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

LAKE TROPHIC DATA

MORPHOMETRIC:

Lake:	LONG POND, LITTLE	Lake Area (ha):	7.32
Town:	BARRINGTON	Maximum depth (m):	5.8
County:	Strafford	Mean depth (m):	2.5
River Basin:	Coastal	Volume (m^3):	180500
Latitude:	43°16'00" N	Relative depth:	1.9
Longitude:	71°01'40" W	Shore configuration:	1.88
Elevation (ft):	250	Areal water load (m/yr):	13.27
Shore length (m):	1800	Flushing rate (yr^{-1}):	5.40
Watershed area (ha):	202.0	P retention coeff.:	0.52
% watershed ponded:	15.2	Lake type:	natural

BIOLOGICAL:		29 January 1992	30 August 1991
DOM. PHYTOPLANKTON (% TOTAL)	#1	DINOBRYON 65%	DINOBRYON 55%
	#2	ASTERIONELLA 15%	ASTERIONELLA 15%
	#3		
PHYTOPLANKTON ABUNDANCE (cells/mL)			1065
CHLOROPHYLL-A (µg/L)			10.00
DOM. ZOOPLANKTON (% TOTAL)	#1	KERATELLA 46%	KELLICOTTIA 32%
	#2	KELLICOTTIA 38%	NAUPLIUS LARVAE 23%
	#3	CYCLOPOID COPEPODS 9%	CYCLOPOID COPEPODS 21%
ROTIFERS/LITER		142	151
MICROCRUSTACEA/LITER		17	166
ZOOPLANKTON ABUNDANCE (#/L)		161	317
VASCULAR PLANT ABUNDANCE			Common
SECCHI DISK TRANSPARENCY (m)			2.1
BOTTOM DISSOLVED OXYGEN (mg/L)		0.0	0.4
BACTERIA (fecal col., #/100 ml)	#1		
	#2		
	#3		

SUMMER THERMAL STRATIFICATION:

stratified

Depth of thermocline (m): 3.8
Hypolimnion volume (m^3) : None
Anoxic volume (m^3) : 33000

CHEMICAL:

Lake: LONG POND, LITTLE
Town: BARRINGTON

	29 January 1992		30 August 1991		
DEPTH (m)	2.0	4.0	1.5	3.5	5.0
pH (units)	5.9	5.8	5.8	5.5	5.8
A.N.C. (Alkalinity)	3.8	5.1	3.0	2.7	10.4
NITRATE NITROGEN			< 0.05		< 0.05
TOTAL KJELDAHL NITROGEN					
TOTAL PHOSPHORUS	0.024	0.026	0.028	0.071	0.062
CONDUCTIVITY (µmhos/cm)	53.9	86.0	55.6	60.6	82.5
APPARENT COLOR (cpu)	70	80	55	75	110
MAGNESIUM			0.60		
CALCIUM			3.7		
SODIUM			6.8		
POTASSIUM			0.55		
CHLORIDE	10	18	10		15
SULFATE	4	5	3		3
TN : TP					
CALCITE SATURATION INDEX			4.5		

