UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

BASELINE WATER QUALITY OF LONG MEADOW LAKE, PONDS AP-9 AND AP-10 AND BLACK DOG CREEK, HENNEPIN AND DAKOTA COUNTIES, MINNESOTA

By Gregory A. Payne

Open-File Report 77-424

Prepared in cooperation with the
Minnesota Department of Transportation

St. Paul, Minnesota
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ENGLISH TO METRIC (SI) SYSTEM CONVERSION FACTORS

Readers who prefer to use the International System of Units (SI) rather than customary units may use the conversion factors listed below:

Multiply customary unit	By	to obtain SI unit
feet	.3048	meters
cubic feet per second	.02832	cubic meters per second
acre-feet	1233	cubic meters
tons	907.2	kilograms

Explanation of abbreviations used in this report.

Deg C	- degrees Celsius	P	- phosphorous
mg/l	- milligrams per liter	C	- carbon
ac-ft	- acre feet	SiO_2	- silica
JTU	- Jackson Turbidity Units	Ca	- calcium
ug/g	- micrograms per gram	$CaCO_3$	- calcium carbonate
g/kg	- grams per kilogram	Na	- sodium
mg/kg	- milligrams per kilogram	Cl	- chloride
cfs	- cubic feet per second	N	- nitrogen

BASELINE WATER QUALITY OF LONG MEADOW LAKE, PONDS AP-9 AND AP-10 AND BLACK DOG CREEK, HENNEPIN AND DAKOTA COUNTIES, MINNESOTA

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ABSTRACT

Long Meadow Lake, Black Dog Creek, and Ponds AP-9 and AP-10 which lie in an area designated for a trunk highway bridge crossing the Minnesota River, were sampled for baseline water quality prior to construction of the bridge. Data collected show that dissolved-solids fluctuate seasonally. Dissolved oxygen ranged from less than 1 milligram per liter under an ice cover to 13.9 milligrams per liter in the September sample at site 4 in Long Meadow Lake. The phytoplankton analyses showed pulses in algae populations, blue-green algae being the dominant type in at least one sample from each of the water courses.

INTRODUCTION

Purpose

Long Meadow Lake, Ponds AP-9 and AP-10, and Black Dog Creek are located in Hennepin and Dakota Counties in southeastern Minnesota (fig. 1). These water courses lie in an area designated for construction of the Cedar Avenue South (Trunk Highway 36) bridge crossing the Minnesota River.

The purpose of study was to define the current chemical and biological quality of Long Meadow Lake, Ponds AP-9 and AP-10, and Black Dog Creek. Data collected during and after bridge construction

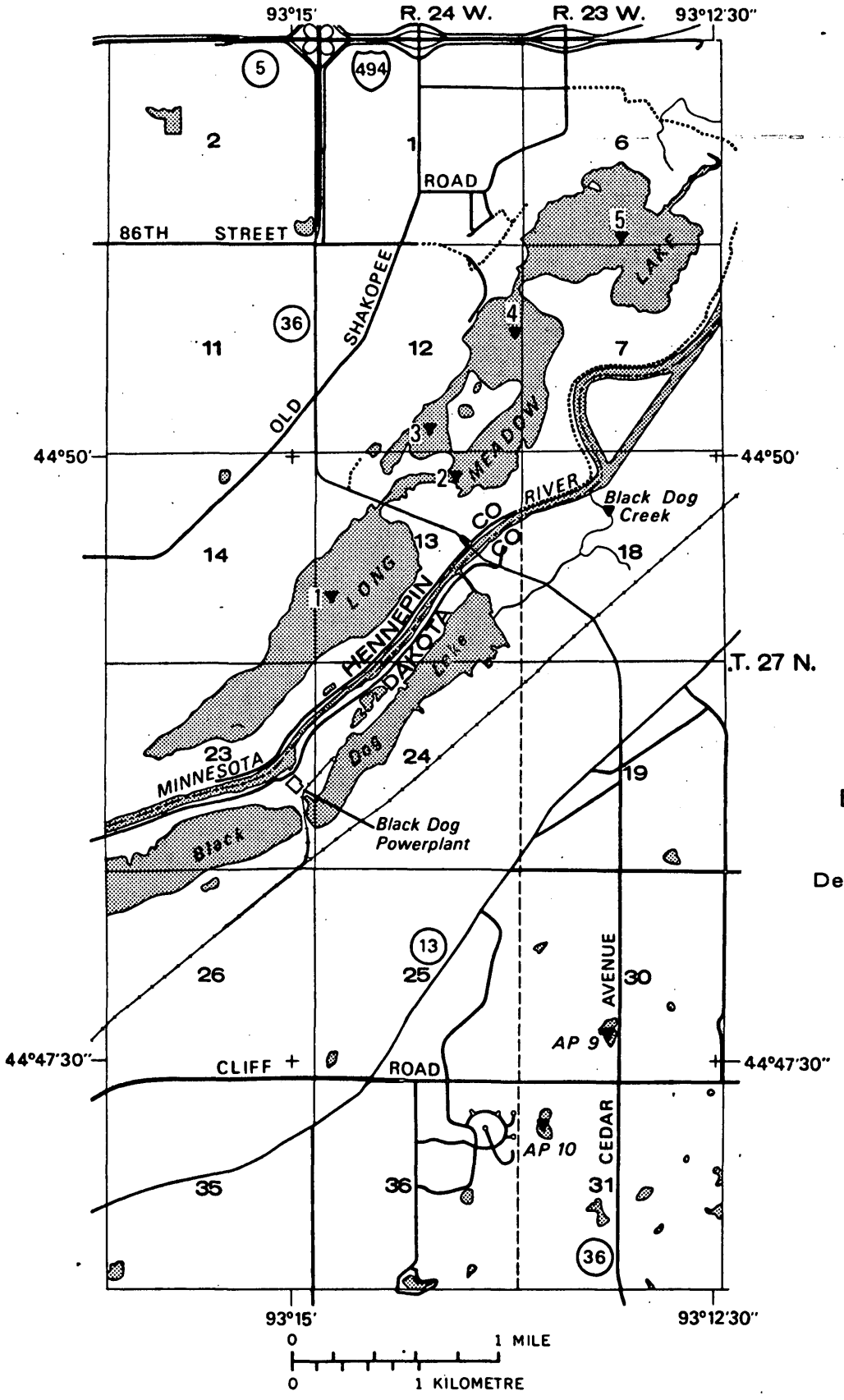

Figure 1.--Sampling sites on Long Meadow Lake, Black Dog Creek, Pond AP-9 and Pond AP-10.

will be compared with those presented in this report to de ermine the effects of construction on water quality. The study w made by the U.S. Geological Survey in cooperation with the Minne ota Department of Transportation.

Geographic Setting

Topographic relief is about 350 feet, ranging from less than 700 feet above sea level along the flood plain of the Minnesota River to about 1,050 feet atop the morainic hills in the southeastern part of the area.

Black Dog Creek and Long Meadow Lake lie in the flood plain of the Minnesota River. Formation of leveelike deposits along the river during floods prevented drainage of the flood plain, thereby forming the lake.

Ponds AP-9 and AP-10 are in the end moraine formed at the south limit of the Superior and Rainy lobes of Wisconsin glaciation. The moraine is characterized by knob and kettle topography, with small ponds occupying many of the kettles.

Hydrologic Setting

Long Meadow Lake, Pond AP-9 and Pond AP-10 are shallow and have littoral zones that extend across their entire basins. Water levels of Long Meadow Lake and Ponds AP-9 and AP-10 fluctuate seasonally, but depths were generally less than 4 feet. Emergent vegetation essentially divides Long Meadow Lake into several small open-water areas.

Long Meadow Lake receives inflow from springs and storm water. At high stages the Minnesota River overflows into the lake. Water discharges through an outlet at its eastern lobe.

Ponds AP-9 and AP-10 receive overland runoff but have no outlets.

Black Dog Creek receives water directly from Black Dog Lake and indirectly from the Minnesota River. Minnesota River water is pumped into Black Dog Lake by a nearby electrical generating plant (fig. 1). Eleven discharge measurements (table 2) were made on the creek during this study. Measured discharges ranged from 1.5 cubic feet per second to 37 cubic feet per second.

Scope

Long Meadow Lake was sampled near the surface at the five sites shown in figure 1. Each site was visited four times: summer, late fall, before spring breakup, and after spring breakup. Sites 3, 4, and 5 were omitted from the fourth sampling because of low water levels.

Ponds AP-9 and AP-10 were sampled near the surface three times; summer, late fall, and winter. Black Dog Creek was sampled monthly from August 1975 to June 1976.

Field determinations included pH, specific conductance, DO (dissolved oxygen), water temperature, fecal coliform and fecal *Streptococci* bacteria, and air temperature.

Concentrations for the nitrogen series, phosphorous, alkalinity, calcium, silica, sodium, chloride, TOC (total organic carbon), turbidity, oil and grease, and dissolved and suspended solids were determined in the laboratory.

Phytoplankton samples were collected and analyzed in the laboratory for codominant genera and cell density.

Bottom material was sampled at each site during the late fall and analyzed for organic carbon, nitrogen, phosphorous, oil and grease, aluminum, arsenic, cadmium, chromium, copper, lead, mercury, and zinc.

