

## Jones

### Lake Overview

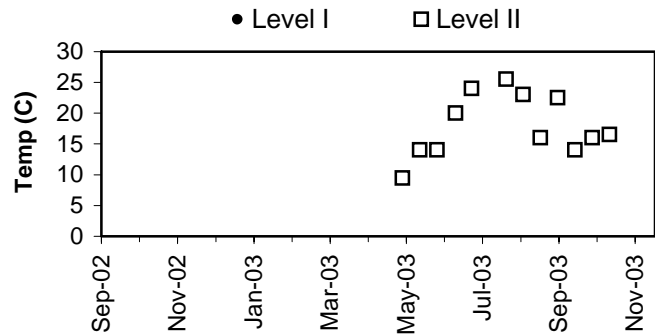
Volunteer monitoring began at Jones Lake in 2000 and continued through 2003. The data indicate that this city lake (Black Diamond) is moderate to high in primary productivity (mesotrophic - eutrophic), with good to fair water quality. Since the lake surface makes up only 3% of the drainage area, direct precipitation is less important than watershed inputs. There is one Class 2 wetland in the basin (King County, 1990). Land use analysis of 2002 aerial photographs showed less than 10% of the surrounding watershed has been developed for uses other than agriculture or forestry.

Jones Lake currently has no public access points, but users should keep an eye on aquatic plants growing nearshore to catch early infestations of Eurasian milfoil, Brazilian elodea or other noxious weeds.

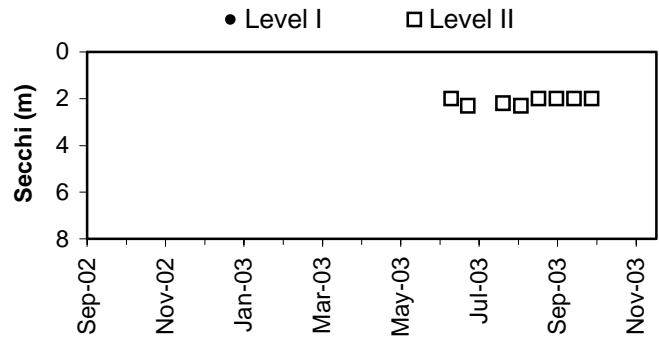
### Physical Parameters

Secchi transparency was stable, ranging between 2.0 and 2.3m through the Level II sampling season. Level II surface water temperatures reached a maximum of 25.5 degrees Celsius in late July. There were no precipitation or water levels records for the year.

