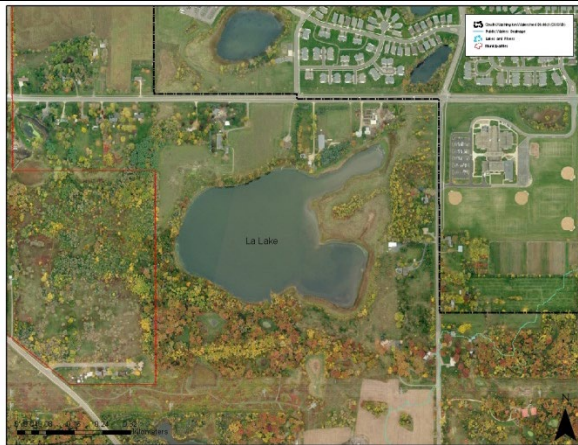




# SOUTH WASHINGTON WATERSHED DISTRICT

## La Lake

DNR ID #82-0097      Municipality: Woodbury  
 Surface Area: 45 Acres    Watershed Area: 81 Acres  
 Mean Depth: 6 feet      Maximum Depth: 10 feet  
 SWWD Maximum Allowable Phosphorus Load: 1.65 lbs/ac/yr  
 SWWD Trophic State Index (TSI) Goal: 60-65



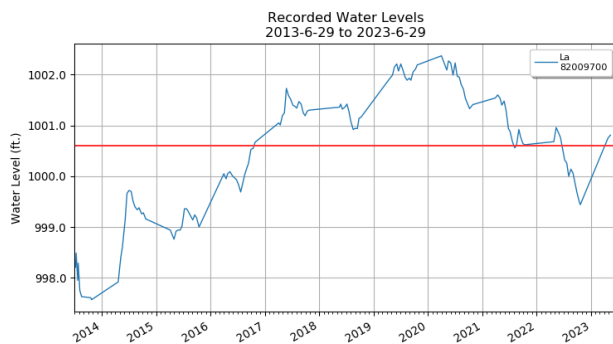
La Lake is a shallow basin within the East Mississippi watershed. The lake has a small drainage area that is predominantly undeveloped with a mix of natural habitat areas and some agricultural land use. Currently, however, no storm sewer outfalls discharge to the lake and previous existence of septic systems for the few residences around the lake is likely of little concern to the lake. This lake is classified as a wetland by the Minnesota DNR, and has been used in the past by MnDNR Fisheries as a walleye rearing pond.

Map 1: La Lake

A vegetation survey was completed in 2021. 100% of the lake is vegetated, though not at nuisance levels. Native species dominate although curly leaf pondweed is present. Spiny hornwort, a rare species in Minnesota, is quite abundant in La Lake. The dominant vegetative community helps maintain relatively clear water. SWWD and City of Woodbury will begin efforts to control curly leaf pondweed in 2023 to ensure that it does not become a nuisance.

La Lake does not routinely discharge under normal conditions and displays surface elevation trends (Figure 1) typical for land locked basins. With no outlet, the surface elevation rises during years of high precipitation and slowly falls during years with less precipitation. SWWD and City of Woodbury are working to design and construct a more controlled outlet for the lake.

Figure 1: La Lake Surface Elevation



SWWD sets a TSI goal of 60-65 for La Lake, corresponding to an allowable watershed Total Phosphorus (TP) loading rate of 1.65 lbs/ac/yr. SWWD's goal encompasses MnPCA water quality standards for shallow lakes in the region.

In-lake TP shows significant year to year differences and is down sharply since 2013 (Figure 2), meeting both State and SWWD benchmarks. Secchi Transparency has

routinely met or exceeded both SWWD and State benchmarks (Figure 3). There are significant year to year differences in Secchi Transparency; however there is not a consistent upward or downward trend. Rather, it appears that the lake goes through alternating clear and turbid phases. Year to year differences in chlorophyll a (Figure 4) are not significant. Overall, La Lake continues to improve compared to other metro lakes as graded by the Metropolitan Council (Table 1). In fact, La Lake is in the process of being delisted from the State’s impaired waters list. Though swimming is often impaired during the summer, both secchi transparency and chlorophyll a (measure of algae) are generally better than expected based on TP concentrations. This imbalance is reflective of the abundant vegetation community.