METHODS

Samples for physical and chemical parameters were collected and determined by methods reported in Brown and others (1970) and Goerlitz and Brown (1972). DO concentration was determined by using a DO meter and the percent DO saturation for elevation and water temperature calculated as described in American Public Health Association, and others (1971, p. 480).

Fecal coliform and fecal *Streptococci* were determined by the membrane filter technique described by Slack and others (1973). Phytoplankton concentrations were determined by methods described by Slack and others (1973).

DATA RESULTS

Physical and Chemical Characteristics

The results of the field and laboratory determinations are shown in tables 1-3. In addition, selected characteristics have been presented graphically (figs. 2-6).

Concentrations of several constituents were found to be variable. For example, dissolved-solids concentrations in Long Meadow Lake fluctuates with respect to site and season, as shown in figure 2.

Dissolved-solids concentrations and water discharge in Black Dog Creek are shown in figure 3. It is likely that data from Black Dog Creek reflects water quality in Black Dog Lake, which is affected by water pumped from the Minnesota River.

The water courses sampled in this study are primarily of the calcium bicarbonate type, although sodium and chloride and major constituents in some samples. The fluctuating chloride concentrations in Long Meadow Lake and Black Dog Creek (fig. 4) suggest

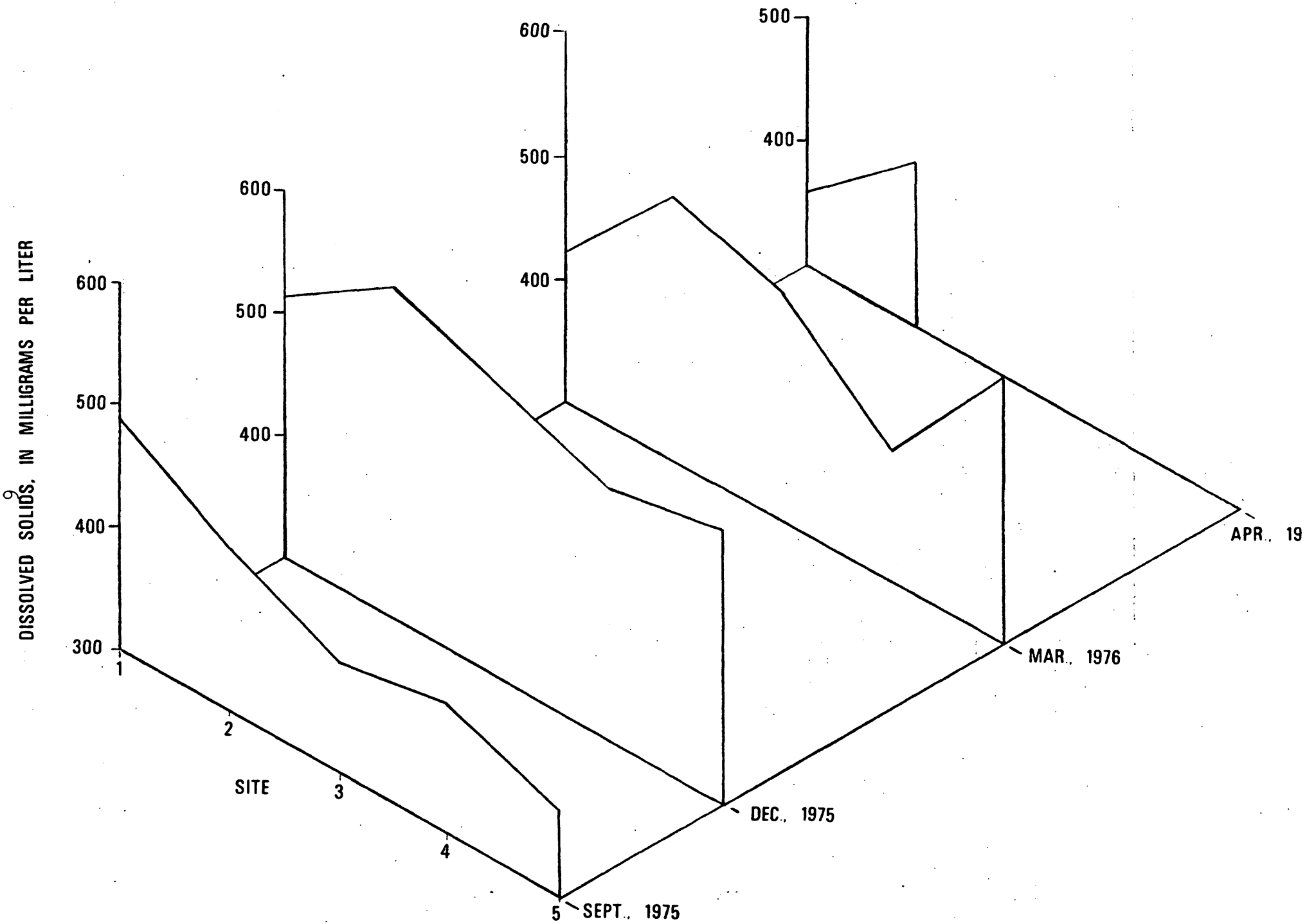

Figure 2.--Dissolved-solids concentrations in Long Meadow Lake.

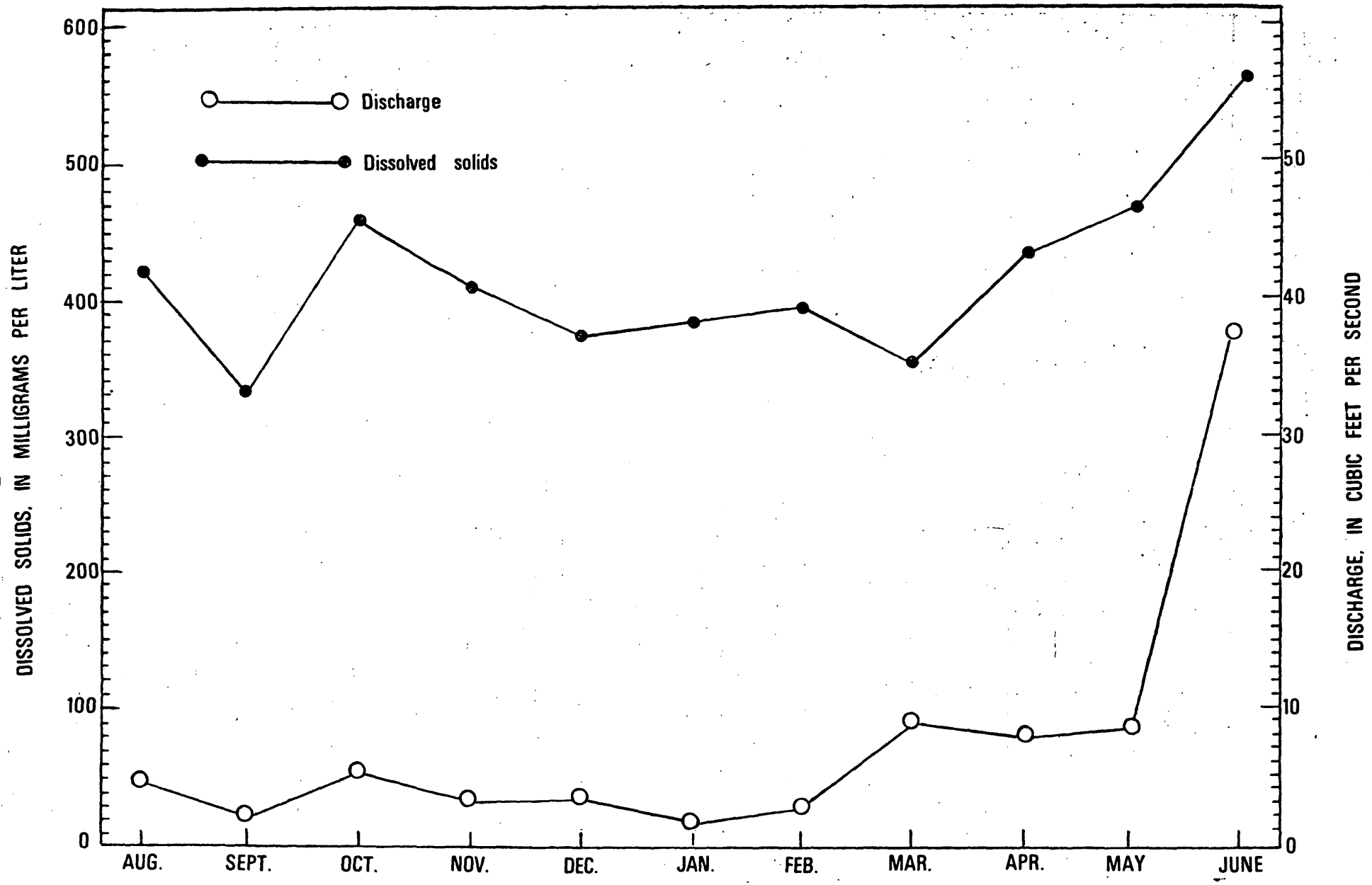

Figure 3.--Dissolved-solids concentrations and water discharges in Black Dog Creek, August 1975 to June 1976.