All results in mg/L unless indicated otherwise

TROPHIC CLASSIFICATION: 1991

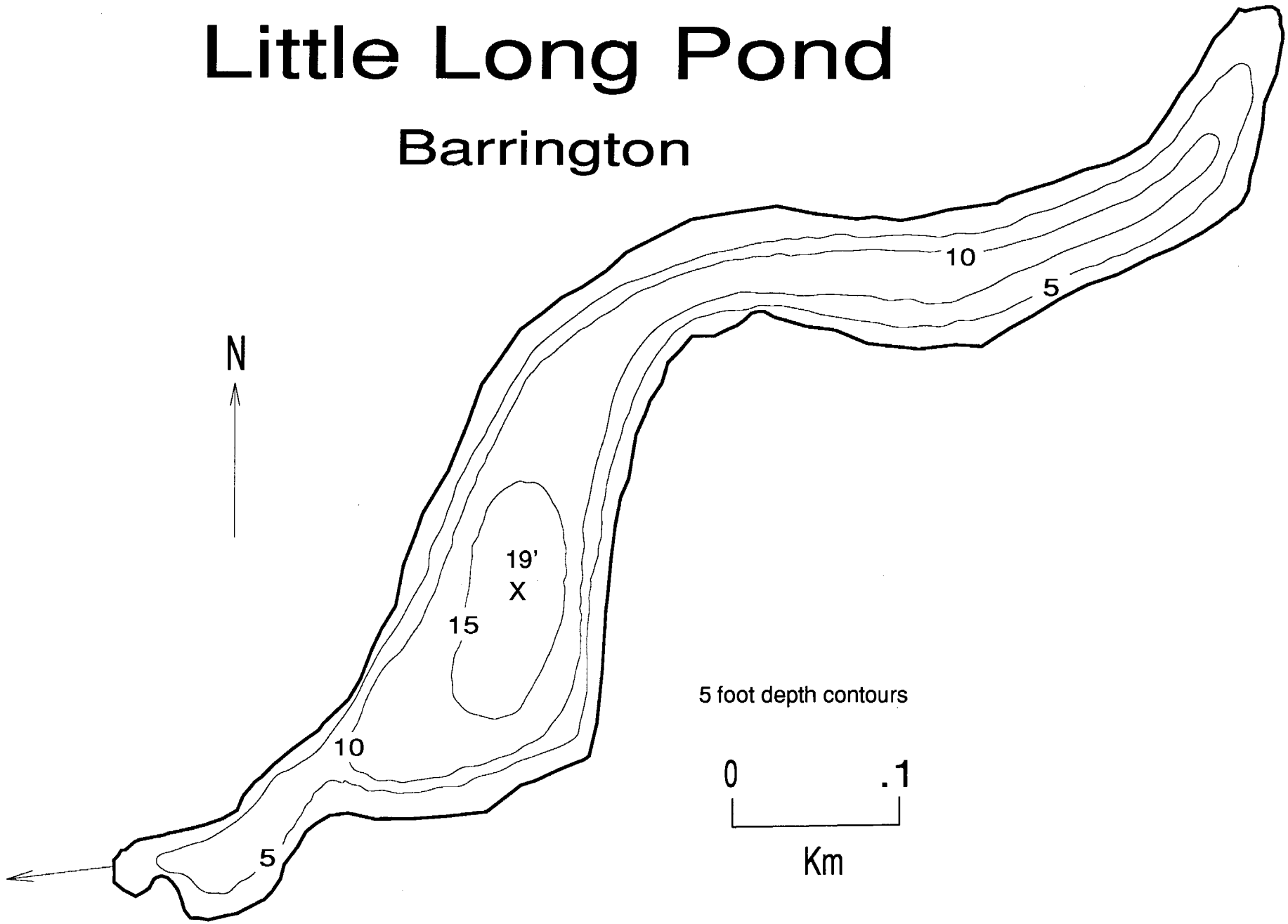
D.O.	S.D.	PLANT	CHL	TOTAL	CLASS
**	3	3	2	8	Meso.

COMMENTS:

1. No boat launch site; small boat or canoe can be put in off the road & paddle 50 feet through a narrow channel in the wetlands to reach open water.
2. One house located near the pond.
3. Dark tea-colored waters.
4. Dominant genera of wholewater plankton were Chroomonas (30%) Cryptomonas (15%) and Schroederia (15%).

