

## Yellow

### Lake Overview

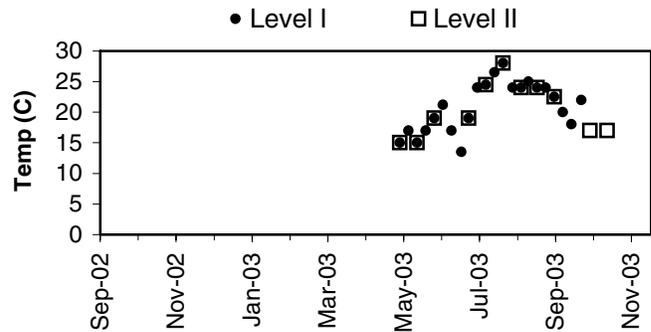
Volunteer monitoring began at Yellow Lake in 2003. The data indicate the lake is moderately high in primary productivity (mesotrophic - eutrophic) with good to fair water quality. Since the lake surface makes up only 4% of the drainage area, direct precipitation is not as important as watershed inputs. The lake is part of a large Class 1 wetland (King County, 1990). Land use analysis of 2002 aerial photographs showed 68% of the surrounding watershed has been developed for uses other than agriculture or forestry.

Yellow Lake has public access, but no boat launch. Lake users should watch for early infestations of Eurasian milfoil, Brazilian elodea and other noxious aquatic weeds.

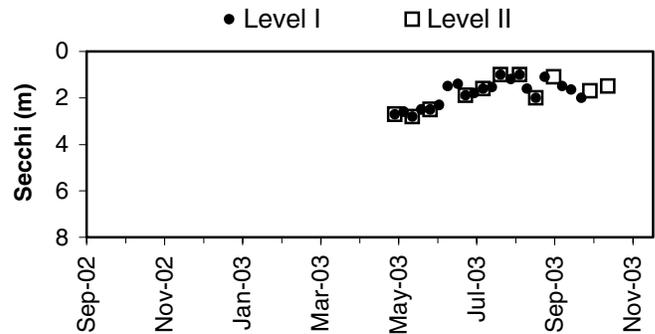
### Physical Parameters

Secchi transparency ranged from 1.0 to 2.8m from April through October. Surface water temperatures through the same period ranged from 13.5 to 28.0 degrees Celsius. There were no records of precipitation and water level over the year.