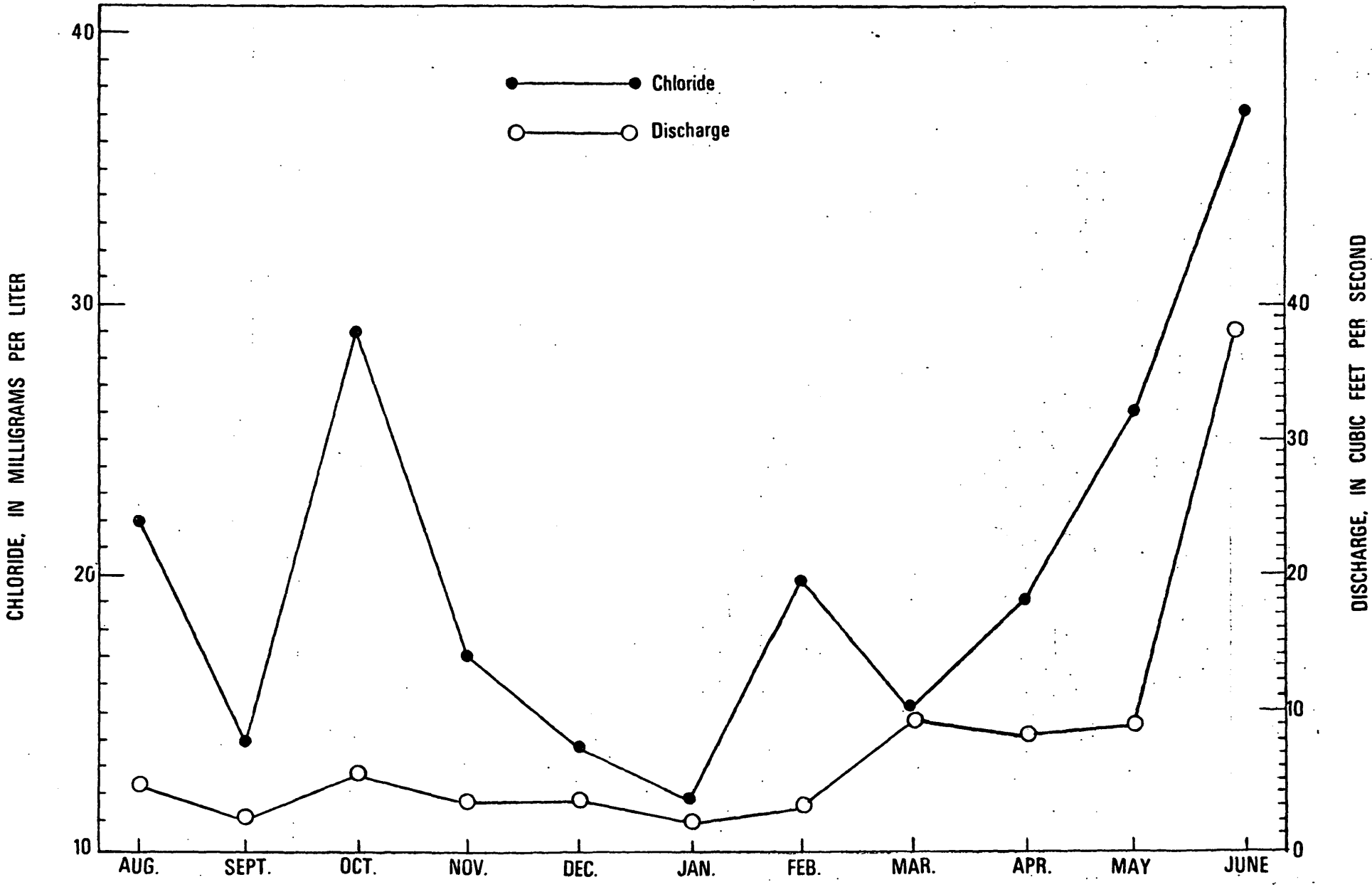

Figure 4.--Chloride concentrations and water discharges in Black Dog Creek, August 1975 to June 1976.

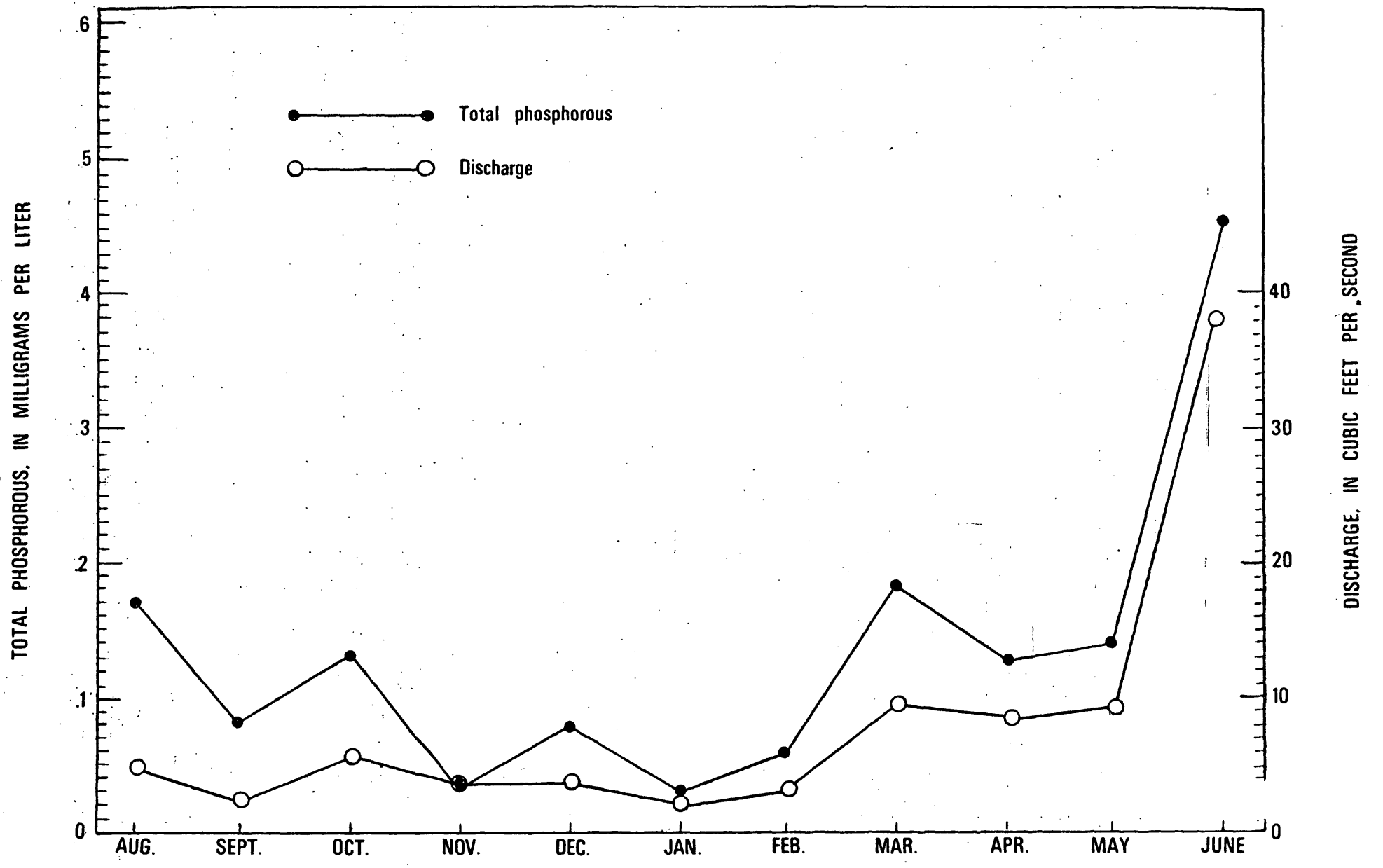

Figure 5.--Total phosphorous concentrations and water discharges in Black Dog Creek, August 1975 to June 1976.

influence from urban runoff.

The water concentrations of phosphorous were highest in late winter in Long Meadow Lake and Pond AP-9. Phosphorous concentrations were highest in late summer in Pond AP-10. Total phosphorous concentrations in Black Dog Creek are shown in figure 5. Total and dissolved phosphorous concentrations increased significantly during a high discharge period in Black Dog Creek in June.

DO concentrations for a particular water body will vary daily as well as seasonally because of factors such as water temperature, photosynthetic activity, and oxygen consumption. The percent DO saturation is, therefore, often more useful than the DO concentration when comparing oxygen levels over a period of time.

Table 1 shows that DO levels in Long Meadow Lake are high in late summer (Sept. 17), lower in late fall (Dec. 2), and much lower in late winter (March 10). DO saturation values above 100 percent, found in Long Meadow Lake in late summer, are probably due to a high level of photosynthesis. The low value at site 5 on September 17 was probably caused by a dense surface accumulation of floating aquatic plants. Shading from these plants limit light penetration, thereby reducing oxygen production by photosynthesis. Restricted oxygen production, in combination with continuous plant respiration, probably caused the lower value at site 5. The March DO values for Long Meadow Lake were much lower than those in previous samples. Reduction of photosynthesis due to snow and ice cover, chemical and biological oxidation, and reduced reaeration because of ice cover are all probable contributing factors to the low values.

Black Dog Creek and Pond AP-9 retained high DO even in late winter. In contrast, Pond AP-10 had low DO, even in late summer. In highly

productive lakes, low pH and DO follow massive algal blooms (Hutchinson, 1957, p. 599). Thus, the low observed DO, may have been caused by decompositon of organic material.

