Citizen Lake-Monitoring Program

2005 Report on the Transparency of Minnesota Lakes

Minnesota Pollution Control Agency

Environmental Analysis and Outcomes Division
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This report was prepared by Pam Anderson.

Volunteer lake monitors are one of Minnesota's most important lake water quality tracking systems. The Minnesota Pollution Control Agency thanks the Citizen Lake-Monitoring Program volunteers for their efforts in collecting water quality data. Their efforts toward protecting the surface waters of Minnesota are greatly appreciated.

Special thanks to the following individuals for their contributions in preparing this report:

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Introduction

The Citizen Lake-Monitoring Program (CLMP) began in 1973 at the University of Minnesota, and was developed by Dr. Joe Shapiro. During that first year, volunteers monitored 74 lakes. Administration of the CLMP was transferred to the Minnesota Pollution Control Agency (MPCA) in 1978. This program continues to be a cost-effective mechanism for obtaining good, basic, water quality data on many of our State's lakes.

Good water quality is important for healthy ecosystems and for supporting tourism. The participation of citizen volunteer monitors in the CLMP effectively increases the monitoring capabilities of the state. Volunteers provide the state and others with valuable information on the water quality of Minnesota's lakes. Information about the water quality of Minnesota's lakes is vital for assessing their physical condition and recreational suitability.

The CLMP involves voluntary participation of citizens residing on or near lakes or those who are frequent lake users. These participants are asked to take weekly transparency measurements on their lake during the summer using a Secchi disk. At least eight to ten readings per season are needed to adequately define each summer's water quality. Through this process, the volunteers can learn about the water quality of lakes in their area and gain a greater awareness of the causes and effects of lake degradation.

Data from the CLMP are entered into the U.S. Environmental Protection Agency's water quality database (called STORET) along with all other water quality data collected by the Minnesota Pollution Control Agency (MPCA). For many lakes, CLMP data is the ***only*** water quality information available. These data are used to analyze water quality trends, characterize trophic status, provide ground truthing for remote satellite water quality imagery, and provide a basis for water quality goal setting.

Several topics will be covered in this report. First, a discussion of what Secchi depth transparency means – how it is related to water quality. Following that will be two sections on how, using Secchi transparency data, lakes can be compared and lake trophic status can be determined. A brief summary of the 2005 water monitoring season will follow. A discussion on water quality trends and an update on the CLMP+ Program will follow with an example of determining a trophic state index for a lake wrapping up the section. Appendix I will contain seasonal averages, sorted by county, for all lakes, sites, and volunteers who participated in the 2005 season. Appendix II will contain the most recent water quality trend determination. This trend data was in previous years distributed via a fact sheet.

Secchi Transparency – What does it measure, and what can alter it?

Secchi transparency is a measure of the depth of light penetration in the water column. These measurements provide a basis for assessing water quality, estimations of trophic status (biological productivity), and documentation of trends in water quality over time. Secchi transparency (clarity) can vary greatly among Minnesota's lakes. In many Minnesota lakes, Secchi transparency provides an indirect measure of the amount of algae in the water (see trophic state index).

In some lakes, suspended sediments or color due to dissolved organic material may limit transparency. Precipitation is another factor that can affect the water quality of Minnesota's lakes. In "wet years," excessive precipitation in a lake's watershed often leads to high amounts of runoff and high nutrient loading. This may result in increased algae, and possibly increased suspended sediments in the lake, leading to reduced transparency; however, these impacts may be moderated by increased "flushing" of the lake. In "dry years," the inverse may be true and some lakes may experience increased transparency during periods of low runoff and decreased nutrient loading. It is important to note that no two lakes respond in exactly the same fashion to "wet" or "dry" years. Several consecutive years of monitoring are often needed to understand how your lake responds to climatic changes.

On a statewide basis, precipitation in many areas across the state were typically 4 to 6 inches above normal in 2005 (Figure 1b). North central and northeastern Minnesota experienced normal rainfall levels, but western and southern Minnesota experienced 6 to 10 inches above normal. This can sometimes impact the water quality of area lakes because excess precipitation can cause more runoff and nutrient loading.

