



Minnesota Pollution Control Agency

520 Lafayette Road
St. Paul, MN 55155-4194

Aspen Lake, Cook County

National Lake Assessment Project (NLAP)

Sample Date: July 30, 2007

Minnesota Lake ID: 16-0204

Area: 146 acres

Watershed Area: 21,828 acres

Ecoregion: Northern Lakes and Forests (NLF)

NLAP ID: 0890

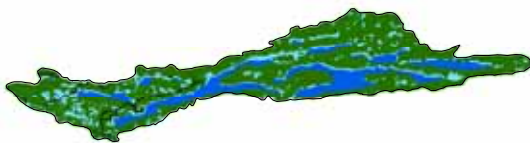
Maximum Depth: 29 ft

Mean Depth: 15 ft



Aspen Lake Land Use
Cook County

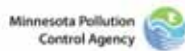
μ



0 2 4 Miles

Legend

- Developed
- Forest
- Water
- Wetland



Minnesota 2000 Level 1 Landsat Landcover
Classification.img

University of Minnesota Remote & Geospatial Analysis Lab

Land Use	Pine MT. Lake Land Use %	NLF Typical Land Use %
Developed	2	0 – 7
Cultivated (Ag)	0	<1
Pasture & Open	0	0 – 6
Forest	68	54 – 87
Water & Wetland	30	14 – 31
Feedlots (#)	0	

Aspen 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	Aspen Lake	NLF
Number of reference lakes	1	32
Total Phosphorus (µg/L)	8	14 – 27
Chlorophyll-a (µg/L)	3	4 – 10
Secchi Disk (feet)	12.1	8 -15
(meters)	3.7	2.4 – 4.6
Total Kjeldahl Nitrogen (mg/L)	.4	0.4 – 0.75
Alkalinity (mg/L)		40 – 140
Color (Pt-Co U)	28	10 – 35
pH (SU)	7.3	7.2 – 8.3
Chloride (mg/L)	2.6	0.6 – 1.2
Total Suspended Solids (mg/L)		<1 – 2
Total Suspended Inorganic Solids (mg/L)		<1 - 2
Conductivity (umhos/cm)	51	50 – 250
TN:TP ratio	56:1	25:1 - 35:1
Microcystin(µg/L)	Near Shore	<10 Low Risk
WHO risk Category*	Index Site	10-20 Moderate Risk
	<0.15	0.3
		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 Aspen Lake. July 30, 2007.
Temp. (C) and DO (mg/L)**