The pH values for most of the sites were highest in the late summer samplings, except in Pond AP-10 (tables 1-3). High pH values may be associated with photosynthesis. Algae remove carbon dioxide from solution and convert it into cellular material. The carbonate equilibrium, as it exists in natural waters, is affected in that the carbonate concentration and pH may increase (Symons and others, 1964, p. 18). The decline in pH during late fall and winter can probably be attributed to oxidation of organic material and release of carbon dioxide combined with a decline in photosynthesis.

Samples of bottom material were obtained at each of the sites during the late fall sampling period (tables 4-6). Concentrations of the bottom material constituents generally were highest in the Long Meadow Lake sites. Ponds AP-9 and AP-10 had lower values for most constituents. For example, oil and grease concentrations were much higher in the bottom sediments of Long Meadow Lake and Black Dog Creek, ranging from 2,100 to 3,000 milligrams per kilogram compared with only 2 to 3 milligrams per kilogram in Pond AP-9 and AP-10.

Biological Characteristics

The results of the phytoplankton and bacteria analyses for all sites are listed in tables 7-10. All sites had blue-green algae as the dominant type in at least one of the samplings.

In long Meadow Lake the species compositon varied between sites. At the time of the September sampling, sites 3 and 4 were dominated by blue-green algae, site 2 by diatoms, site 1 about equally by blue-greens and diatoms, and site 5 by diatoms and flagellates. At the time of

the December sampling, diatoms and blue-greens were less abundant, with flagellates and green algae becoming more dominant.

Pulses on variations in algal populations, particularly blue-greens and diatoms, have been reported for many lakes. The pulses seem to be caused by complex interactions among temperature, nutrient supply, and reproductive potential of the plants. The composition of phytoplankton communities vary greatly from one water body to another, and no truly typical community exists (Ried, 1961, p. 294). This is apparent in this study, as Pond AP-9 was dominated by green algae and flagellates on September 19, while Pond AP-10 was dominated by blue-greens on the same day.

On September 19 the cell count in Pond AP-9 was 3,800 cells per milliliter. The several species present represented three groups--diatoms, green algae, and flagellates. By November 20 the cell count increased to 32,000 cells per milliliter, and 99 percent of the cells were a blue-green type, represented by a single genus--*Anacystis*. By March 3 the cell count remained nearly as high, at 30,000 cells per milliliter, but several species were present and the flagellate type was dominant. Pond AP-10 and Black Dog Creek also show pulses in cell counts and variation in dominant groups between samplings. Black Dog Creek, however, shows a trend toward lower cell counts in winter, having diatoms as the dominant type (fig. 6).

SUMMARY

This report presents physical, chemical, and biological data collected from Long Meadow Lake, Black Dog Creek, and Ponds AP-9 and AP-10.

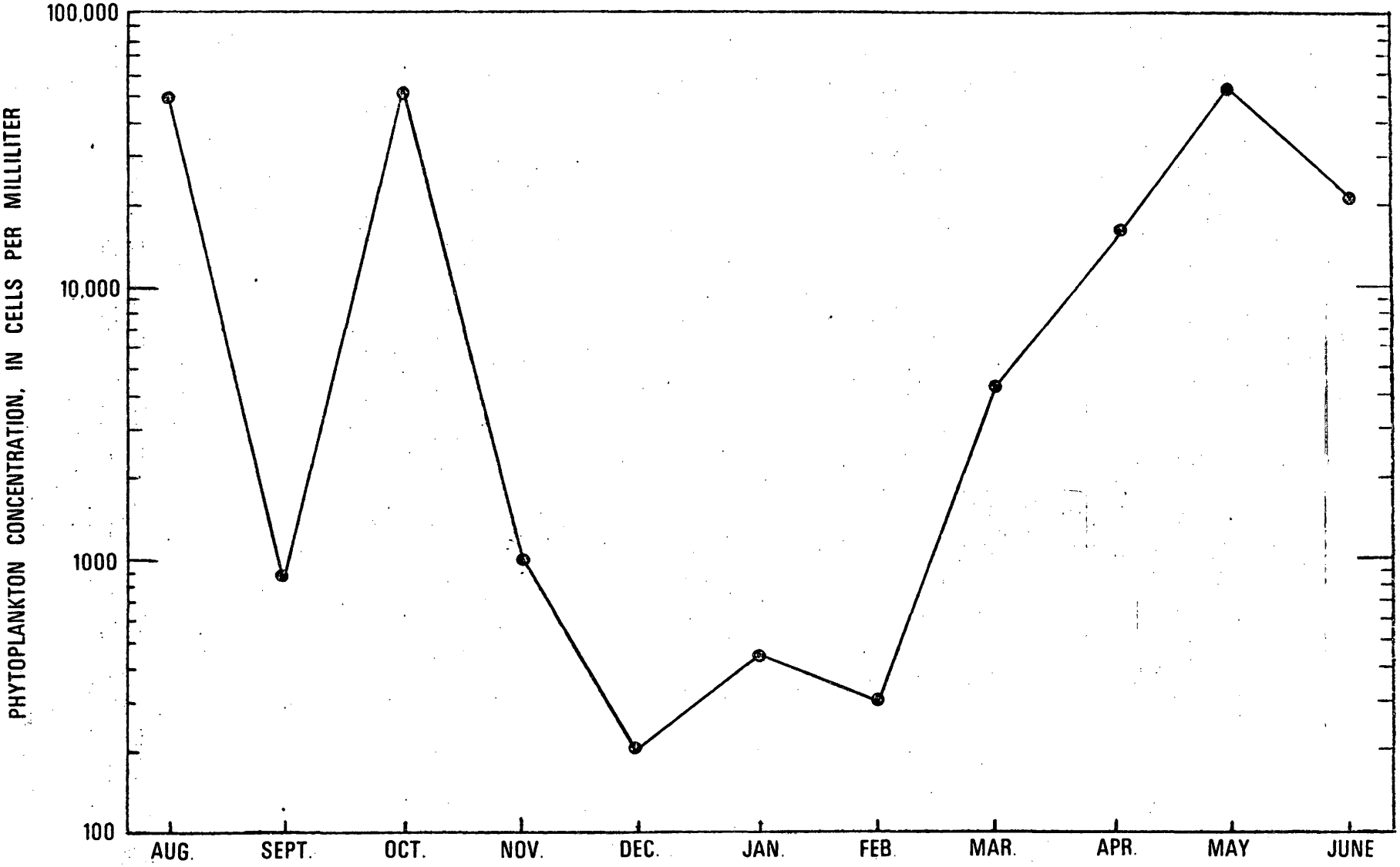

Figure 6.--Concentrations of phytoplankton in samples taken from Black Dog Creek, August 1975 to June 1976.

Concentrations of dissolved-solids fluctuated seasonally and between sampling sites in Long Meadow Lake. Both Long Meadow Lake and Black Dog Creek had higher dissolved-solids than Ponds AP-9 and AP-10. Chlorides were a part of the chemistry of all the waters but to a much lesser extent in Pond AP-10. In contrast, Pond AP-10 had much higher nitrogen and phosphorous concentrations. Total and dissolved phosphorous and nitrogen, as well as dissolved solids were at maximum levels during the period of highest flow in Black Dog Creek.

Low DO was charasteristic of Long Meadow Lake and AP-10 under ice cover in late winter, but not of Black Dog Creek and Pond AP-9.

Pulses of algae populations were characteristic of all the water courses, and blue-green algae dominated at least one sampling period at all sites.

Additional comparative interpretations can be made when data from later sampling, during and after construction, are available.

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APPENDIX

Table 1.--Physical and chemical characteristics of water in Long Meadow Lake.

