

Minnesota Lake ID: 04-0030
Area: 16,321 acres
Watershed Area: 35,247 acres
Ecoregion: Northern Lakes and Forests (NLF)

NLAP ID: 0403
Maximum Depth: 120 ft
Mean Depth: 80 ft



Cass Lake Land Use



Legend

 Developed	 Forest
 Cultivated (Ag)	 Water
 Pasture & Open	 Wetland



Land Use	Cass Lake Land Use %	NLF Typical Land Use %
Developed	3	0 – 7
Cultivated (Ag)	2	<1
Pasture & Open	0	0 – 6
Forest	39	54 – 87
Water & Wetland	56	14 – 31
Feedlots (#)	0	

Minnesota 2000 Level 1 Landsat landcover
 Classification.img

University of Minnesota Remote & Geospatial Analysis Lab

Cass Lake 2007 as compared to typical range for NLF ecoregion reference lakes. Single NLAP visit based on U.S. Environmental Protection Agency protocol as compared to typical range for summer-means.

Parameter	Cass Lake	NLF
Number of reference lakes	1	32
Total Phosphorus (µg/L)	20	14 – 27
Chlorophyll-a (µg/L)	5	4 – 10
Secchi Disk (feet)	6.6	8 -15
(meters)	2.0	2.4 – 4.6
Total Kjeldahl Nitrogen (mg/L)	0.5	0.4 – 0.75
Alkalinity (mg/L)		40 – 140
Color (Pt-Co U)	3	10 – 35
pH (SU)	8.7	7.2 – 8.3
Chloride (mg/L)	4.9	0.6 – 1.2
Total Suspended Solids (mg/L)		<1 – 2
Total Suspended Inorganic Solids (mg/L)		<1 - 2
Conductivity (umhos/cm)	288	50 – 250
TN:TP ratio	25:1	25:1 - 35:1
Microcystin(µg/L)	Near Shore	<10 Low Risk
WHO risk Category*	Index Site	10-20 Moderate Risk
	<0.15	20- 200 High Risk

* Guidelines for safe recreational water environments (World Health Organization, 2003)

µg/L = micrograms per liter

mg/L = milligrams per liter

umhos/cm = micromhos per centimeter

Pt-Co-U = Platinum Cobalt Units

SU = Standard Units

Mixing Status: thermally stratified (dimictic)

**Temperature & Dissolved Oxygen Profile for
Cass Lake Sept. 5, 2007
Temp (C) and DO (mg/L)**

