



Minnesota Pollution Control Agency

520 Lafayette Road
St. Paul, MN 55155-4194

South Lake, McLeod County

National Lake Assessment Project (NLAP)

Sample Date: July 23, 2007

Minnesota Lake ID: 43-0014

Area: 174 acres

Watershed Area: 15,411 acres

Ecoregion: North Central Hardwoods Forests (NCHF)

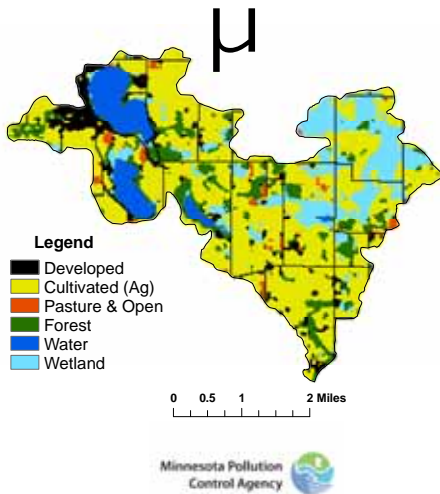
NLAP ID: 0167

Maximum Depth: 3 ft

Mean Depth: 2.5 ft



South Lake Land Use



Land Use	South Lake Land Use %	NCHF Typical Land Use %
Developed	11	2-9
Cultivated (Ag)	53	22-50
Pasture & Open	2	11-25
Forest	10	6-25
Water & Wetland	24	14-30
Feedlots (#)	13	

Minnesota 2000 Level 1 Landsat Landcover Classification.img

University of Minnesota Remote & Geospatial Analysis Lab

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

Parameter	South Lake	NCHF
Number of reference lakes	1	43
Total Phosphorus (µg/L)	1,184	23 - 50
Chlorophyll-a (µg/L)	936	5 - 22
Secchi Disk (feet)	0.3	4.9 - 10.5
(meters)	0.1	(1.5 - 3.2)
Total Kjeldahl Nitrogen (mg/L)	15.6	< 0.60 - 1.2
Alkalinity (mg/L)		75 - 150
Color (Pt-Co U)	35	10 - 20
pH (SU)	9.8	8.6 - 8.8
Chloride (mg/L)	338	4 - 10
Total Suspended Solids (mg/L)		2 - 6
Total Suspended Inorganic Solids (mg/L)		1 - 2
Conductivity (umhos/cm)	1386	300 - 400
TN:TP ratio	13:1	25:1 - 35:1
Microcystin(µg/L)	Near Shore	<10 Low Risk
WHO risk Category*	Index Site	10-20 Moderate Risk
	1.2	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: mixed with no temperature layer (polymictic)

**Temperature and Dissolved Oxygen Profile for South Lake. July 23, 2007.
 Temp. (C) and DO (mg/L)**