	Date	Time	Air temperature (Deg C)	Temperature (Deg C)	Dissolved oxygen (mg/l)	Dissolved oxygen percent saturation	pH (Units)	Specific conductance (micromhos)	Dissolved solids (mg/l)	Dissolved solids (tons per ac-ft)	Suspended solids (mg/l)	Turbidity (JTU)	Dissolved calcium (Ca) (mg/l)	Dissolved sodium (Na) (mg/l)	Bicarbonate HCO_3 (mg/l)	Dissolved chloride (Cl) (mg/l)	Total Kjeldahl nitrogen (N) (mg/l)	Suspended Kjeldahl nitrogen (N) (mg/l)	Dissolved Kjeldahl nitrogen (N) (mg/l)	Total nitrite plus nitrate (N) (mg/l)	Dissolved nitrite plus nitrate (N) (mg/l)	Total nitrogen (N) (mg/l)	Total phosphorus (P) (mg/l)	Dissolved phosphorus (P) (mg/l)	Total organic carbon (C) (mg/l)	Dissolved silica (SiO_2) (mg/l)	Oil and grease (mg/l)
Site 1	Sep.17, 1975	1210	19.0	16.5	8.0	84	7.5	818	489	0.67	0	1	--	24	--	64	0.76	0.24	0.52	1.1	1.1	1.9	0.10	0.06	5.3	22	0
	Dec. 2, 1975	1340	6.0	.0	5.5	39	7.3	825	512	.70	7	2	110	21	267	51	1.2	.00	1.3	.03	.02	1.2	.09	.03	16	8.9	0
	Mar.10, 1976	1000	-3.0	.0	.6	4	7.1	704	421	.57	5	4	80	30	356	57	1.3	.20	1.1	.01	.00	1.3	.61	.58	11	11	2
	Apr.14, 1976	1015	16.0	19.0	9.6	105	7.9	600	358	.49	7	3	75	16	327	32	1.3	.42	.88	.00	.00	1.3	.21	.10	10	.7	0
Site 2	Sep.17, 1975	1250	19.0	17.0	11.3	119	7.7	730	433	.59	0	2	--	20	--	51	.91	.10	.81	.63	.45	1.5	.14	.07	8.0	15	1
	Dec. 2, 1975	1300	7.0	.0	9.0	63	7.5	900	576	.78	11	4	120	29	271	79	.21	.00	.21	1.1	1.1	1.3	.05	.00	11	19	0
	Mar.10, 1976	1100	-3.0	.0	4.5	32	7.2	870	512	.70	46	12	94	33	393	69	3.4	2.5	.87	.22	.20	3.6	.70	.13	18	14	1
	Apr.14, 1976	1130	26.0	20.0	7.3	82	7.7	745	431	.59	27	12	87	20	345	48	2.3	1.0	1.3	.15	.15	2.5	.26	.06	12	4.5	0
Site 3	Sep.17, 1975	1630	20.0	20.0	12.2	137	8.1	620	391	.53	0	2	--	18	--	45	2.4	1.6	.81	.01	.01	2.4	.07	.01	11	.5	0
	Dec. 2, 1975	1220	7.0	.0	11.5	81	7.4	850	537	.73	23	5	120	25	318	65	.77	.00	.77	.21	.15	.98	.04	.02	15	12	0
	Mar.10, 1976	1200	-2.0	.0	2.9	20	7.2	767	485	.66	61	11	93	28	374	63	3.1	2.7	.39	.06	.06	3.2	.40	.00	22	16	1
Site 4	Sep.17, 1975	1410	20.0	19.0	13.9	153	8.1	640	406	.55	0	1	--	18	--	47	1.0	.24	.76	.02	.02	1.0	.08	.01	8.8	1.1	1
	Dec. 2, 1975	1130	5.0	.0	11.9	84	7.5	810	506	.69	5	2	110	26	201	66	2.2	.50	1.7	.15	.15	2.4	.06	.04	21	10	0
	Mar.10, 1976	1300	1.0	1.0	1.5	11	7.0	634	408	.55	204	32	84	21	390	23	1.8	1.0	.78	.02	.01	1.8	.43	.04	8.9	21	2
Site 5	Sep.17, 1975	1525	20.0	19.0	3.7	41	7.7	590	371	.50	12	5	--	17	--	40	.76	.16	.60	.01	.01	.77	.10	.02	9.8	.6	0
	Dec. 2, 1975	1100	5.0	.0	12.1	85	7.5	845	521	.71	1	2	110	27	373	69	.85	.00	.85	.12	.10	.97	.04	.03	21	8.3	0
	Mar.10, 1976	1430	-1.0	1.0	3.2	23	7.1	798	519	.71	12	8	97	32	407	69	1.3	.83	.47	.01	.01	1.3	.51	.12	11	12	1

Table 2.--Physical and chemical characteristics of water in Black Dog Creek.

Date	Time	Air temperature (Deg C)	Temperature (Deg C)	Dissolved oxygen (mg/l)	Dissolved oxygen percent saturation	pH (Units)	Instantaneous discharge (cfs)	Specific conductance (micromhos)	Dissolved solids (residue at 180 C (mg/l)	Dissolved solids (tons per ac-ft)	Suspended solids (mg/l)	Turbidity (JTU)	Dissolved calcium (Ca) (mg/l)	Dissolved sodium (Na) (mg/l)	Bicarbonate HCO_3 (mg/l)	Dissolved chloride (Cl) (mg/l)	Total Kjeldahl nitrogen (N) (mg/l)	Suspended Kjeldahl nitrogen (N) (mg/l)	Dissolved Kjeldahl nitrogen (N) (mg/l)	Total nitrite plus nitrate (N) (mg/l)	Dissolved nitrite plus nitrate (N) (mg/l)	Total nitrogen (N) (mg/l)	Total phosphorus (P) (mg/l)	Dissolved phosphorus (P) (mg/l)	Total organic carbon (C) (mg/l)	Dissolved silica (SiO_2) (mg/l)	Oil and grease (mg/l)	Dissolved solids (tons per day)
Aug.27 1975	1045	19.5	14.0	8.9	88	8.0	4.3	715	424	.58	40	11	85	17	--	22	0.67	0.33	0.34	0.42	0.42	1.1	0.17	0.11	6.2	21	2	4.92
Sep.18, 1975	1345	19.0	14.5	8.8	88	8.1	1.8	591	330	.45	12	6	71	8.6	--	14	.52	.02	.50	.35	.35	.87	.08	.05	5.7	19	0	1.60
Oct.22, 1975	1200	14.5	9.0	6.6	58	7.8	5.1	710	458	.62	0	7	--	23	--	29	.30	.08	.22	.20	.20	.50	.13	.05	4.8	16	0	6.31
Nov.24, 1975	1015	7.0	.0	13.2	93	7.9	3.0	675	411	.56	1	2	80	9.0	250	17	.45	.00	.45	.50	.45	.95	.03	.00	3.5	19	0	3.33
Dec.23, 1975	0930	7.0	1.0	8.5	60	7.8	3.1	670	376	.51	5	1	82	7.3	243	14	.29	.11	.18	.51	.51	.80	.08	.08	26	20	0	3.13
Jan.20, 1976	1030	-8.0	.0	12.8	90	7.7	1.5	700	386	.53	4	2	78	7.0	260	12	.45	.00	.45	.48	.47	.93	.03	.01	2.4	21	0	1.57
Feb.17 1976	1030	2.0	3.0	13.0	100	7.8	2.5	710	400	.54	5	4	84	10	368	20	.25	.00	.25	.49	.49	.74	.06	.03	4.0	20	0	2.74
Mar.24, 1976	1000	5.5	6.0	9.6	79	7.6	8.9	575	356	.48	45	22	72	10	266	15	1.8	.40	1.4	1.9	1.9	3.7	.19	.10	.0	15	0	5.60
Apr.27, 1976	1000	7.2	8.0	11.2	97	8.2	7.4	537	437	.59	11	7	83	16	308	19	1.0	.49	.51	.26	.25	1.3	.13	.05	8.2	10	0	8.81
May 12, 1976	1030	14.0	12.0	9.2	88	8.1	8.4	771	476	.65	29	12	78	25	310	26	1.3	.71	.59	.09	.09	1.4	.14	.05	12	5.7	0	10.9
June 16, 1976	1100	16.0	20.0	5.2	58	7.7	37	880	561	.76	96	25	80	34	314	37	1.3	.55	.75	1.2	.54	2.5	.45	.22	--	16	0	56.7

Table 3.--Physical and chemical characteristics of water in Ponds AP-9 and AP-10.

	Date	Time	Air temperature (Deg C)	Temperature (Deg C)	Dissolved oxygen (mg/l)	Dissolved oxygen percent saturation	pH (Units)	Specific conductance (micromhos)	Dissolved solids (mg/l)	Dissolved solids (tons per ac-ft)	Suspended solids (mg/l)	Turbidity (JTU)	Dissolved calcium (Ca) (mg/l)	Dissolved sodium (Na) (mg/l)	Bicarbonate HCO_3 (mg/l)	Dissolved chloride (Cl) (mg/l)	Total Kjeldahl nitrogen (N) (mg/l)	Suspended Kjeldahl nitrogen (N) (mg/l)	Dissolved Kjeldahl nitrogen (N) (mg/l)	Total nitrite plus nitrate (N) (mg/l)	Dissolved nitrite plus nitrate (N) (mg/l)	Total nitrogen (N) (mg/l)	Total phosphorus (P) (mg/l)	Dissolved phosphorus (P) (mg/l)	Total organic carbon (C) (mg/l)	Dissolved silica (SiO_2) (mg/l)	Oil and grease (mg/l)
Pond AP-9	Sep.19, 1975	1020	11.5	14.5	9.4	94	7.7	200	122	.17	112	6	--	8.2	--	14	1.5	--	--	.01	.01	1.5	.07	.03	13	2.1	2
	Nov.20, 1975	0930	.5	6.0	10.9	90	7.6	180	101	.14	0	1	16	8.2	56	16	1.6	.82	.78	.01	.01	1.6	.04	.01	13	.1	0
	Mar. 3, 1976	1000	-4.0	1.0	10.0	72	7.0	253	124	.17	34	10	21	7.9	95	20	3.7	2.3	1.4	.01	.01	3.7	.36	.04	27	.1	0
Pond AP-10	Sep.19, 1975	1140	10.0	12.0	.8	8	6.3	200	180	.24	4	9	--	1.1	--	4.1	5.9	2.4	3.5	.03	.02	5.9	4.6	4.5	42	1.9	3
	Nov.20, 1975	1000	.0	3.0	7.1	54	6.8	140	121	.16	26	14	8.4	2.2	36	5.6	4.2	2.8	1.4	.01	.01	4.2	1.2	.30	45	.7	0
	Mar. 3, 1976	1100	-4.0	.0	1.5	9	6.3	80	48	.07	130	25	6.2	.9	38	1.8	4.8	2.8	2.0	.03	.03	4.8	1.8	.62	34	.9	0

Table 4.--Chemical characteristics of bottom material from Long Meadow Lake.