Little Long Pond

Barrington



FIELD DATA SHEET

LAKE: LONG POND, LITTLE TOWN: BARRINGTON
DATE: 08/30/91 WEATHER: SUNNY & WARM

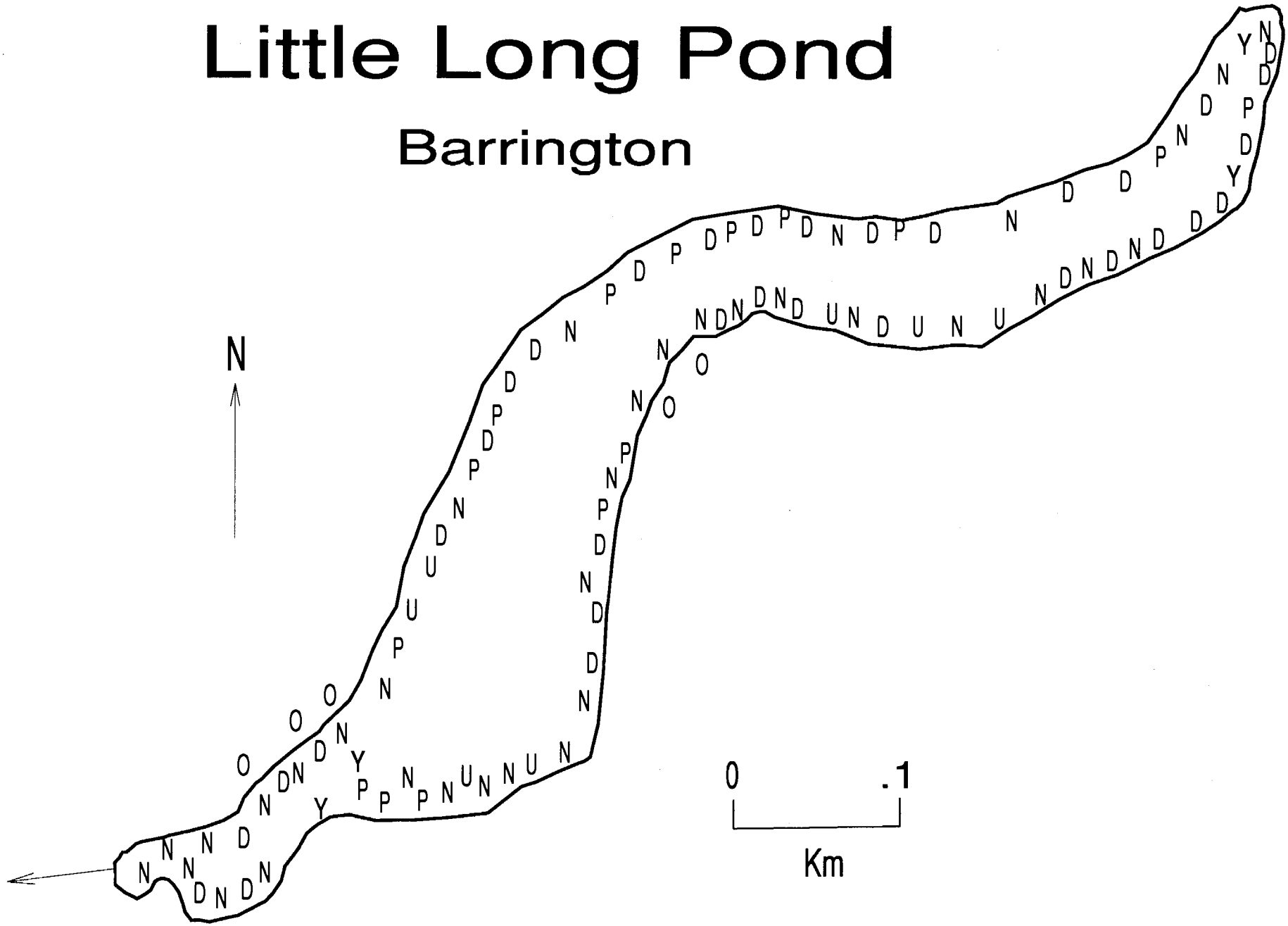
	DEPTH (M)	TEMP (°C)	*DISSOLVED OXYGEN	OXYGEN SATURATION
	0.1	25.8	8.5	102 %
	1.0	24.0	5.2	62 %
	2.0	20.9	2.5	27 %
	3.0	19.0	0.3	3 %
	4.0	14.5	0.3	3 %
	5.0	10.0	0.3	3 %
	5.5	9.0	0.4	3 %

SECCHI DISK (m): 2.1 COMMENTS:
BOTTOM DEPTH (m): 5.8
TIME: 1130

*Dissolved oxygen values are in mg/L

Little Long Pond

Barrington



AQUATIC PLANT SURVEY

LAKE: LONG POND, LITTLE TOWN: BARRINGTON DATE: 08/30/91

Key	PLANT NAME		ABUNDANCE
	GENERIC	COMMON	
D	Decodon verticillatus	Swamp loosestrife	Common
P	Pontederia cordata	Pickerelweed	Scattered
N	Nymphaea	White water lily	Common
Y	Nuphar	Yellow water lily	Scattered
U	Utricularia	Bladderwort	Sparse
O	Cephalanthus occidentalis	Buttonbush	Sparse

OVERALL ABUNDANCE: Common

GENERAL OBSERVATIONS:

1. Most of the shoreline was surrounded by wetlands. Much of the wetlands was swamp maple and other woody plants.
2. The plants listed are only those found in the pond; wetland plants are not listed.
3. Most of the pond had plants along the shore, out to about 10-20 feet.