Ecoregions and Lake Water Quality

Ecoregions are areas of similar soil, geomorphology, land use, and potential natural vegetation. These provide a good basis for comparing differences and similarities in Minnesota's lakes by grouping lakes according to their physical characteristics (i.e. grouping lakes with forested shores and rocky substrates together). The U.S. Environmental Protection Agency (EPA) divided Minnesota into seven fairly distinct ecoregions (Figure 1).

Reference lakes, which are representative and minimally impacted by surrounding land-use, were sampled by the MPCA to characterize trophic status (biological productivity) conditions for each ecoregion (Heiskary and Wilson, 1989). This yields a baseline for comparison to other lakes. In other words, the reference lakes are the yardsticks by which we measure other lakes. Below is a description of the four ecoregions that contain 98 percent of Minnesota's lakes. Table 1 (and Figure 2) lists typical Secchi readings for reference lakes in each ecoregion.

The Northern Lakes and Forests ecoregion (NLF) is predominately forested with numerous lakes and is located in the northeastern part of Minnesota (Figure 1). These lakes tend to be deep, relatively small, and stratify (form layers) during the summer. The North Central Hardwood

Figure 1a. Water Year Precipitation Map.

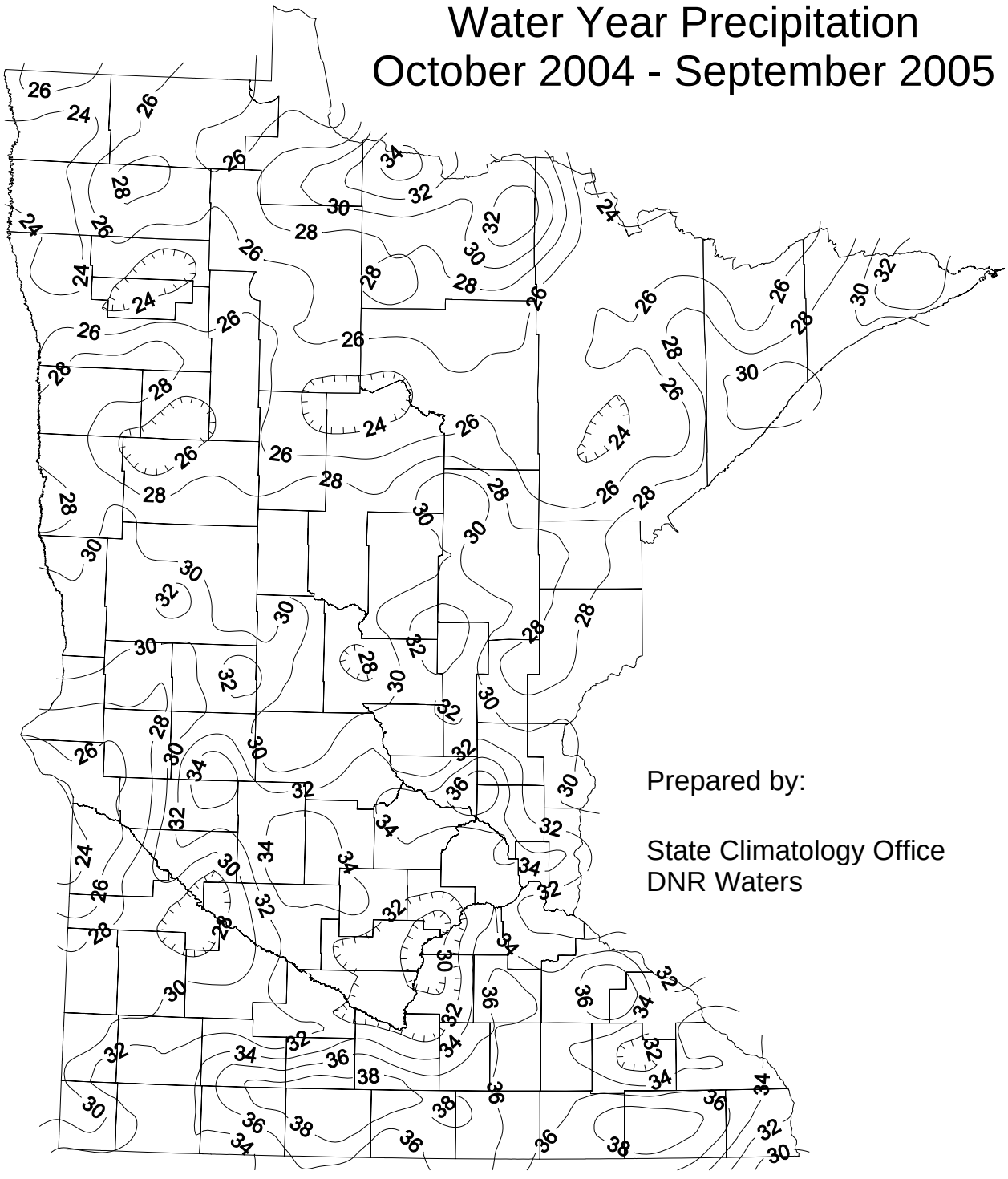
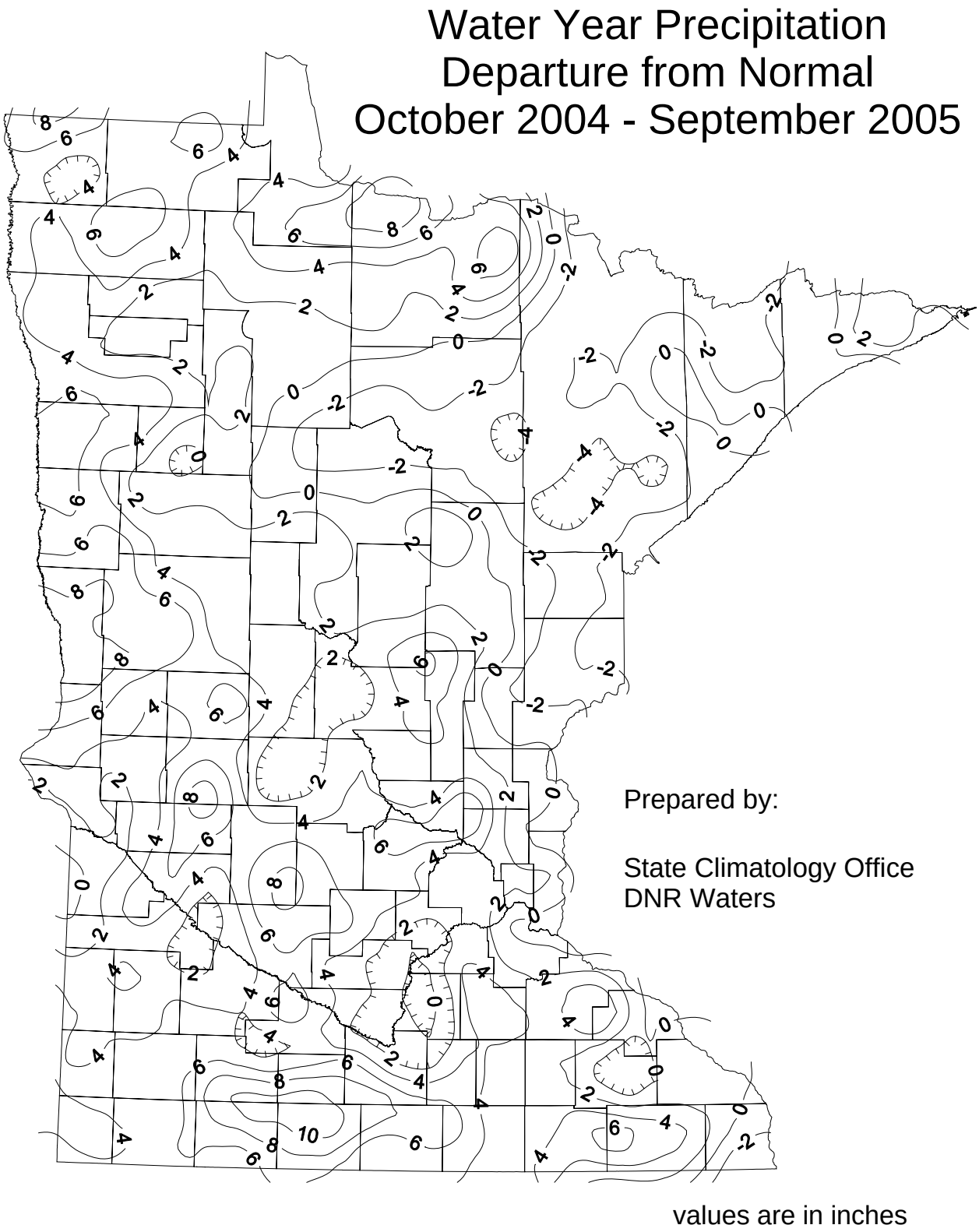


