

Ames

Lake Overview

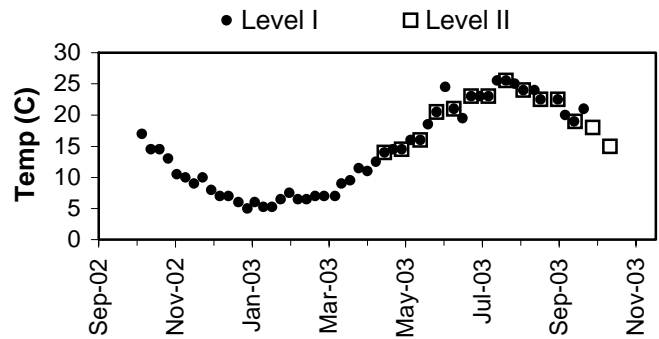
Volunteer monitoring began at Ames Lake in 2000 and continued through 2003. The four years of data collected indicate the lake is low to moderate in primary productivity (oligotrophic to mesotrophic) with very good water quality. The lake surface makes up about 7% of the drainage area, indicating that surface runoff and groundwater likely constitute the majority of water inputs. Land use analysis of 2002 aerial photographs showed 55% of the surrounding watershed has been developed for uses other than agriculture or forestry. The King County Wetland Inventory listed two Class 1 wetlands that drain to the lake (King County, 1990).

Ames Lake does not have a public access boat ramp. However, residents should monitor aquatic plants growing nearshore to catch early infestations of Eurasian milfoil, Brazilian elodea or other noxious aquatic weeds.

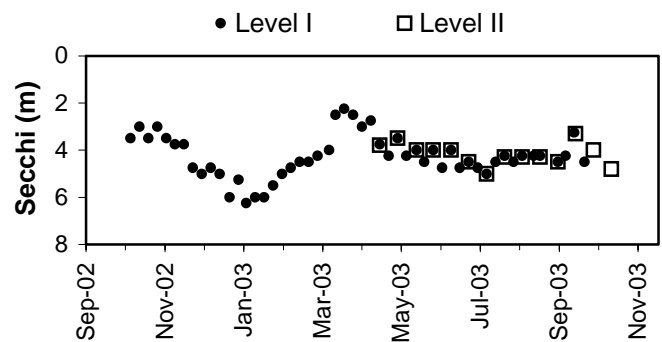
Physical Parameters

Secchi transparency ranged from 2.3 to 6.3m through the year, with the clearest period in mid-winter. Surface water temperatures ranged from 5.0 to 25.5 degrees Celsius. Lake level rose sharply in fall, was relatively stable through the winter and declined slowly in summer to the low stand at the end of the water year.