	Date	Total aluminum in bottom material (ug/g)	Total arsenic in bottom material (ug/g)	Total cadmium in bottom material (ug/g)	Organic carbon in bottom material (C) (g/kg)	Total chromium in bottom material (ug/g)	Total copper in bottom material (ug/g)	Total lead in bottom material (ug/g)	Total mercury in bottom material (ug/g)	Total nitrogen in bottom material (N) (mg/kg)	Oil and grease in bottom material (mg/kg)	Total phosphorus in bottom material (mg/kg)	Total zinc in bottom material (ug/g)
Site 1	Sep.17, 1975	7500	11	2	101	27	19	80	---	11400	3000	350	98
	Dec. 2,	2700	10	2	99	5	36	30	0.0	8400	2800	170	60
Site 2	Sept.17, 1975	7300	11	2	87	52	19	80	.0	10400	3000	300	96
	Dec. 2, 1975	3100	11	2	84	4	56	60	.0	8500	2600	92	62
Site 3	Sep.17, 1975	8500	12	2	86	82	18	40	.0	9910	3000	290	86
	Dec. 2 1975	4400	13	4	80	5	55	130	.0	8400	2400	100	90
Site 4	Sep.17, 1975	8100	10	2	76	14	19	30	.0	8560	3000	350	83
	Dec. 2, 1975	3600	11	2	97	3	46	60	.0	10000	2400	92	60
Site 5	Sep.17, 1975	9600	10	2	77	9	19	40	.0	8880	3000	240	90
	Dec. 2, 1975	3200	12	2	100	4	48	70	.0	10800	2100	110	68

Table 5.--Chemical characteristics of bottom material from Black Dog Creek.

Date	Total aluminum in bottom material (ug/g)	Total arsenic in bottom material (ug/g)	Total cadmium in bottom material (ug/g)	Organic carbon in bottom material (C) (g/kg)	Total chromium in bottom material (ug/g)	Total copper in bottom material (ug/g)	Total lead in bottom material (ug/g)	Total mercury in bottom material (ug/g)	Total nitrogen in bottom material (N) (mg/kg)	Oil and grease in bottom material (mg/kg)	Total phosphorus in bottom material (mg/kg)	Total zinc in bottom material (ug/g)
Nov.24, 1975	1800	5	2	20	25	5	10	0.0	900	2900	390	145

Table 6.--Chemical characteristics of bottom material from Ponds AP-9 and AP-10.

	Date	Total aluminum in bottom material (ug/g)	Total arsenic in bottom material (ug/g)	Total cadmium in bottom material (ug/g)	Organic carbon in bottom material (C) (g/kg)	Total chromium in bottom material (ug/g)	Total copper in bottom material (ug/g)	Total lead in bottom material (ug/g)	Total mercury in bottom material (ug/g)	Total nitrogen in bottom material (N) (mg/kg)	Oil and grease in bottom material (mg/kg)	Total phosphorus in bottom material (mg/kg)	Total zinc in bottom material (ug/g)
Pond AP-9	Nov. 20, 1975	4900	8	1	40	13	17	20	0.0	4500	2.0	88	39
Pond AP-10	Nov. 20, 1975	5800	8	1	76	20	17	20	.0	9000	3.0	140	42

Table 7.--Biological analyses for Long Meadow Lake.

Site Name Long Meadow Site 1

Date September 17, 1975

PHYTOPLANKTON ANALYSIS

Total Count: 2100 cells/ml

Organism Name	Group	Percent of Total
Anacystis incerta	blue-green algae	41
Navicula	diatoms	19
Fragilaria	diatoms	12
Nitzschia	diatoms	12
Crytomonas	flagellates	6
Melosira	diatoms	3
Cocconeis	diatoms	3
Gomphonema	diatoms	3
Cyclotella	diatoms	1
Synedra	diatoms	1

BACTERIA ANALYSIS

Fecal coliform * colonies/100 ml

Fecal Streptococci * colonies/100 ml

* Samples not collected

Table 7.-- Biological analyses for Long Meadow Lake.--Continued

Site Name Long Meadow Site 1

Date December 2, 1975

PHYTOPLANKTON ANALYSIS

Total Count: 2400 cells/ml

Organism Name	Group	Percent of Total
Chlamydomonas	green algae	47
Trachelomonas	flagellates	17
Cryptomonas	flagellates	17
Euglena	flagellates	10
Cyclotella	diatoms	3
Nitzschia	diatoms	3
Mallomonas	yellow-brown algae	3

BACTERIA ANALYSIS

Fecal coliform	4	colonies/100 ml
Fecal Streptococci	42	colonies/100 ml

Table 7.--Biological analyses for Long Meadow Lake.--Continued

Site Name Long Meadow Site 1

Date March 10, 1976

PHYTOPLANKTON ANALYSIS

Total Count: 3400 cells/ml

Organism Name	Group	Percent of Total
Oscillatoria	blue-green algae	78
Anacystis	blue-green algae	8
Gymnodinium	dino-flagellates	8
Chlamydomonas	green algae	3
Ankistrodesmus	green algae	1
Gomphonema	diatoms	1
Euglena	flagellates	1

BACTERIA ANALYSIS

Fecal coliform	27	colonies/100 ml
Fecal Streptococci	16	colonies/100 ml

Table 7.--Biological analyses for Long Meadow Lake.--Continued

Site Name Long Meadow Site 1

Date April 14, 1976

PHYTOPLANKTON ANALYSIS

Total Count: 20,000 cells/ml

Organism Name	Group	Percent of Total
Ankistrodesmus	green algae	26
Chrysococcus	Yellow-brown algae	26
Nitzschia	diatoms	12
Scenedesmus	green algae	11
Anacystis	blue-green algae	9
Cryptomonas	flagellates	7
Cyclotella	diatoms	3
Selenastrum	green algae	2
Tetraedron	green algae	1
Epithemia	diatoms	1
Synedra	diatoms	1

BACTERIA ANALYSIS

Fecal coliform	50	colonies/100 ml
Fecal Streptococci	15	colonies/100 ml

Table 7.--Biological analyses for Long Meadow Lake.--Continued

Site Name Long Meadow Site 2

Date September 17, 1975

PHYTOPLANKTON ANALYSIS

Total Count: 5100 cells/ml

Organism Name	Group	Percent of Total
Nitzschia	diatoms	28
Fragilaria	diatoms	13
Navicula	diatoms	13
Cocconeis	diatoms	10
Melosira	diatoms	8
Cryptomonas	flagellates	6
Scenedesmus	green algae	5
Cyclotella	diatoms	5
Gomphonema	diatoms	4
Amphora	diatoms	3
Hannaea	diatoms	3
Euglena	flagellates	3
Phacus	flagellates	3

BACTERIA ANALYSIS

Fecal coliform * colonies/100 ml

Fecal Streptococci * colonies/100 ml

* Samples not collected

Table 7.--Biological analyses for Long Meadow Lake.--Continued

Site Name Long Meadow Site 2

Date December 2, 1975

PHYTOPLANKTON ANALYSIS

Total Count: 1900 cells/ml

Organism Name	Group	Percent of Total
Cryptomonas	flagellates	44
Navicula	diatoms	17
Chlamydomonas	green algae	17
Euglena	flagellates	11
Trachelomonas	flagellates	6
Glenodinium	dino-flagellates	6

BACTERIA ANALYSIS

Fecal coliform	42	colonies/100 ml
Fecal Streptococci	77	colonies/100 ml

Table 7.--Biological analyses for Long Meadow Lake.--Continued

Site Name Long Meadow Site 2

Date March 10, 1976

PHYTOPLANKTON ANALYSIS

Total Count: 240,000 cells/ml

Organism Name	Group	Percent of Total
Nitzschia	diatoms	48
Fragilaria	diatoms	19
Synedra	diatoms	17
Achnanthes	diatoms	6
Navicula	diatoms	3
Gomphonema	diatoms	2
Anacystis	blue-green algae	2
Chlamydomonas	green algae	1
Cocconeis	diatoms	1
Amphora	diatoms	1
Cymbella	diatoms	1
Anomoeneis	diatoms	1
Phacus	flagellates	1

BACTERIA ANALYSIS

Fecal coliform	4(B)	colonies/100 ml
Fecal Streptococci	2(B)	colonies/100 ml

(B) Non-ideal colony count

Table 7.--Biological analyses for Long Meadow Lake.--Continued

Site Name Long Meadow Site 2

Date April 14, 1976

PHYTOPLANKTON ANALYSIS

Total Count: 16,000 cells/ml

Organism Name	Group	Percent of Total
Navicula	diatoms	25
Scenedesmus	green algae	17
Nitzschia	diatoms	12
Ankistrodesmus	green algae	8
Cyclotella	diatoms	8
Melosira	diatoms	8
Synedra	diatoms	8
Gomphoneam	diatoms	4
Selenastrum	green algae	4
Schroederia	green algae	2
Caloneis	diatoms	2

BACTERIA ANALYSIS

Fecal coliform	120	colonies/100 ml
Fecal Streptococci	30	colonies/100 ml

Table 7.--Bilogical analyses for Long Meadow Lake.--Continued

Site Name Long Meadow Site 3

Date September 17, 1975

PHYTOPLANKTON ANALYSIS

Total Count: 2000 cells/ml

Organism Name	Group	Percent of Total
Anabaena	blue-green algae	83
Cocconeis	diatoms	3
Navicula	diatoms	3
Nitzschia	diatoms	3
Cyclotella	diatoms	2
Synedra	diatoms	2
Gomphonema	diatoms	2
Phacus	flagellates	2

