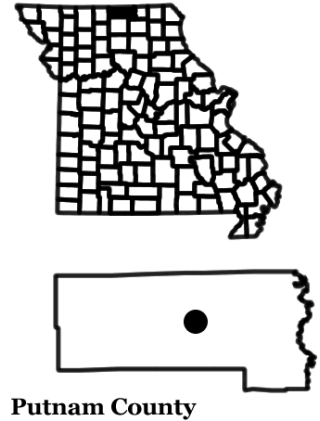
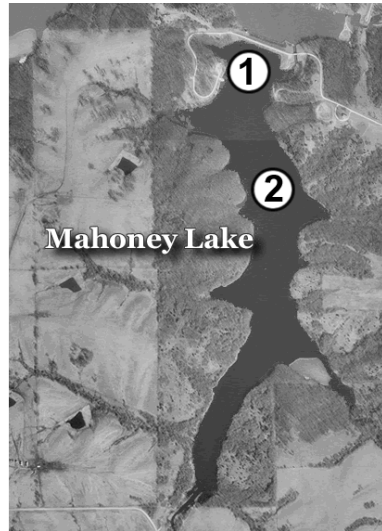


# Mahoney (Unionville City Lake)

Mahoney Lake was built in 1941 and has an area of about 75 acres. The lake provides drinking water for the city of Unionville in Putnam County. The watershed is 46% pasture/grassland, 21% row crop and about 16% forest.

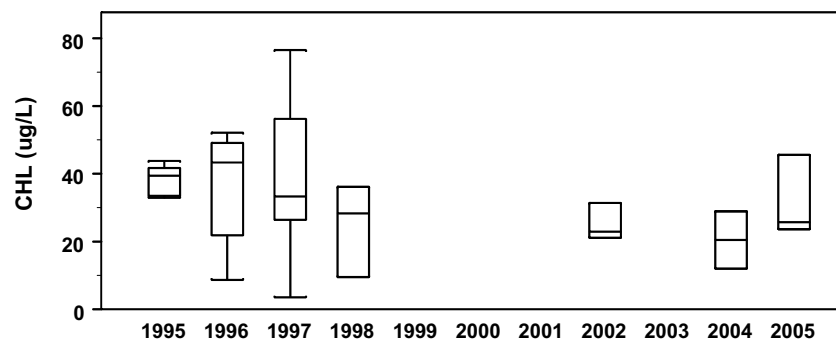


Location of Mahoney Lake

- Nutrients and chlorophyll track each other quite well in Mahoney Lake during 2005, though the abridged sample season (only 3 samples) makes it difficult to evaluate seasonal trends.
- Water quality at the two sites was comparable, with only suspended sediments (ISS) showing any real longitudinal gradient between the sites.
- Geometric mean phosphorus, nitrogen and chlorophyll for both sites were higher than observed in 75% of Missouri lakes, suggesting that this lake is productive by Missouri standards.

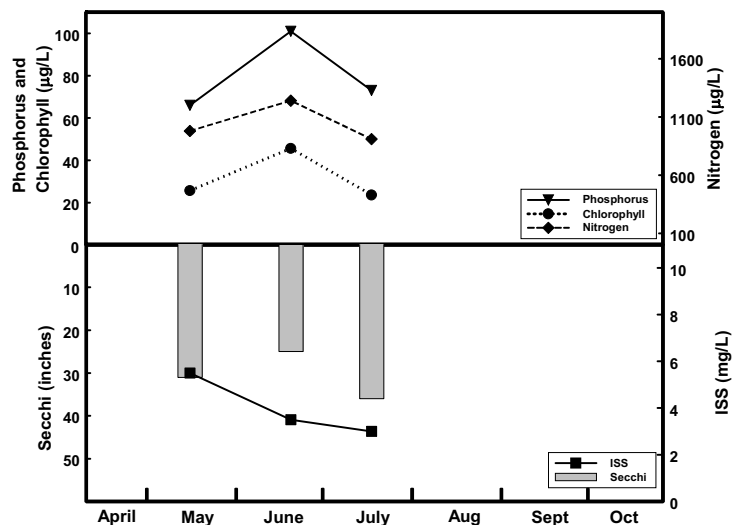
## Chlorophyll trends in Mahoney Lake, Site 1

Chlorophyll concentrations in Mahoney Lake show no apparent trend. While 2005 concentrations were higher than those of 2004, they are still well within the range of values historically observed at the lake.