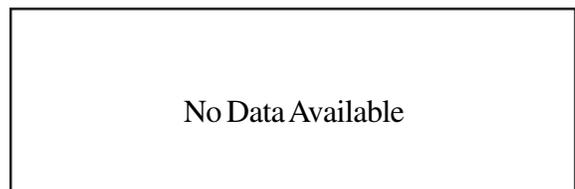
Lake Temperature



Secchi Depth

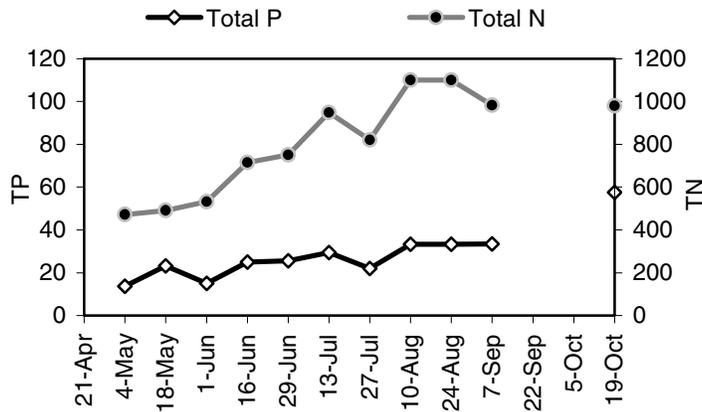


Lake Level and Precipitation

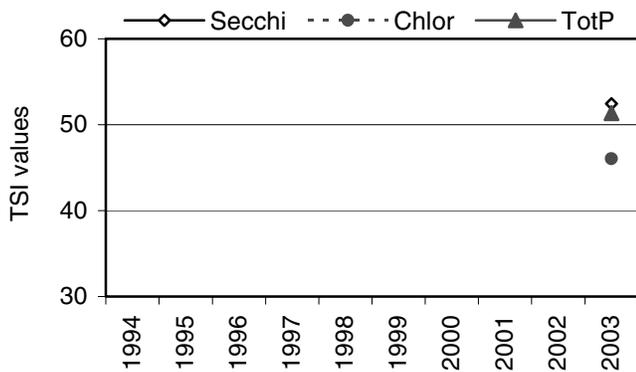


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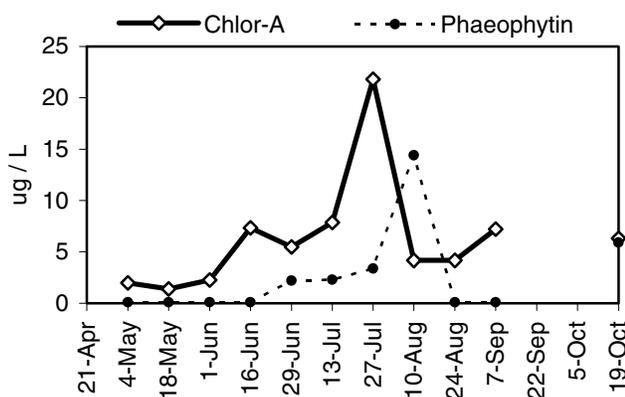
### Nutrient Analysis



### TSI Ratings



### Chlorophyll a Concentrations (ug/L)



## Nutrient Analysis and TSI Ratings

Total nitrogen increased from April through August, after which it remained in relatively stable. Total phosphorus also rose over the sample period, but at a much slower rate. The N:P ratio ranged from 17 to 37, with the lower values in the beginning of the season. In 2003, the average TSI-chlorophyll was in the mid-mesotrophic range, lower than the other two indicators which were above the threshold for eutrophy.

## Chlorophyll and Algae

Chlorophyll rose to a distinct maximum in late July. Phaeophytin was also higher in summer, suggesting that some amount of sediment containing degraded chlorophyll was included in the samples. The data gap in autumn may have missed a fall phytoplankton bloom. Dominant algae included the chlorophyte desmids *Micrasterias radiata*, which is indicative of a small water body, as well as an unidentified chrysophyte species and several species of the chrysophyte *Dinobryon*. Bluegreens were very scarce and never identified as more than a trace.

Common algae	Group
<i>Micrasterias radiata</i>	chlorophyte
unidentified species	chrysophyte
<i>Dinobryon</i> spp.	chrysophyte



Yellow

2003 Level II Data

Date (2003)	Temp (°C)	Secchi (m)	Chl-a (µg/l)	TP (µg/l)	TN (µg/l)	Algae Obsv.	N:P	Calculated TSI			Notes
								Secc	chl-a	TP	
21-Apr											No sample.
4-May	15.0	2.7	2.0	13.7	472	2	34	45.7	37.3	41.9	
18-May	15.0	2.8	1.4	23.3	491	2	21	45.1	33.9	49.6	
1-Jun	19.0	2.5	2.3	15.1	532	1	35	46.8	38.6	43.3	
16-Jun											Lots of stringy algae on marker rope. No sample.
29-Jun	19.0	1.9	7.3	25.0	715	1	29	50.7	50.1	50.6	
13-Jul	24.5	1.6	5.5	25.6	751	1	29	53.2	47.2	50.9	Slimy algae in clumps on surface.
27-Jul	28.0	1.0	7.9	29.5	949	2	32	60.0	50.8	53.0	
11-Aug	24.0	1.0	21.8	22.0	820	2	37	60.0	60.8	48.7	
24-Aug	24.0	2.0	4.2	33.4	1100	2	33	50.0	44.6	54.8	
7-Sep	22.5	1.1	7.2	33.5	983	1	29	58.6	49.9	54.8	
22-Sep											No sample.
6-Oct	17.0	1.7				2		52.3			No water sample.
20-Oct	17.0	1.5	6.3	57.4	980	2	17	54.1	48.6	62.6	The water sample was taken at surface.
	Temp (°C)	Secchi (m)	Chl-a (µg/l)	TP (µg/l)	TN (µg/l)	Algae Obsv.	N:P	Calculated TSI			
								Secc	chl-a	TP	
<b>Mean</b>	20.5	1.8	6.6	27.9	779.3	1.6	30	52.4	46.2	51.0	<b>TSI Average = 49.9</b>
<b>Median</b>	19.0	1.7	5.9	25.3	785.5	2	31	52.3	47.9	50.8	
<b>Min</b>	15.0	1.0	1.4	13.7	472.0	1	17	45.1	33.9	41.9	
<b>Max</b>	28.0	2.8	21.8	57.4	1100.0	2	37	60.0	60.8	62.6	
<b>Count</b>	11	11	10	10	10	11	10	11	10	10	