BACTERIA ANALYSIS

Fecal coliform * colonies/100 ml

Fecal Streptococci * colonies/100 ml

* Samples not collected

Table 7.--Biological analyses for Long Meadow Lake.--Continued

Site Name Long Meadow Site 3

Date December 2, 1975

PHYTOPLANKTON ANALYSIS

Total Count: 1300 cells/ml

Organism Name	Group	Percent of Total
Crucigenia	green algae	17
Scenedesmus	green algae	17
Nitzschia	diatoms	17
Trachelomonas	flagellates	15
Euglena	flagellates	9
Glenodinium	dino-flagellates	7
Chlamydomonas	green algae	4
Navicula	diatoms	4
Cyclotella	diatoms	2
Pinnularia	diatoms	2
Cymatopleura	diatoms	2
Cryptomonas	flagellates	2

BACTERIA ANALYSIS

Fecal coliform	2(B)	colonies/100 ml
Fecal Streptococci	6(B)	colonies/100 ml

(B) Non-ideal colony count

Table 7.--Bilogical analyses for Long Meadow Lake.--Continued

Site Name Long Meadow Site 3

Date March 10, 1976

PHYTOPLANKTON ANALYSIS

Total Count: 16,000 cells/ml

Organism Name	Group	Percent of Total
Oscillatoria	blue-green algae	36
Nitzschia	diatoms	23
Dictyosphaerium	green algae	18
Navicula	diatoms	7
Cyclotella	diatoms	5
Gymnodinium	dino-flagellates	5
Chlamydomonas	green algae	2
Ankistrodesmus	green algae	1
Caloneis	diatoms	1
Pinnularia	diatoms	1
Cymatopleura	diatoms	1
Surirella	diatoms	1

BACTERIA ANALYSIS

Fecal coliform	< 1	colonies/100 ml
Fecal Streptococci	10(B)	colonies/100 ml

(B) Non-ideal colony count

Table 7.--Biological analyses for Long Meadow Lake.--Continued

Site Name Long Meadow Site 4

Date September 17, 1975

PHYTOPLANKTON ANALYSIS

Total Count: 3200 cells/ml

Organism Name	Group	Percent of Total
Anabaena	blue-green algae	79
Nitzschia	diatoms	8
Cryptomonas	flagellates	5
Navicula	diatoms	4
Cocconeis	diatoms	2
Cyclotella	diatoms	1
Gomphonema	diatoms	1

BACTERIA ANALYSIS

Fecal coliform	*	colonies/100 ml
Fecal Streptococci	*	colonies/100 ml

* Samples not collected

Table 7.--Bilogical analyses for Long Meadow Lake.--Continued

Site Name Long Meadow Site 4

Date December 2, 1975

PHYTOPLANKTON ANALYSIS

Total Count: 1000 **cells/ml**

Organism Name	Group	Percent of Total
Euglena	flagellates	24
Cyclotella	diatoms	18
Oocystis	green algae	12
Nitzschia	diatoms	12
Trachelomonas	flagellates	12
Chlamydomonas	green algae	6
Glenodinium	dino-flagellates	6
Ankistrodesmus	green algae	3
Mallomonas	yellow-brown algae	3
Cryptomonas	flagellates	3

BACTERIA ANALYSIS

Fecal coliform	4(B) colonies/100 ml
Fecal Streptococci	36(B) colonies/100 ml

(B) Non-ideal colony count

Table 7.--Biological analyses for Long Meadow Lake.--Continued

Site Name Long Meadow Site 4

Date March 10, 1976

PHYTOPLANKTON ANALYSIS

Total Count: 16,000 cells/ml

Organism Name	Group	Percent of Total
Oscillatoria	blue-green algae	51
Nitzschia	diatoms	27
Anacystis	blue-green algae	7
Cyclotella	diatoms	4
Melosira	diatoms	4
Navicula	diatoms	4
Chlamydomonas	green algae	2
Stauroneis	diatoms	2

BACTERIA ANALYSIS

Fecal coliform	12(B) colonies/100 ml
Fecal Streptococci	10(B) colonies/100 ml

(B) Non-ideal colony count

Table 7.--Biological analyses for Long Meadow Lake.--Continued

Site Name Long Meadow Site 5

Date September 17, 1975

PHYTOPLANKTON ANALYSIS

Total Count: 8300 cells/ml

Organism Name	Group	Percent of Total
Phacus	flagellates	24
Fragilaria	diatoms	11
Scenedesmus	green algae	8
Cyclotella	diatoms	8
Navicula	diatoms	8
Cryptomonas	flagellates	8
Nitzschia	diatoms	7
Melosira	diatoms	6
Cocconeis	diatoms	5
Cymbella	diatoms	3
Gomphonema	diatoms	3
Anacystis	blue-green algae	3
Amphora	diatoms	2
Chlamydomonas	green algae	1
Eunotia	diatoms	1
Synedra	diatoms	1
Caloneis	diatoms	1
Tabellaria	diatoms	1
Trachelomonas	flagellates	1

BACTERIA ANALYSIS

Fecal coliform * colonies/100 ml

Fecal Streptococci * colonies/100 ml

* Samples not collected

Table 7.--Biological analyses for Long Meadow Lake.--Continued

Site Name Long Meadow Site 5

Date December 2, 1975

PHYTOPLANKTON ANALYSIS

Total Count: 4400 cells/ml

Organism Name	Group	Percent of Total
Cyclotella	diatoms	19
Nitzschia	diatoms	14
Euglena	flagellates	14
Cryptomonas	flagellates	11
Trachelomonas	flagellates	11
Oscillatoria	blue-green algae	8
Scenedesmus	green algae	6
Ankistrodesmus	green algae	3
Cocconeis	diatoms	3
Navicula	diatoms	3
Surirella	diatoms	3
Raphidiopsis	blue-green algae	3
Glenodinium	dino-flagellates	3

BACTERIA ANALYSIS

Fecal coliform	8(B) colonies/100 ml
Fecal Streptococci	24(B) colonies/100 ml

(B) Non-ideal colony count

Table 7.--Biological analyses for Long Meadow Lake.--Continued

Site Name Long Meadow Site 5

Date March 10, 1976

PHYTOPLANKTON ANALYSIS

Total Count: 41,000 cells/ml

Organism Name	Group	Percent of Total
Oscillatoria	blue-green algae	98
Navicula	diatoms	1

BACTERIA ANALYSIS

Fecal coliform	12(B) colonies/100 ml
Fecal Streptococci	10(B) colonies/100 ml

(B) Non-ideal colony count

Table 8.--Biological analyses for Black Dog Creek.

Site Name Black Dog Creek

Date August 27, 1975

PHYTOPLANKTON ANALYSIS

Total Count: 49,000 cells/ml

Organism Name	Group	Percent of Total
Anacystis incerta	blue-green algae	46
Oscillatoria	blue-green algae	29
Anabaena	blue-green algae	7
Anacystis	blue-green algae	6
Euglena	flagellates	4
Melosira	diatoms	2
Navicula	diatoms	2
Nitzschia	diatoms	2
Tetrastrum	green algae	1
Cyclotella	green algae	1

BACTERIA ANALYSIS

Fecal coliform	470	colonies/100 ml
Fecal Streptococci	1600	colonies/100 ml

Table 8.--Biological analyses for Black Dog Creek.--Continued

Site Name Black Dog Creek

Date September 18, 1975

PHYTOPLANKTON ANALYSIS

Total Count: 850 cells/ml

Organism Name	Group	Percent of Total
Nitzschia	diatoms	40
Navicula	diatoms	30
Oscillatoria	blue-green algae	27
Achnanthes	diatoms	3

BACTERIA ANALYSIS

Fecal coliform	1300(B) colonies/100 ml
Fecal Streptococci	4200 colonies/100 ml

(B) Non-ideal colony count

Table 8.--Biological analyses for Black Dog Creek.--Continued

Site Name Black Dog Creek

Date October 22, 1975

PHYTOPLANKTON ANALYSIS

Total Count: 52,000 cells/ml

Organism Name	Group	Percent of Total
Actinastrum	green algae	26
Anacystis	blue-green algae	26
Nitzschia	diatoms	11
Ankistrodesmus	green algae	8
Schenedesmus	Green algae	8
Cyclotella	diatoms	5
Melosira	diatoms	4
Gleoactinium	green algae	3
Radiococcus	green algae	3
Dictyosphaerium	green algae	1
Kirchneriella	green algae	1
Chlamydomonas	green algae	1
Navicula	diatoms	1

BACTERIA ANALYSIS

Fecal coliform	40	colonies/100 ml
Fecal Streptococci	180	colonies/100 ml

Table 8.--Biological analyses for Black Dog Creek.--Continued

Site Name Black Dog Creek

Date November 24, 1975

PHYTOPLANKTON ANALYSIS

Total Count: 990 cells/ml

Organism Name	Group	Percent of Total
Navicula	diatoms	39
Nitzschia	diatoms	27
Cyclotella	diatoms	18
Scenedesmus	green algae	12
Achnanthes	diatoms	3

