# **Hubbard County**

### Summary

Spider Lake has good water quality that's better than the expected ecoregion ranges. Long-term trend analysis shows that the water quality is stable. Potential lake impacts could come from shoreline runoff, septic systems and the inlet to the lake. Residents can continue best management practices to protect the water quality into the future.

### Lake Vitals

MN Lake ID: 29-0117-01

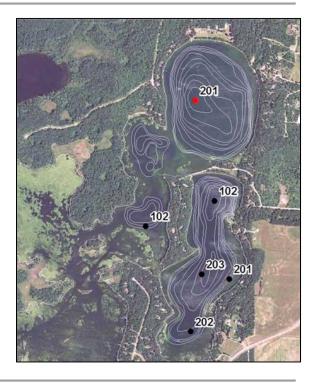
**Ecoregion:** Northern Lakes and Forests **Major Drainage Basin:** Upper Mississippi River

Surface area (acres): 569
Littoral area (acres): 405
% Littoral area: 71%
Max depth (ft), (m): 96, 29.3
Inlets / Outlets: 1 inlet / 1 outlet

Public Accesses

Development Class: Recreational Development

Aquatic Invasive Species: None Listed



# **Water Quality Characteristics**

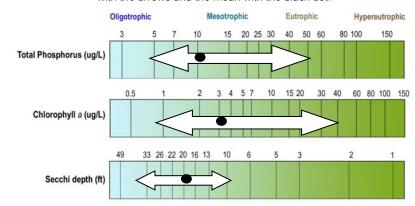
Years monitored: 1997-2017

#### Historical **Parameters** Phosphorus Mean (ug/L): 10.1 Phosphorus Min (ug/L): <5 Phosphorus Max (ug/L): 50.0 Number of Observations: 101 Chlorophyll-a Mean (ug/L): 3.1 Chlorophyll-a Min (ug/L): <1 Chlorophyll-a Max (ug/L): 39.0 **Number of Observations:** 100 Secchi Depth Mean (ft): 19.0 Secchi Depth Min (ft): 10.0 Secchi Depth Max (ft): 36.0 Number of Observations: 100

### **Trophic State Index**

Trophic State: Oligotrophic (36.8)

The figure below shows the minimum and maximum values with the arrows and the mean with the black dot.



## **Long-term Trends**

Primary site only. Recommend minimum of 8-10 years of data with 4+ readings per season. Minimum confidence accepted by MPCA is 90%

Data Quality Excellent

Total Phosphorus: No Significant trend exists

Chlorophyll-a: No Significant trend exists
Secchi Depth: No Significant trend exists

# **Ecoregion Comparisons**

(Primary site only. Comparisons are based on interquartile range, 25th - 75th percentile, for ecoregion reference lakes)

Ecoregion: Northern Lakes and Forests
Total Phosphorus: Below Expected range
Chlorophyll-a: Within expected Range
Secchi Depth: Above Expected Range