# Mahoney Lake, Site 1 (Unionville City Lake)

## Seasonal fluctuations of parameters for Mahoney Lake, Site 1 – 2005

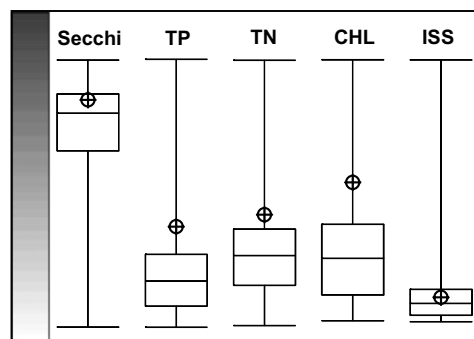


## Descriptive statistics for Mahoney Lake, Site 1 – 2005

	Secchi (inches)	TP (ug/L)	TN (ug/L)	CHL (ug/L)	ISS (mg/L)
<b>Geometric Mean</b>	30	79	1034	30.2	3.9
<b>Minimum</b>	25	66	910	23.6	3.0
<b>Maximum</b>	36	101	1240	45.6	5.5
<b>Number of Samples</b>	3	3	3	3	3

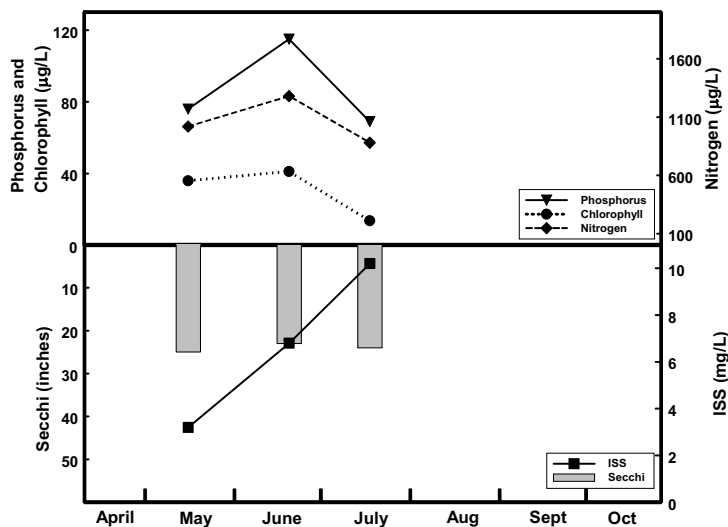
Nutrient and chlorophyll concentrations are quite high in Mahoney Lake, with concentrations higher than found in 75% of Missouri lakes.

### Relative Rank for Mahoney Lake, Site 1



# Mahoney Lake, Site 2 (Unionville City Lake)

## Seasonal fluctuations of parameters for Mahoney Lake, Site 2 – 2005



## Descriptive statistics for Mahoney Lake, Site 2 – 2005

	Secchi (inches)	TP (ug/L)	TN (ug/L)	CHL (ug/L)	ISS (mg/L)
<b>Geometric Mean</b>	24	84	1047	27.3	6.1
<b>Minimum</b>	23	69	880	13.7	3.2
<b>Maximum</b>	25	115	1280	41.2	10.2
<b>Number of Samples</b>	3	3	3	3	3

Aside from ISS concentrations, water quality conditions at Site 2 are nearly identical to Site 1. There was nearly twice as much suspended sediment (ISS) observed at Site 2, relative to Site 1.

### Relative Rank for Mahoney Lake, Site 2

