



Minnesota Pollution Control Agency

520 Lafayette Road
St. Paul, MN 55155-4194

Lake Alruss, St. Louis County

National Lake Assessment Project (NLAP)

Sample Date: July 16, 2007

Minnesota Lake ID: 69-0005

Area: 29 acres

Watershed Area: 15,482 acres

Ecoregion: Northern Lakes and Forests (NLF)

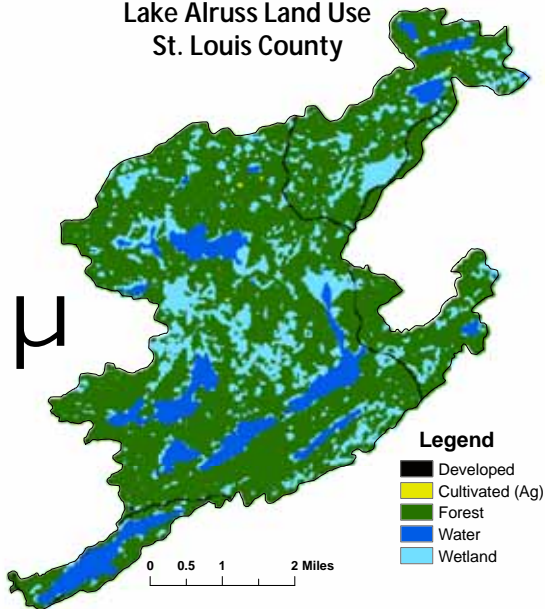
NLAP ID: 1102


Maximum Depth: 48 ft

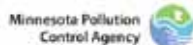
Mean Depth: 25 ft



Lake Alruss Land Use
St. Louis County



Minnesota 2000 Level 1 Landcover Classification



Land Use	Lake Alruss Land Use %	NLF Typical Land Use %
Developed	1	0 – 7
Cultivated (Ag)	0	<1
Pasture & Open	0	0 – 6
Forest	70	54 – 87
Water & Wetland	29	14 – 31
Feedlots (#)	0	

Lake Alruss 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.

Data from Minnesota Department of Health (MDH) laboratory.

Parameter	Alruss	NLF
Number of reference lakes	1	32
Total Phosphorus (µg/L)	4	14 – 27
Chlorophyll-a (µg/L)	2	4 – 10
Secchi Disk (feet)	3.9	8 -15
(meters)	1.2	2.4 – 4.6
Total Kjeldahl Nitrogen (mg/L)	0.2	0.4 – 0.75
Alkalinity (mg/L)		40 – 140
Color (Pt-Co U)	4	10 – 35
pH (SU)		7.2 – 8.3
Chloride (mg/L)	0.2	0.6 – 1.2
Total Suspended Solids (mg/L)		<1 – 2
Total Suspended Inorganic Solids (mg/L)		<1 - 2
Conductivity (umhos/cm)	15.5	50 – 250
TN:TP ratio	58:1	25:1 - 35:1
Microcystin(µg/L)	Near Shore	<10 Low Risk
WHO risk Category*	Index Site <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 Alruss Lake. July 15, 2007.

