**Little Trout Lake Itasca County**

**Summary**

Little Trout Lake is located 20.3 miles southeast of Suomi, MN in Itasca County. It is a small lake covering 86 acres. There is no evidence of a transparency trend.

Little Trout Lake has one inlet and one outlet, which classify it as a drainage lake. Water enters Little Trout Lake from a stream on the west side and exits from a stream on the east of Little Trout Lake and carries water south to the Mississippi River.

Water quality data have been collected on Little Trout Lake from 1988-2015 (Tables 2 & 3). These data show that the lake is Oligotrophic (TSI = 37) with moderately clear water conditions most of the summer and excellent recreational opportunities.

**Little Trout Lake is part of the Wabana Chain of Lakes Association (WCOLA). The association is involved in activities such as water quality monitoring and education.**

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| **Lake Vitals** |  | **Long-term Trends** |
| **MN Lake ID:** | 31-0394-00 | Recommend minimum of 8-10 years of data with 4+ readings per season. Minimum confidence accepted by MPCA is 90% |
| **Ecoregion:** | Northern Lakes and Forests |
| **Major Watershed:** | Mississippi R. –Grand Rapids |  |
| **Surface area** | 86 acres |  |
| **% Littoral area:** | NA% | **Phosphorus:** Insufficient Data (1988, 1991, 1999, 2003, 2005, 2008, 2010, 2014) |
| **Max depth:** | 80 (ft) 24 (m) | **Chlorophyll-a:** Insufficient Data (1988, 1991, 2014) |
| **Aquatic Invasive Species:** | None | **Secchi Depth:** No Trend (1992-2001, 2004-2015) |

**Water Quality Characteristics**

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| **Parameters** | **Site202**  |  | **Trophic State Index** |
| Total Phosphorus Mean (ug/L): | **11.7** |  | **Trophic State:** Oligotrophic (37) |
| Total Phosphorus Min (ug/L): | <5 |  | The figure below shows the minimum and maximum values with the arrows and the mean with the black dot. |
| Total Phosphorus Max (ug/L): | 22 |  |
| Number of Observations: | 32 | TPCHLASD_gradients.jpg |  |  |
|   |  |  |  |  |
| Chlorophyll-a Mean (ug/L): | **2.1** |  |  |  |
| Chlorophyll-a Min (ug/L): | <1 |  |  |  |
| Chlorophyll-a Max (ug/L): | 7.1 |  |  |  |
| Number of Observations: | 26 |  |  |  |
|   |  |  |  |  |
| Secchi Depth Mean (ft): | **20.1** |  |  |  |
| Secchi Depth Min (ft): | 14.0 |  |  |  |
| Secchi Depth Max (ft): | 26.0 |  |  |  |
| Number of Observations: | 109 |  |  |  |

**Historical Data Summary**

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| **Monitoring Program** | **Laboratory** | **Years** |
| Citizen Lake Monitoring Program | - | 1988, 1990, 1992-2001, 2004-2015 |
| MPCA Lake Monitoring Program Project | - | 1988, 1991 |
| Wabana Chain of Lakes | Itasca Community College | 2010, 2014 |
| Wabana Chain of Lakes | Instrumental Research | 2005, 2008 |
| Wabana Chain of Lakes | MN Chippewa Tribe | 1999, 2003 |