

# GEM LAKE



## QUICK FACTS

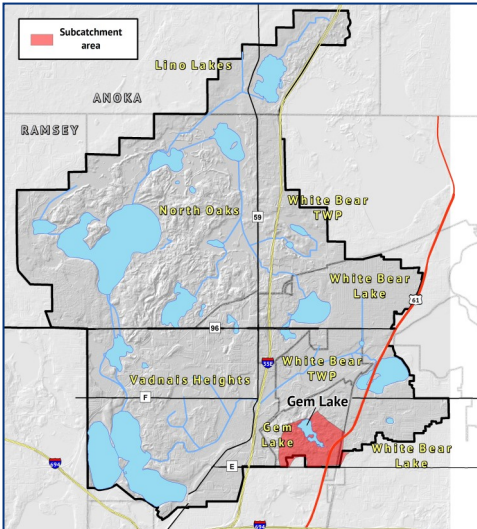
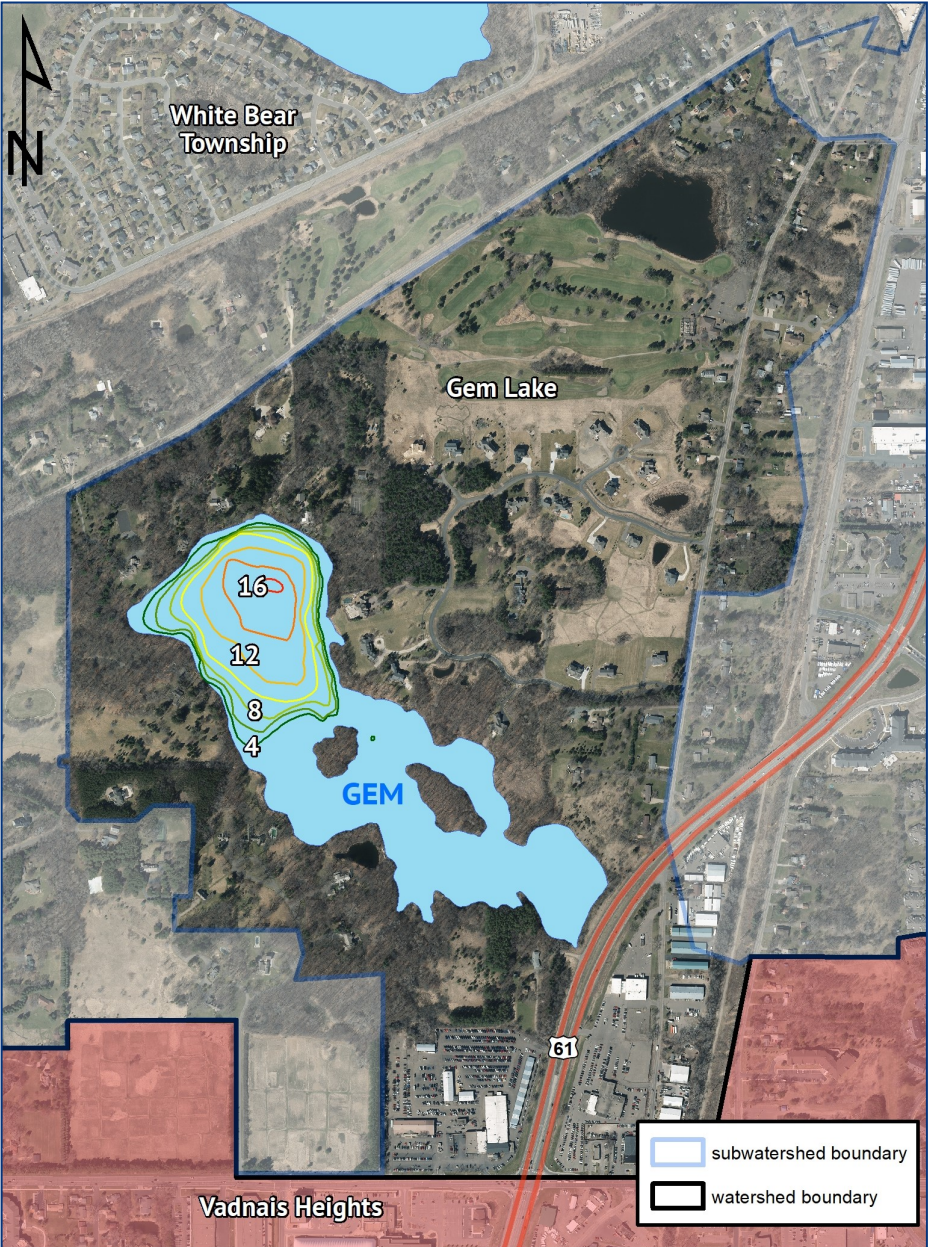
Lake Catchment Area	376 acres
Surface Area	40 acres
Maximum Depth	17 ft
Average Depth	7 ft

Common Fish
Black crappie

Predominant Vegetation
Clasping-leaf pondweed, Pickerel weed, White water lily, Arrowhead

Invasive Species
Purple Loosestrife

**LOCATION:** Gem Lake is located in the City of Gem Lake. It's surrounded by a mix of residential, industrial, and commercial properties. The lake's subwatershed includes portions of Highway 61 and County Road E.



