



Minnesota Pollution Control Agency

520 Lafayette Road
St. Paul, MN 55155-4194

Maine (Round) Lake, Otter Tail County

National Lake Assessment Project (NLAP)

Sample Date: July 25, 2007

Minnesota Lake ID: 56-0476

Area: 85 acres

Watershed Area: 4,372 acres

Ecoregion: North Central Hardwoods Forests (NCHF)

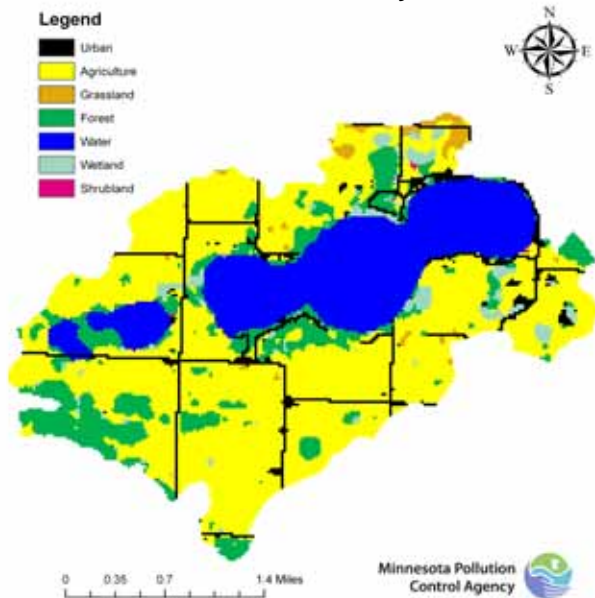
NLAP ID: 1198

Maximum Depth: 34 ft

Mean Depth: 20 ft



Maine (Round) Lake Land Use,
Otter Tail County



Land Use	Maine Lake Land Use %	NCHF Typical Land Use %
Developed	6	2-9
Cultivated (Ag)	47	22-50
Pasture & Open	0	11-25
Forest	19	6-25
Water & Wetland	28	14-30
Feedlots (#)	1	

Minnesota 2000 Level 1 Landsat Land cover
Classification .img

University of Minnesota Remote & Geospatial Analysis Lab

Maine 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	Maine (MDH)	NCHF
Number of reference lakes	1	43
Total Phosphorus (µg/L)	11	23 - 50
Chlorophyll-a (µg/L)	3	5 - 22
Secchi Disk (feet)	6.6	4.9 - 10.5
(meters)	2.1	(1.5 - 3.2)
Total Kjeldahl Nitrogen (mg/L)	0.59	< 0.60 - 1.2
Alkalinity (mg/L)	150	75 - 150
Color (Pt-Co U)	5	10 - 20
pH (SU)	9.1	8.6 - 8.8
Chloride (mg/L)	7	4 - 10
Total Suspended Solids (mg/L)	2	2 - 6
Total Suspended Inorganic Solids (mg/L)	0.4	1 - 2
Conductivity (umhos/cm)	311	300 - 400
TN:TP ratio	54:1	25:1 - 35:1
Microcystin(µg/L)	Near Shore	<10 Low Risk
WHO risk Category*	Index Site 0.25 <0.15	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
Maine Lake. July 25, 2007.
Temp (C) and DO (mg/L)