Figure 2: In-lake TP Concentration for La Lake

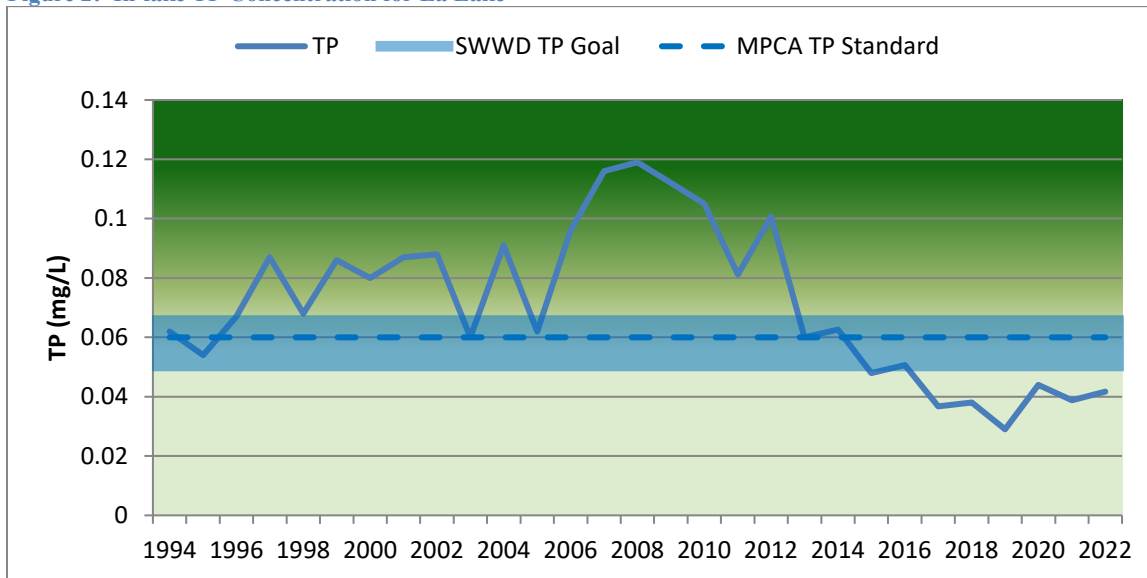


Figure 3: Secchi Transparency for La Lake

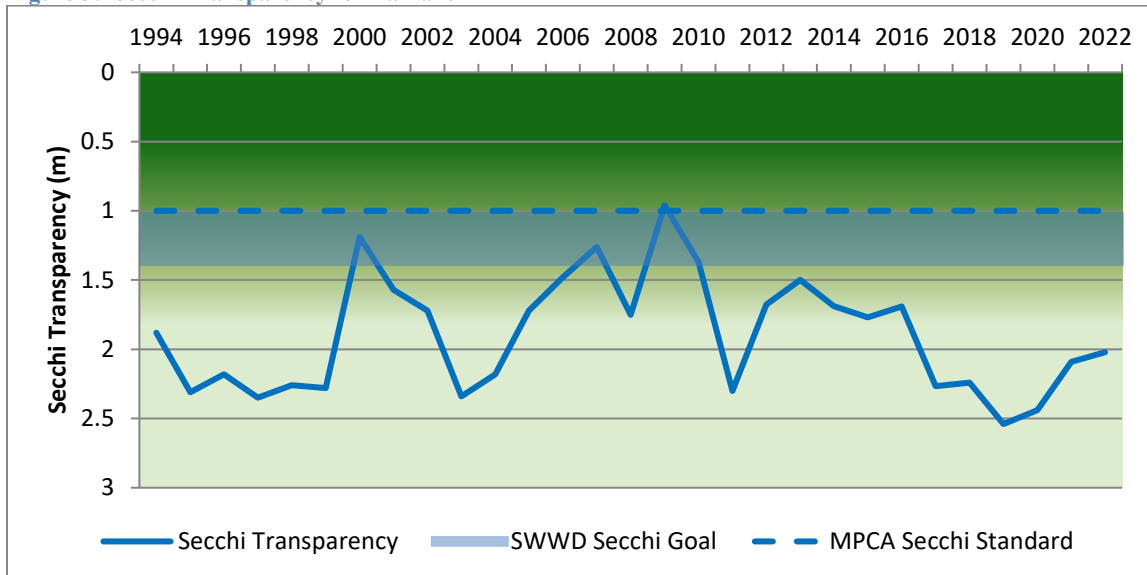


Figure 4: In-lake Chlorophyll a Concentration for La Lake

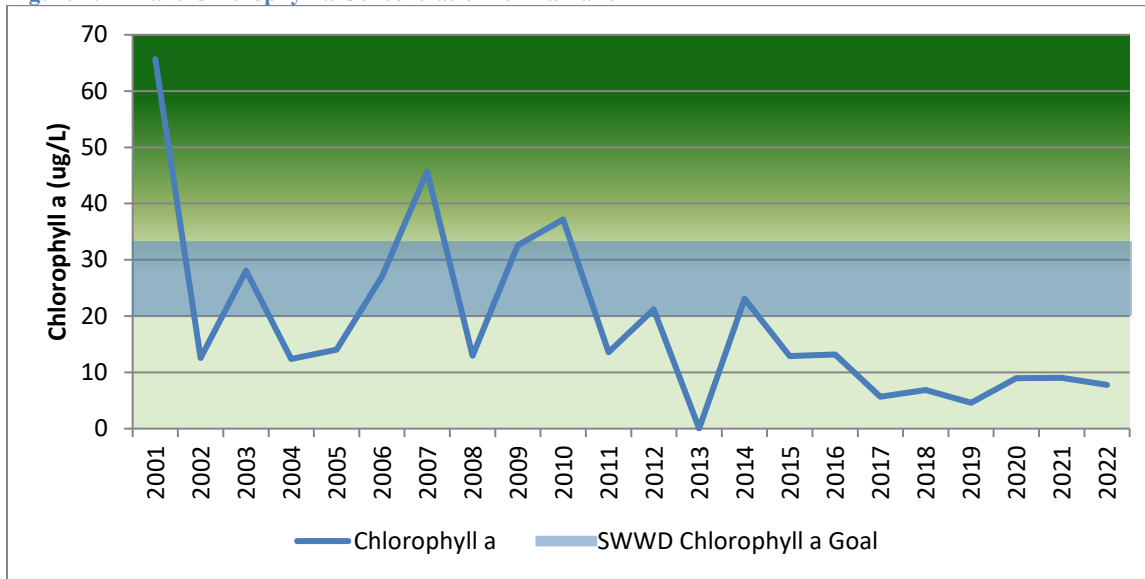


Table 1: Annual Lake Grades for La Lake

Parameter	Trophic Status	97	98	99	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22
<b>Total Phosphorus</b>	57; Eutrophic	D	C	D	D	D	D	C	D	C	D	D	D	D	D	D	F	C	C	C	C	B	B	B	C	B	C
<b>Chlorophyll</b>	52; Mesotrophic	C	B	C	C	C	B	C	B	B	C	D	B	C	C	B	C	B	C	B	B	A	A	A	A	B	A
<b>Secchi Transparency</b>	49; Mesotrophic	C	B	C	C	C	C	B	D	C	C	D	C	C	C	B	C	C	C	C	C	B	B	B	B	B	B
<b>Overall</b>	Eutrophic	C	B	C	C	C	C	C	C	C	C	D	C	C	C	C	D	C	C	C	C	B	B	B	B	B	B

Note: Lake Grades are based on comparison with other lakes in the Minneapolis-St. Paul metropolitan area. Criteria for assigning lake grades are established by the Metropolitan Council.