BACTERIA ANALYSIS

Fecal coliform 4(B) colonies/100 ml

Fecal Streptococci 40(B) colonies/100 ml

(B) Non-ideal colony count

Table 8.--Biological analyses for Black Dog Creek.--Continued

Site Name Black Dog Creek

Date December 23, 1975

PHYTOPLANKTON ANALYSIS

Total Count: 200 cells/ml

Organism Name	Group	Percent of Total
Navicula	diatoms	33
Nitzschia	diatoms	33
Achnanthes	diatoms	11
Gomphonema	diatoms	11
Surirella	diatoms	11

BACTERIA ANALYSIS

Fecal coliform	4	colonies/100 ml
Fecal Streptococci	21	colonies/100 ml

Table 8.--Biological analyses for Black Dog Creek.--Continued

Site Name Black Dog Creek

Date January 20, 1976

PHYTOPLANKTON ANALYSIS

Total Count: 450 cells/ml

Organism Name	Group	Percent of Total
Navicula	diatoms	55
Synedra	diatoms	15
Nitzschia	diatoms	15
Achnanthes	diatoms	5
Meridion	diatoms	5
Stauroneis	diatoms	5

BACTERIA ANALYSIS

Fecal coliform	9	colonies/100 ml
Fecal Streptococci	10	colonies/100 ml

Table 8.--Biological analyses for Black Dog Creek.--Continued

Site Name Black Dog Creek

Date February 17, 1976

PHYTOPLANKTON ANALYSIS

Total Count: 300 cells/ml

Organism Name	Group	Percent of Total
Navicula	diatoms	32
Oscillatoria	blue-green algae	27
Nitzschia	diatoms	20
Gomphonema	diatoms	7
Achnanthes	diatoms	5
Gyrosigma	diatoms	5
Phormidium	blue-green algae	2
Cryptomonas	flagellates	2

BACTERIA ANALYSIS

Fecal coliform	25	colonies/100 ml
Fecal Streptococci	660	colonies/100 ml

Table 8.--Biological analyses for Black Dog Creek.--Continued

Site Name Black Dog Creek

Date March 24, 1976

PHYTOPLANKTON ANALYSIS

Total Count: 4300 cells/ml

Organism Name	Group	Percent of Total
Cyclotella	diatoms	40
Navicula	diatoms	27
Anacystis	blue-green algae	11
Pediastrum	green algae	4
Ankistrodesmus	green algae	4
Synedra	diatoms	3
Nitzschia	diatoms	3
Euglena	flagellates	2
Trachelomonas	flagellates	2
Melosira	diatoms	1

BACTERIA ANALYSIS

Fecal coliform 4 colonies/100 ml

Fecal Streptococci 27 colonies/100 ml

Table 8.--Biological analyses for Black Dog Creek.--Continued

Site Name Black Dog Creek

Date April 27, 1976

PHYTOPLANKTON ANALYSIS

Total Count: 15,000 cells/ml

Organism Name	Group	Percent of Total
Scenedesmus	green algae	13
Anacystis	blue-green algae	10
Ankistrodesmus	green algae	9
Chlamydomonas	green algae	9
Kirchneriella	green algae	9
Oscillatoria	blue-green algae	8
Crucigenia	green algae	6
Nitzschia	diatoms	6
Actinastrum	green algae	5
Cyclotella	diatoms	5
Selenastrum	green algae	4
Melosira	diatoms	3
Fragilaria	diatoms	2
Navicula	diatoms	2
Euglena	flagellates	2
Cryptomonas	flagellates	1
Chodatella	green algae	1
Gomphonema	diatoms	1
Chrysococcus	yellow-brown algae	1

BACTERIA ANALYSIS

Fecal coliform	10	colonies/100 ml
Fecal Streptococci	32	colonies/100 ml

Table 8.--Biological Analyses for Black Dog Creek.--Continued

Site Name Black Dog Creek

Date May 12, 1976

PHYTOPLANKTON ANALYSIS

Total Count: 46,000 cells/ml

Organism Name	Group	Percent of Total
Cylindrocapsa	green algae	52
Actinastrum	green algae	9
Oscillatoria	blue-green algae	9
Nitzschia	diatoms	8
Scenedesmus	green algae	5
Pediastrum	green algae	4
Micractinium	green algae	3
Euglena	flagellates	2
Trachelomonas	flagellates	1
Chodatella	green algae	1
Chlamydomonas	green algae	1
Closterium	green algae	1
Cyclotella	diatoms	1
Melosira	diatoms	1
Navicula	diatoms	1
Trachelomonas	flagellates	1

BACTERIA ANALYSIS

Fecal coliform 120 colonies/100 ml

Fecal Streptococci 210 colonies/100 ml

Table 8.--Biological analyses for Black Dog Creek.--Continued

Site Name Black Dog Creek

Date June 16, 1976

PHYTOPLANKTON ANALYSIS

Total Count: 21,000 cells/ml

Organism Name	Group	Percent of Total
Agmenellum	blue-green algae	39
Cyclotella	diatoms	16
Gloeoactinium	green algae	12
Melosira	diatoms	6
Navicula	diatoms	6
Nitzschia	diatoms	6
Ochromonas	yellow-brown algae	4
Euglena	flagellates	4
Scenedesmus	green algae	4
Kirchneriella	green algae	2
Ankistrodesmus	green algae	1
Pinnularia	diatoms	1

BACTERIA ANALYSIS

Fecal coliform	330 colonies/100 ml
Fecal Streptococci	880(B) colonies/100 ml

(B) Non-ideal colony count

Table 9.--Biological analyses for Pond AP-9.

Site Name Pond AP-9

Date September 19, 1975

PHYTOPLANKTON ANALYSIS

Total Count: 3800 cells/ml

Organism Name	Group	Percent of Total
Scenedesmus	green algae	29
Ceratium	dino-flagellates	18
Kirchneriella	green algae	15
Nitzschia	diatoms	13
Synedra	diatoms	5
Gomphonema	diatoms	4
Dinobryon	yellow-brown algae	4
Trachelomonas	flagellates	4
Fragilaria	diatoms	2
Hannaea	diatoms	2
Navicula	diatoms	2
Pinnularia	diatoms	2
Euglena	flagellates	2

BACTERIA ANALYSIS

Fecal coliform 18 colonies/100 ml

Fecal Streptococci 130 colonies/100 ml

Table 9.--Biological analyses for Pond AP-9.--Continued

Site Name Pond AP-9

Date November 20, 1975

PHYTOPLANKTON ANALYSIS

Total Count: 32,000 cells/ml

Organism Name	Group	Percent of Total
Anacystis	blue-green algae	99

BACTERIA ANALYSIS

Fecal coliform	4	colonies/100 ml
Fecal Streptococci	16	colonies/100 ml

Table 9.--Biological analyses for Pond AP-9.--Continued

Site Name Pond AP-9

Date March 3, 1976

PHYTOPLANKTON ANALYSIS

Total Count: 30,000 cells/ml

Organism Name	Group	Percent of Total
Chroomonas	flagellates	64
Trachelomonas	flagellates	6
Dinobryon	yellow-brown algae	6
Gonium	green algae	6
Chlamydomonas	green algae	4
Gymnodinium	dino-flagellates	4
Scenedesmus	green algae	3
Euglena	flagellates	1
Nitzschia	diatoms	1
Cryptomonas	flagellates	1
Gomphonema	diatoms	1
Eunotia	diatoms	1
Staurastrum	green algae	1

BACTERIA ANALYSIS

Fecal coliform <1 colonies/100 ml

Fecal Streptococci <1 colonies/100 ml

Table 10.--Biological analyses for Pond AP-10.

Site Name Pond AP-10

Date September 19, 1975

PHYTOPLANKTON ANALYSIS

Total Count: 100,000 **cells/ml**

Organism Name	Group	Percent of Total
Anacystis	blue-green algae	63
Anacystis incerta	blue-green algae	28
Nitzschia	diatoms	6
Synedra	diatoms	1
Tribonema	yellow-green algae	1
Trachelomonas	flagellates	1

BACTERIA ANALYSIS

Fecal coliform	240	colonies/100 ml
Fecal Streptococci	930	colonies/100 ml

Table 10.--Biological analyses for Pond AP-10.--Continued

Site Name Pond AP-10

Date November 20, 1975

PHYTOPLANKTON ANALYSIS

Total Count: 33,000 cells/ml

Organism Name	Group	Percent of Total
Trachelomonas	flagellates	58
Nitzschia	diatoms	16
Mougeotia	green algae	11
Chlamydomonas	green algae	3
Closterium	green algae	3
Navicula	diatoms	3
Cryptomonas	flagellates	3
Glenodinium	flagellates	3
Peridinium	flagellates	3

BACTERIA ANALYSIS

Fecal coliform	92	colonies/100 ml
Fecal Streptococci	12	colonies/100 ml

Table 10.--Biological analyses for Pond AP-10.--Continued

Site Name Pond AP-10

Date March 3, 1976

PHYTOPLANKTON ANALYSIS

Total Count: 18,000 cells/ml

Organism Name	Group	Percent of Total
Chlamydomonas	green algae	49
Oscillatoria	blue-green algae	17
Trachelomonas	flagellates	12
Chlorogonium	green algae	7
Cryptomonas	flagellates	5
Synedra	diatoms	5
Pinnularia	diatoms	2

BACTERIA ANALYSIS

Fecal coliform	<1	colonies/100 ml
Fecal Streptococci	1	colonies/100 ml