



**Minnesota Pollution Control Agency**

520 Lafayette Road  
St. Paul, MN 55155-4194

# Lookout Lake, Crow Wing County

National Lake Assessment Project (NLAP)

Sample Date: August 13, 2007

**Minnesota Lake ID:** 18-0123

**Area:** 226 acres

**Watershed Area:** 3,062 acres

**Ecoregion:** Northern Lakes and Forests (NLF)

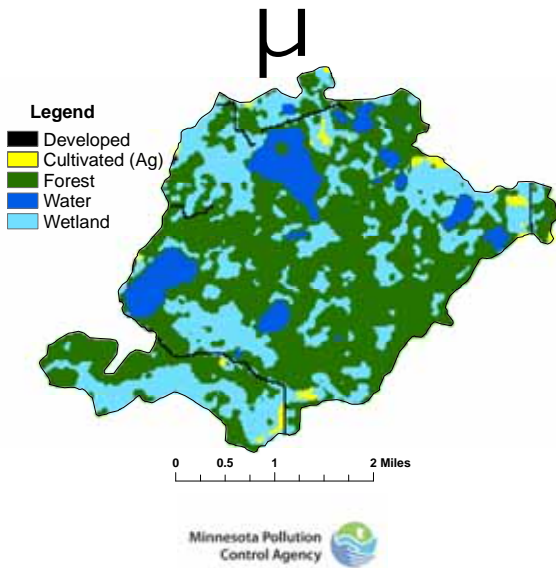
**NLAP ID:** 0771

**Maximum Depth:** 16 ft

**Mean Depth:** 8 ft



Lookout Lake Land Use



Land Use	Lookout Lake Land Use %	NLF Typical Land Use %
Developed	1	0 – 7
Cultivated (Ag)	1	<1
Pasture & Open	0	0 – 6
Forest	57	54 – 87
Water & Wetland	41	14 – 31
Feedlots (#)	0	

Minnesota 2000 Level 1 Landsat Landcover  
Classification.img

University of Minnesota Remote & Geospatial Analysis Lab

**Lookout 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	Lookout Lake	NLF
Number of reference lakes	1	32
Total Phosphorus (µg/L)	20	14 – 27
Chlorophyll-a (µg/L)	6	4 – 10
Secchi Disk (feet)	6.9	8 -15
(meters)	2.1	2.4 – 4.6
Total Kjeldahl Nitrogen (mg/L)	0.6	0.4 – 0.75
Alkalinity (mg/L)		40 – 140
Color (Pt-Co U)	18	10 – 35
pH (SU)	8.8	7.2 – 8.3
Chloride (mg/L)	1.2	0.6 – 1.2
Total Suspended Solids (mg/L)		<1 – 2
Total Suspended Inorganic Solids (mg/L)		<1 - 2
Conductivity (umhos/cm)	64	50 – 250
TN:TP ratio	31:1	25:1 - 35:1
Microcystin(µg/L)	Near Shore	<10 Low Risk
WHO risk Category*	Index Site	10-20 Moderate Risk
	4.7	20- 200 High Risk
	4	

\* 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 Lookout Lake. August 13, 2007.  
 Temp (C) and DO (mg/L)**

