

Fenwick

Lake Overview

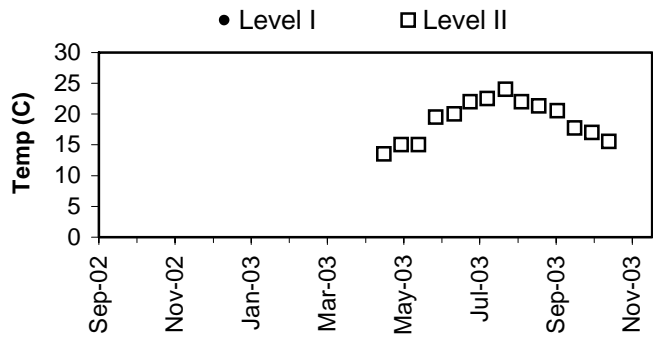
Volunteers monitored Lake Fenwick in 1994 -1995, and again in 2001 and 2003. The data indicate that this lake in the city of Kent is moderate to high in primary productivity (mesotrophic - eutrophic) with good to fair water quality. Since the lake surface makes up only 4% of the drainage area, direct rainfall is not as important as watershed inputs. There are no significant wetlands in the basin, other than the lake itself which is categorized as Class 2 (King County, 1990). Land use analysis of 2002 aerial photographs showed over 74% of the surrounding watershed has been developed for uses other than agriculture. Kent has run a program of artificial aeration of bottom waters for a number of years to limit internal phosphorus recycling.

Lake Fenwick has a public access boat ramp next to the city park. Brazilian elodea has established a large population in the lake, and monitoring for other noxious aquatic weeds should be continued.

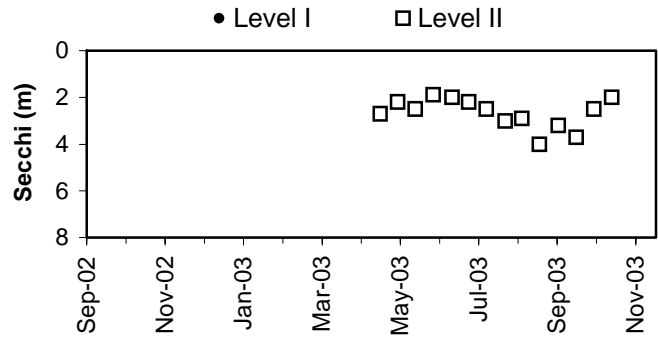
Physical Parameters

The Secchi transparency during the sampling season ranged between 1.9 and 4.0m. Level II surface water temperatures reached 24.0 degrees Celsius in late July. There were no precipitation or water level records for the water year.

Lake Temperature



Secchi Depth

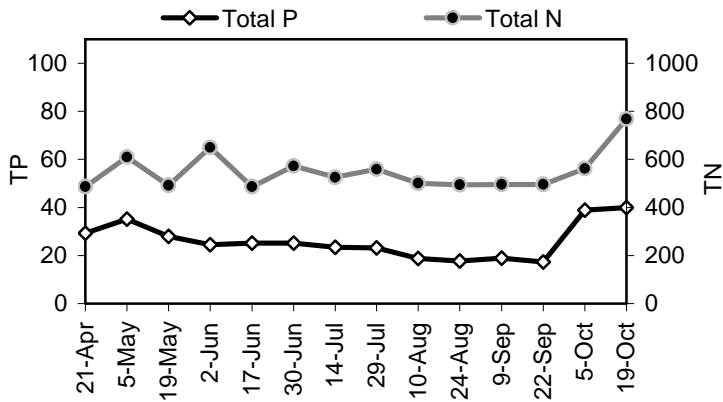


Lake Level and Precipitation

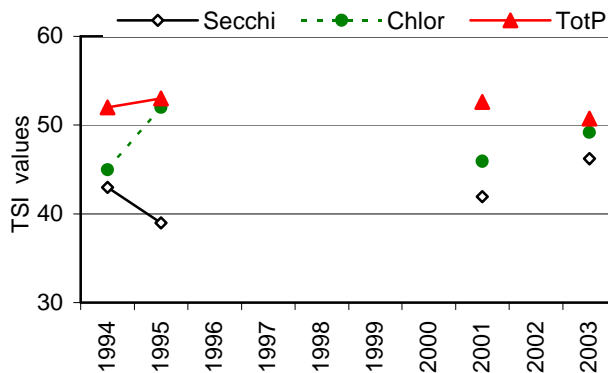
No Data Available

Fenwick

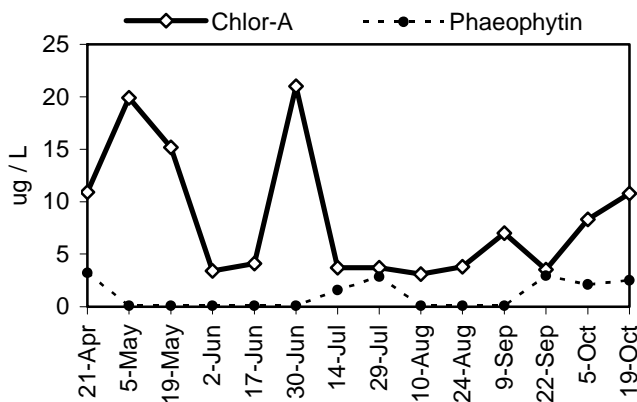
Nutrient Analysis



TSI Ratings



Chlorophyll a Concentrations (ug/L)



Nutrient Analysis and TSI Ratings

Both total nitrogen and total phosphorus remained relatively stable through the sampling period until late September, when both made significant increases. The N:P ratio ranged from 14 to 28, and the majority of the time indicated good conditions for bluegreen algal growth. The 2003 TSI-Chlor was slightly higher than the other TSI values, but all were closer together than in earlier years, placing at or just under the threshold for eutrophy.

Chlorophyll and Algae

Chlorophyll made peaks in May and the end of June, with a further, smaller rise in autumn. The phytoplankton species were dominated in spring and fall by the bluegreen *Aphanizomenon*. Other common algae included a variety of cryptophytes and an unidentified colonial species.

Common algae

Group

<i>Aphanizomenon flos-aquae</i>	bluegreen
unidentified colonial species	no determination
<i>Cryptomonas</i> spp.	cryptophyte

No Level I Data
Available For This Lake