Figure 1b. Departure from Normal Precipitation Map.



Forests Ecoregion (NCHF) is a transitional region and stretches from the northwestern part of Minnesota to east central Minnesota and includes the Twin Cities area. It has numerous lakes in rolling terrain with various land uses and a high population density. Lakes in this ecoregion also tend to be deep and have relatively small surface areas. The Western Corn Belt Plains ecoregion (WCBP) is located in the southern one-third of Minnesota. It has rolling terrain and is extensively cultivated with row crops. WCBP lakes tend to be shallow, well mixed, and have relatively large surface areas. The Northern Glaciated Plains ecoregion (NGP) is located along the southwestern half of the state. It is similar to the WCBP ecoregion in many ways, also having rolling terrain and extensive cultivation of row crops. It typically has a lower precipitation rate and higher evaporation rate than the WCBP ecoregion. The lakes in the NGP ecoregion are typically shallow and do not stratify (form layers) during the summer.

Lakes of similar make up (soils, depth, land use, etc.) can be compared against the ranges of values expected in a specific ecoregion. To do this, determine the ecoregion in which the lake(s) of interest is located. Next, compare the summer mean Secchi depth (June to September) to the ranges below (Table 1). If the Secchi depth falls below (shallower) the range listed, the lake is in the lower 25% of lakes for clarity – poorer clarity than the expected range for lakes of that ecoregion. If the Secchi transparency is deeper than the range listed, the lake is in the upper 25% of lakes for the ecoregion – better clarity than the expected range. If a lake is on the border of two ecoregions, the clarity will often overlap the ranges of the ecoregions it spans. These lakes would be in a transition zone between ecoregions, and a closer look at land use, soil type, and vegetation may be required to determine which ecoregion is the best fit.

Table 1. Summer Mean Secchi Transparency Measures by Ecoregion.
Based on interquartile ranges for reference lakes.[1]

Parameter	Northern Lakes And Forests	North Central Hardwood Forests	Western Corn Belt Plains	Northern Glaciated Plains
Secchi (feet)	8 -15	4.9 - 10.5	1.6 - 3.3	1.0 - 3.3
Secchi (meters)	2.4 - 4.6	1.5 - 3.2	0.5 - 1.0	0.3 - 1.0