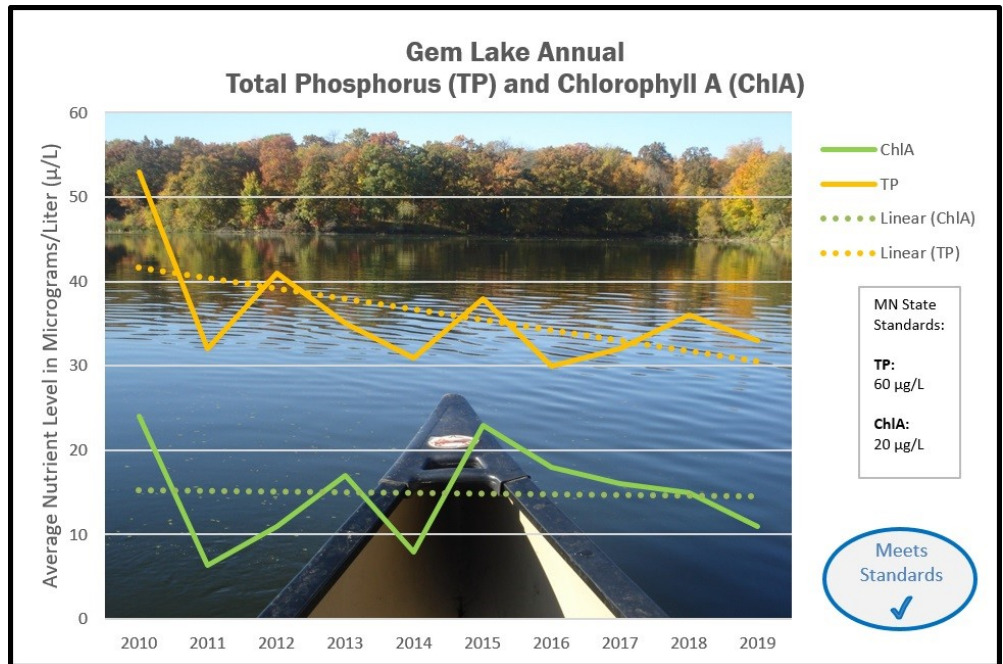
**LAKE SUMMARY:** Gem Lake was delisted from the State Impaired List in 2018. Gem Lake is unique in that it doesn't outlet to any other waterbodies within VLAWMO. Due to the privacy of the lake, waterfowl and wildlife are abundant. A 2011 fish survey indicated that Black crappie were the only fish species in the lake. This is likely due to winter fish kills that cause depleted oxygen levels. Winter kills are a natural occurrence in shallow lakes, which differ from deep lakes that stratify and hold more oxygen through the winter. VLAWMO staff monitor these events to maintain an understanding of the lake's needs.

## NUTRIENT SUMMARY:

Gem Lake is a lake success story boasting improved nutrient levels. The MN Pollution Control Agency waited several years to analyze the trend before officially delisting lake from the State impaired waters list. VLAWMO continue to monitor Gem Lake. As the City of Gem Lake experiences neighborhood and land use changes in the coming years, maintaining the lake's healthy water quality will be a team effort. Stormwater features such as raingardens, native plantings and groundcovers, and water-friendly yard care practices are ways to support Gem Lake. Visit [VLAWMO.org/residents](http://VLAWMO.org/residents) for tips, examples, and information on cost-share grants—which helps homeowners to help contribute to the team effort while creating drainage solutions.

### Trophic State Index (TSI):

A TSI rating is a calculation based on lake data averages. These values are used to compare lakes on a consistent scale.



Gem Lake	2019	Clear Oligotrophic		Moderately Clear Mesotrophic		Green Eutrophic		Very Green Hypereutrophic	
		20	30	40	50	60	70	80	
Trophic State Index (TSI): Overall		[Bar chart showing TSI Overall at approximately 55]							
TSI Transparency: Secchi Disk		[Bar chart showing TSI Transparency at approximately 55]							
TSI Chlorophyll A: ChIA		[Bar chart showing TSI ChIA at approximately 55]							
TSI Total Phosphorus: TP		[Bar chart showing TSI TP at approximately 55]							

## PROJECT HIGHLIGHT:

A ditch regrading and planting along Hwy 61 is a key project contributing to Gem Lake's improvement. The regrading allowed the ditch to act less like a channel and more like a swale, holding water instead of moving it away quickly. Water from Hwy 61 and nearby parking lots now gets filtered as it moves slowly through the swale, allowing sediment to settle out before reaching the lake. This strategy is also encouraged on private properties to promote long-term protection of Gem Lake.



Visit [VLAWMO.org/waterbodies](http://VLAWMO.org/waterbodies) for studies and reports on Gem Lake.