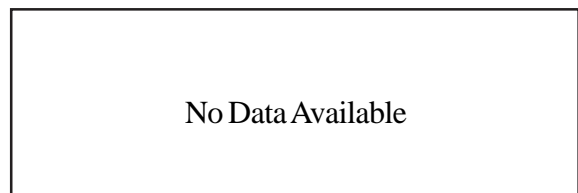
Lake Temperature



Secchi Depth

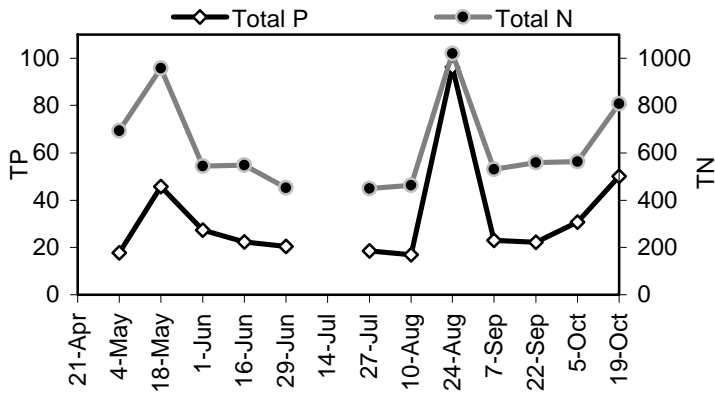


Lake Level and Precipitation

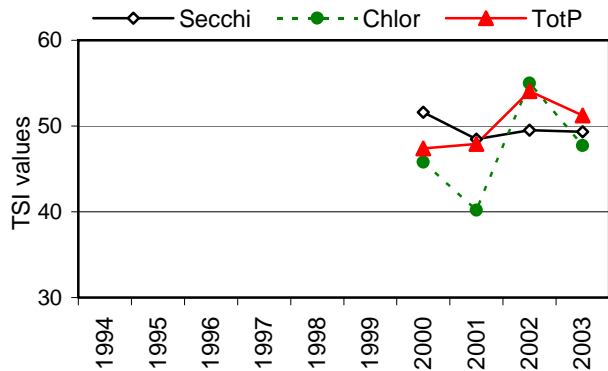


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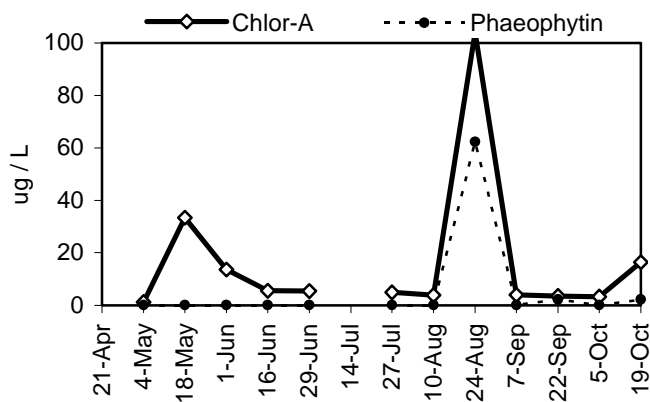
### Nutrient Analysis



### TSI Ratings



### Chlorophyll a Concentrations (ug/L)



#### Common algae

#### Group

unidentified species	chrysophyte
<i>Cryptomonas</i> spp.	cryptophyte
<i>Trachelomonas</i> sp.	euglenoid

## Nutrient Analysis and TSI Ratings

Total phosphorus and total nitrogen maintained similar proportions to each other during the sampling season, with the exception of one date in August, when the sample contained abnormally high concentrations of nutrients, suggesting it was contaminated with bottom sediments. The N:P ratio ranged from 11 to 39. The 2003 indicators were in close agreement with each other, putting the lake on the threshold between mesotrophy and eutrophy.

## Chlorophyll and Algae

Chlorophyll peaked in mid-May and was at low levels for the rest of the season, with the exception of one anomalous date, which coincided with very high nutrients and a high pheophytin (degraded chlorophyll) value, indicating that the sample was probably contaminated with bottom sediments. Commonly found algae included *Cryptomonas* species and unidentified chrysophyte algae. The August 24 sample contained many bottom-dwelling diatom species that were not present in the other samples. Bluegreen algae were very rare.

No Level I Data  
Available For This Lake

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	9.5		1.2	17.7	694	1	39		32.4	45.6	
18-May	14.0		33.4	45.8	958		21		65.0	59.3	
1-Jun	14.0		13.6	27.3	545		20		56.2	51.9	
16-Jun	20.0	2.0	5.5	22.3	548	3	25	50.0	47.3	48.9	
29-Jun	24.0	2.3	5.3	20.4	452	3	22	48.0	47.0	47.7	
14-Jul											No sample.
27-Jul	25.5	2.2	4.9	18.5	450	2	24	48.6	46.2	46.2	
10-Aug	23.0	2.3	3.7	16.9	463	2	27	48.0	43.5	44.9	
24-Aug	16.0	2.0	104.0	96.2	1020	3	11	50.0	76.1	70.0	
7-Sep	22.5	2.0	3.9	23.0	531	3	23	50.0	43.8	49.4	
21-Sep	14.0	2.0	3.5	22.2	559	2	25	50.0	42.9	48.9	
5-Oct	16.0	2.0	3.4	30.8	563	2	18	50.0	42.5	53.6	
19-Oct	16.5		16.4	50.1	808	2	16		58.0	60.6	
	<b>Temp (°C)</b>	<b>Secchi (m)</b>	<b>Chl-a (µg/l)</b>	<b>TP (µg/l)</b>	<b>TN (µg/l)</b>	<b>Algae Obsv.</b>	<b>N:P</b>	<b>Calculated TSI</b>			
								<b>Secc</b>	<b>chl-a</b>	<b>TP</b>	
<b>Mean</b>	17.9	2.1	16.6	32.6	632.6	2.3	23	49.3	50.1	52.3	<b>TSI Average = 50.6</b>
<b>Median</b>	16.3	2.0	5.1	22.7	553.5	2	23	50.0	46.6	49.2	
<b>Min</b>	9.5	2.0	1.2	16.9	450.0	1	11	48.0	32.4	44.9	
<b>Max</b>	25.5	2.3	104.0	96.2	1020.0	3	39	50.0	76.1	70.0	
<b>Count</b>	12	8	12	12	12	10	12	8	12	12	