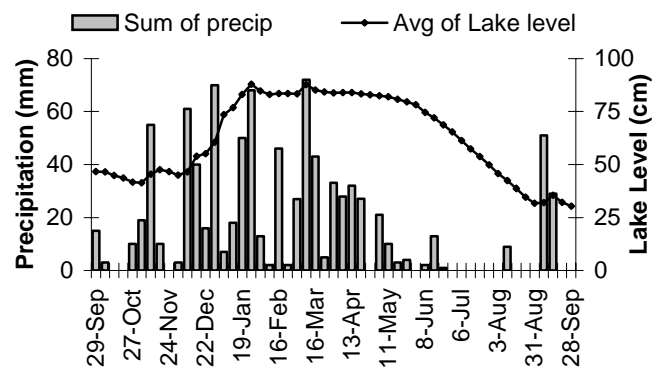
Lake Temperature



Secchi Depth

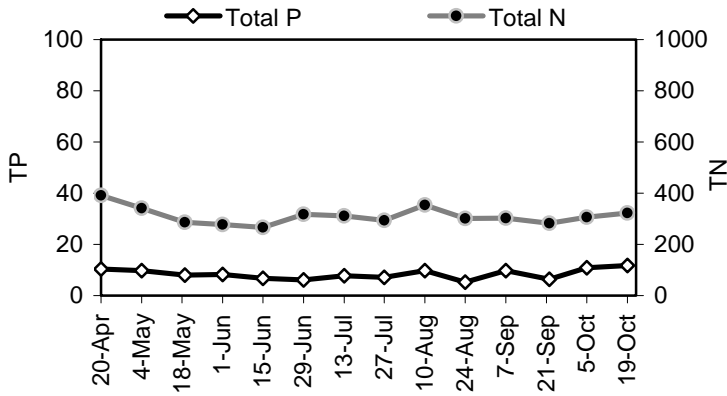


Lake Level and Precipitation

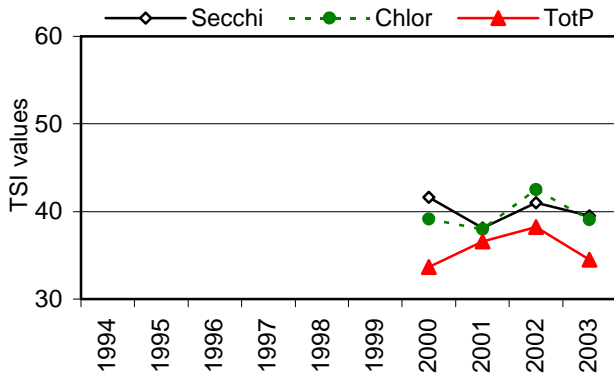


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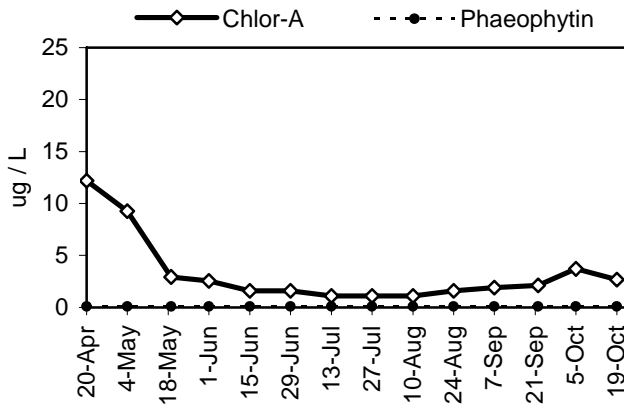
Nutrient Analysis



TSI Ratings



Chlorophyll a Concentrations (ug/L)



Nutrient Analysis and TSI Ratings

Total phosphorus and total nitrogen remained stable and in fairly constant proportion to each other over the season. The N:P ratio ranged from 27 to 58, indicating inhospitable conditions for bluegreens. The TSI values for Secchi and chlorophyll were in good agreement with each other, close to the threshold of mesotrophic productivity, while TSI-TotP was lower.

Chlorophyll and Algae

Chlorophyll concentrations were highest in spring and dropped to low levels through the rest of the sampling season. Algae populations in the lake also reached their maximum in spring, dominated by the diatom *Cyclotella bodanica*, similar to the two previous years. Other dominant algae included an unidentified chrysophyte species and the dinoflagellate *Trachelomonas*. Bluegreens were occasionally present, but uncommon.

Common algae	Group
unidentified species	chrysophyte
<i>Cyclotella</i> sp.	chrysophyte diatom
<i>Trachelomonas</i> sp.	euglenophyte

Ames

2003 Level I Data

Daily Data Summary

Week of	Sum of precip. (mm)	# of days	Avg of lake level (cm)	# of days
29-Sep-02	15.0	5	46.6	5
6-Oct-02	3.0	7	46.4	7
13-Oct-02	0.1	7	44.7	7
20-Oct-02	0.0	7	43.6	7
27-Oct-02	10.0	7	41.6	7
3-Nov-02	19.0	7	41.3	7
10-Nov-02	55.0	7	45.4	7
17-Nov-02	10.0	7	47.6	7
24-Nov-02	0.0	7	46.6	7
1-Dec-02	3.1	7	44.9	7
8-Dec-02	61.0	7	46.4	7
15-Dec-02	40.0	7	53.9	7
22-Dec-02	16.0	7	55.1	7
29-Dec-02	70.0	7	60.6	7
5-Jan-03	7.0	7	73.6	7
12-Jan-03	18.0	7	76.9	7
19-Jan-03	50.0	7	83.0	7
26-Jan-03	68.0	7	87.9	7
2-Feb-03	13.0	7	84.7	7
9-Feb-03	2.0	7	83.0	7
16-Feb-03	46.0	7	83.6	7
23-Feb-03	2.0	7	83.6	7
2-Mar-03	27.0	7	83.3	7
9-Mar-03	72.0	7	87.7	7
16-Mar-03	43.0	7	85.1	7
23-Mar-03	5.0	7	84.3	7
30-Mar-03	33.0	7	83.9	7
6-Apr-03	28.0	7	84.0	7
13-Apr-03	32.0	2	84.0	2
20-Apr-03	27.1	7	83.4	7
27-Apr-03	0.1	7	82.9	7
4-May-03	21.0	7	82.4	7
11-May-03	10.0	7	82.0	7
18-May-03	3.1	7	80.9	7
25-May-03	4.0	7	79.6	7
1-Jun-03	0.0	7	78.3	7
8-Jun-03	2.0	7	74.6	7
15-Jun-03	13.0	7	72.0	7
22-Jun-03	1.0	7	68.7	7
29-Jun-03	0.0	7	65.3	7
6-Jul-03	0.1	7	61.3	7
13-Jul-03	0.1	7	57.3	7
20-Jul-03	0.0	7	53.7	7
27-Jul-03	0.0	7	49.7	7
3-Aug-03	0.1	7	45.7	7
10-Aug-03	9.0	7	42.4	7
17-Aug-03	0.0	7	38.7	7
24-Aug-03	0.0	7	34.7	7
31-Aug-03	0.0	7	31.7	7
7-Sep-03	51.0	7	32.0	7
14-Sep-03	29.0	7	35.6	7
21-Sep-03	0.0	7	32.3	7
28-Sep-03	0.0	3	30.3	3
Min	0.0		30.3	
Max	72.0		87.9	
Total	918.4			