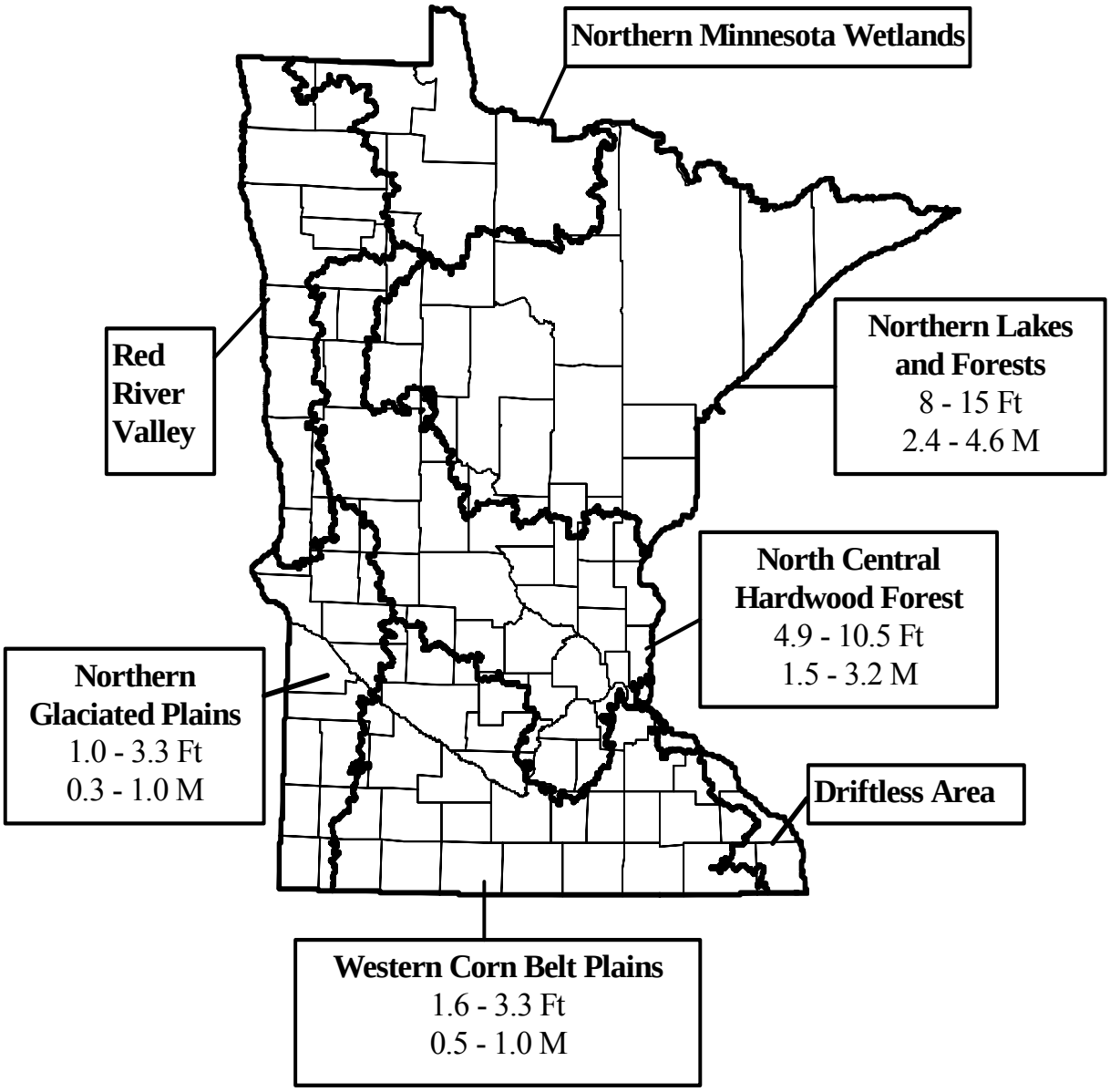
[1] Interquartile range is determined by sorting measures from lowest to highest and represents those measures between the 25th and 75th percentile.

Trophic State Index

While the ecoregion classification allows for comparison between lakes of a similar origin, land uses, etc., the Trophic State Index allows for comparison of any lakes, independent of their location or land use.

Secchi transparency data can be used to convey information on the quality of lakes and allow for estimation of the amount of algae (chlorophyll-*a*) and nutrients (phosphorus) in a lake. Carlson's Trophic State Index (TSI) is a common means for characterizing a lake's trophic state (fertility and resulting biological productivity).

