Minnesota Pollution Control Agency
520 Lafayette Road
St. Paul, MN 55155-4194

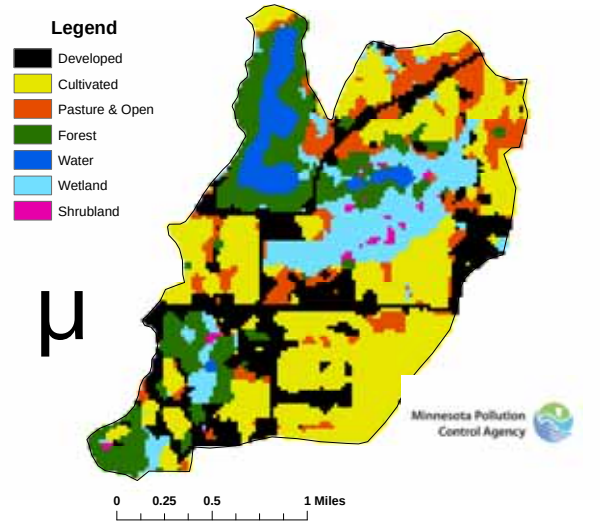
Long Lake, Wright County

National Lake Assessment Project (NLAP)
Sample Date: June 26, 2007

Minnesota Lake ID: 86-0069
Area: 88 acres
Watershed Area: 2,056 acres
Ecoregion: North Central Hardwoods Forests (NCHF)

NLAP ID: 0743
Maximum Depth: 30 ft
Mean Depth: 20 ft

Long Lake Land Use
Wright County



Minnesota 2000 Level 1 Landsat Landcover Classification.img University of Minnesota Remote and Geospatial Analysis Lab. Minnesota DNR: Minnesota Hydrologic Units-Sheds (polygons) 1998-2004.

Land Use	Long Lake Land Use %	NCHF Typical Land Use %
Developed	14	2-9
Cultivated (Ag)	43	22-50
Pasture & Open	10	11-25
Forest	16	6-25
Water & Wetland	17	14-30
Feedlots (#)	1	

Long 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. Data from Minnesota Department of Health (MDH) laboratory.

Parameter	Long Lake (MDH)	NCHF
Number of reference lakes	1	43
Total Phosphorus (µg/L)	22	23 - 50
Chlorophyll-a (µg/L)	5	5 - 22
Secchi Disk (feet) (meters)	7.22 2.2	4.9 - 10.5 (1.5 - 3.2)
Total Kjeldahl Nitrogen (mg/L)	0.79	< 0.60 - 1.2
Alkalinity (mg/L)	200	75 - 150
Color (Pt-Co U)	20	10 - 20
pH (SU)	7.9	8.6 - 8.8
Chloride (mg/L)	11	4 - 10
Total Suspended Solids (mg/L)	6.4	2 - 6
Total Suspended Inorganic Solids (mg/L)	3.6	1 - 2
Conductivity (umhos/cm)	425	300 - 400
TN:TP ratio	36:1	25:1 - 35:1
Microcystin(µg/L) WHO risk Category*	Near Shore Index Site <0.15	<10 Low Risk 10-20 Moderate Risk 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 and Dissolved Oxygen Profile for Long Lake (Wright Co.). June 26, 2007. Temp (C) and DO (mg/L)