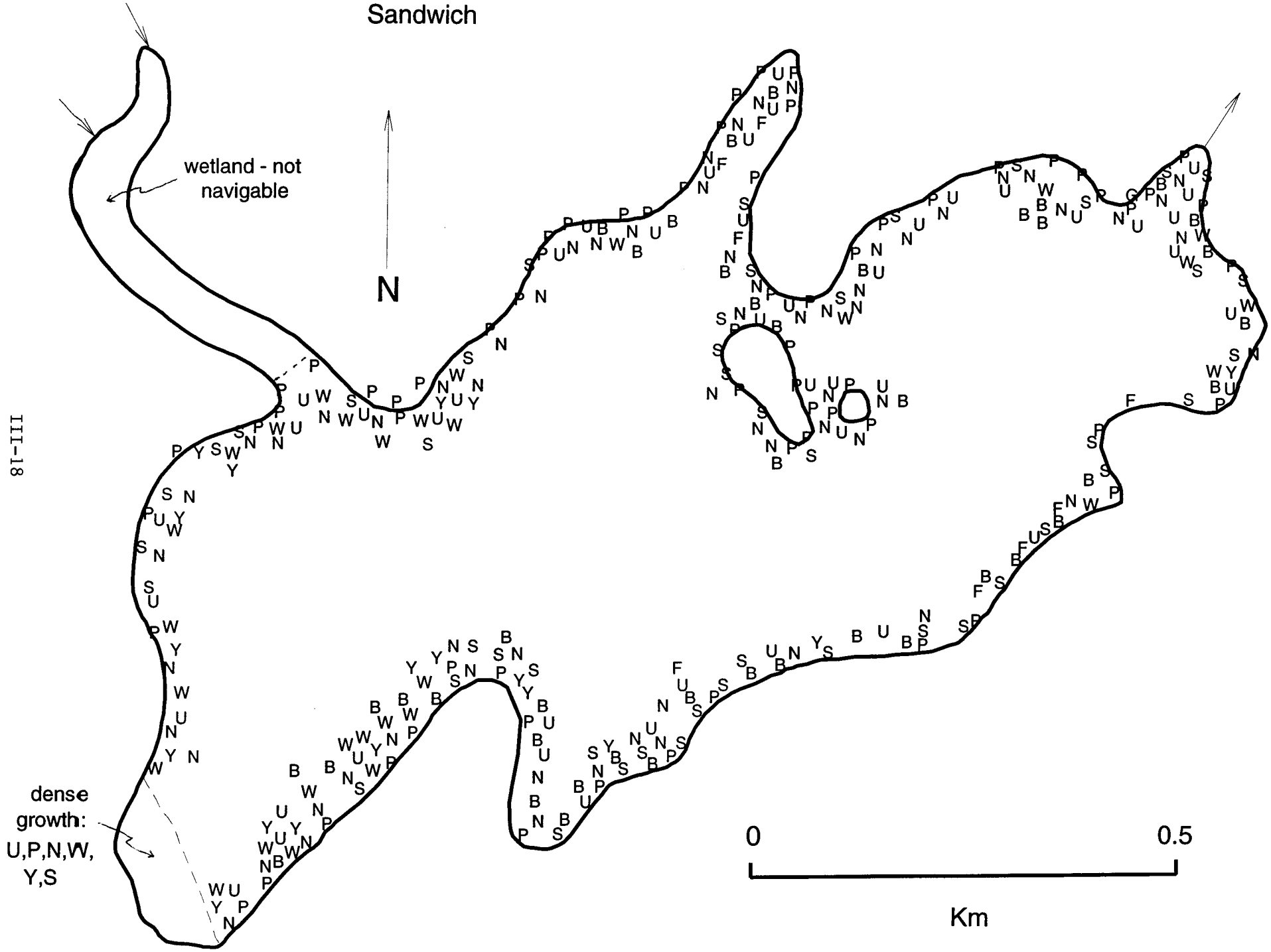
	DEPTH (M)	TEMP (°C)	*DISSOLVED OXYGEN	OXYGEN SATURATION
	0.1	23.4	8.6	100 %
	1.0	22.1	8.6	97 %
	2.0	19.1	6.4	68 %
	3.0	15.9	7.3	72 %
	4.0	14.1	6.0	58 %
	5.0	13.5	5.3	50 %
	6.0	13.1	5.9	55 %
	7.0	11.5	3.6	32 %
	8.0	10.1	2.1	19 %
	9.0	8.4	0.5	4 %
	10.0	8.3	0.0	0 %

SECCHI DISK (m): 3.5 COMMENTS:
BOTTOM DEPTH (m): 10.4
TIME:

*Dissolved oxygen values are in mg/L

Bearcamp Pond

Sandwich



AQUATIC PLANT SURVEY

LAKE: BEARCAMP POND TOWN: SANDWICH DATE: 08/12/1998

Key	PLANT NAME		ABUNDANCE
	GENERIC	COMMON	
P	Pontederia cordata	Pickerelweed	Common/Abun
B	Brasenia schreberi	Water shield	Common
S	Sparganium	Bur reed	Scat/Common
G	Gramineae	Grass family	Sparse
N	Nymphaea	White water lily	Common/Abun
U	Utricularia	Bladderwort	Common
W	Potamogeton natans	Floating-leaf pondweed	Common
Y	Nuphar	Yellow water lily	Scattered
F	Nymphoides cordatum	Floating heart	Sparse

OVERALL ABUNDANCE: Abundant

GENERAL OBSERVATIONS:

1. The dark, overcast skies and tea-colored water limited visibility into the water. Because of this, submerged plants – especially bladderwort – may have been more abundant than indicated and other submerged species may have been missed.

2. STLs were common along the bottom at the east end of the pond.