Weekly Data Summary

Sample date	Sample time	Secchi (m)	Temp (°C)	Algae* (Shore)	Algae* (at site)	Goose Count*
6-Oct-02	13:35	3.5	17.0	P2	C1	0
13-Oct-02	10:40	3.0	14.5	NA	C2	0
20-Oct-02	11:40	3.5	14.5	P1	C2/P2	0
27-Oct-02	13:45	3.0	13.0	P1	C2/P2	0
3-Nov-02	13:15	3.5	10.5	P1	C1/P2	0
10-Nov-02	15:35	3.8	10.0	P1	C1/P2	0
17-Nov-02	14:00	3.8	9.0	NA	P1	0
24-Nov-02	12:30	4.8	10.0	NA	P1	0
1-Dec-02	13:15	5.0	8.0	NA	P1	0
8-Dec-02	14:20	4.8	7.0	NA	P1	0
15-Dec-02	13:55	5.0	7.0	NA	P1	0
23-Dec-02	11:00	6.0	6.0	P2	P1	0
30-Dec-02	11:30	5.3	5.0	NA	P1	0
5-Jan-03	11:45	6.3	6.0	NA	P1	0
12-Jan-03	12:35	6.0	5.3	NA	P2	0
19-Jan-03	14:10	6.0	5.3	NA	P2	0
26-Jan-03	14:20	5.5	6.5	NA	P2	0
2-Feb-03	15:00	5.0	7.5	NA	P2	0
9-Feb-03	11:30	4.8	6.5	NA	P2	0
16-Feb-03	16:00	4.5	6.5	NA	P2	0
23-Feb-03	15:20	4.5	7.0	NA	P2	0
2-Mar-03	15:15	4.3	7.0	NA	P2	0
11-Mar-03	16:30	4.0	7.0	NA	P2	0
16-Mar-03	16:00	2.5	9.0	NA	C3/P3	0
23-Mar-03	13:15	2.3	9.5	NA	C3/P3	0
30-Mar-03	16:30	2.5	11.5	C1	C3/P3	0
6-Apr-03	15:40	3.0	11.0	P3	P3	2
13-Apr-03	16:00	2.8	12.5	P3	P3	0
20-Apr-03	11:50	3.8	14.0	P3	P3	2
27-Apr-03	16:30	4.3	14.5	P3	P3	0
4-May-03	14:00	3.5	14.5	P3	P3	0
11-May-03	19:30	4.3	16.0	P2	P2	0
18-May-03	17:30	4.0	16.0	P1	P1	0
25-May-03	18:00	4.5	18.5	P1	P1	0
1-Jun-03	15:00	4.0	20.5	NA	NA	3
8-Jun-03	16:45	4.8	24.5	P1	P1	12
15-Jun-03	12:25	4.0	21.0	P1	P1	0
22-Jun-03	16:20	4.8	19.5	P1	P1	0
29-Jun-03	18:20	4.5	23.0	P1	P1	29
6-Jul-03	17:20	4.8	23.0	P1	P1	15
13-Jul-03	19:20	5.0	23.0	P1	P1	0
20-Jul-03	19:40	4.5	25.5	P1	P1	12
27-Jul-03	18:00	4.3	25.5	P1	P1	0
3-Aug-03	17:45	4.5	25.0	P2	P2	0
10-Aug-03	19:30	4.3	24.0	P2	P2	0
17-Aug-03	17:00	4.3	24.0	P2	P2	1
24-Aug-03	12:45	4.3	22.5	P2	P2	0
7-Sep-03	14:45	4.5	22.5	P1	P1	0
13-Sep-03	10:15	4.3	20.0	P1	P1	0
20-Sep-03	17:00	3.3	19.0	P1	P1	20
28-Sep-03	15:20	4.5	21.0	P1	P1	0
Min		2.3	5.0			0
Max		6.3	25.5			29