Figure 2. Typical Summer-Mean Secchi Transparency.
Based on Interquartile Ranges for Reference Lakes



The term "trophic status" refers to the level of biological productivity in a lake as measured by phosphorous content, algae abundance, and depth of light penetration. Carlson's Trophic State Index (Carlson 1977) is one means available to examine the relationship between total phosphorus, chlorophyll-*a*, and Secchi disk readings in a lake and its overall productivity. Individual TSI values can be calculated from the following equations:

Total phosphorus TSI (TSIP) = 14.42*[ln(TP average)] + 4.15

Chlorophyll-*a* TSI (TSIC) = 9.81*[ln(Chlorophyll-*a* average)] + 30.6

Secchi disk TSI (TSIS) = 60 - (14.41*[ln(Secchi average)])

Total phosphorus and chlorophyll-*a* are measured in micrograms per liter (µg/L) and Secchi disk transparency is measured in meters (3.281 feet per meter). The ln function in these equations is the "natural log" which is different than the "log" function. [The ln key is generally found next to the log key on most calculators.]

The TSI scale ranges from 0 (ultra-oligotrophic – very nutrient poor, low vegetation or algae) to 100 (hypereutrophic – very nutrient rich, high amounts of vegetation or algae). High and or increasing trophic status values indicate more eutrophic conditions (higher productivity). Although total phosphorus and chlorophyll-*a* concentrations are not measured in the basic CLMP program, the summer-mean Secchi transparency generally provides a good indication of trophic status for Minnesota's lakes and can be used to estimate likely ranges of total phosphorus and chlorophyll-*a* for most lakes.

2005 CLMP Secchi Season Summary

During the 2005 monitoring season, 1,136 CLMP volunteers monitored 1,095 lakes (Figure 3) taking 16,284 individual Secchi readings. The statewide seasonal mean transparency for the 2005 season was 9.9 feet. Sabin Lake (Embarrass Pit) in St. Louis County monitored by Ed and Lee Steblay had the ***deepest individual*** Secchi transparency reading (54 feet on 8/30/2005). Five lakes -- Clearwater, Caribou, Gilbert Pit, Little Web, and Sabin Lake (Embarrass Pit) -- had ***summer average*** Secchi transparency readings of 30 feet or more in 2005. Clearwater Lake (Cook County) had readings at six different sites with summer average readings that ranged from 32.3 to 35.0 feet. Caribou Lake (Itasca County) had two sites averaging 34.6, and 35.4 feet. Gilbert Pit (St. Louis County) had one site which had a summer average of 38.0 feet. Little Web Lake (Cass County) had one site with a summer average of 37.0 feet. Sabin Lake (Embarrass Pit) averaged 46.8 feet for 2005. Eight lakes had ***summer average*** Secchi transparency readings of less than one foot in 2005. These lakes were Benton Lake in Carver County (0.8 feet); Long Lake in Meeker County (0.8 feet); [1]Augusta Lake in Dakota County (0.8 feet); Campbell Lake in Carver County (0.8 feet); Gaystock Lake in Carver County (0.7 feet); Isabel Lake in Dakota County (0.6 feet); Wakanda Lake (Main Bay) in Kandiyohi County (0.6 feet); and State Line Lake in Freeborn County (0.6 feet). Three lakes had ***maximum individual*** Secchi transparency readings of one foot or less. These lakes included Wakanda (Main Bay) in Kandiyohi County (0.8 feet), Augusta Lake in Dakota County (0.8 feet), and State Line Lake in Freeborn County (0.7 feet).

Itasca County had 93 lakes monitored by citizens, making it the county with the highest citizen monitoring. The counties with the next highest number of lakes monitored in 2005 were Crow Wing County with 82 lakes and Saint Louis County with 81 lakes. Eleven counties only had one lake monitored by CLMP volunteers. Twenty six counties had no citizen lake monitoring activities in 2005.

[1] Augusta Lake (Dakota County) had only one Secchi disk reading in the June to September window for the 2005 monitoring season.

Summer-mean, minimum, and maximum Secchi values were calculated for each CLMP site. Individual 2005 summer-mean (June through September) Secchi transparency data for each site and participant names are listed in Appendix I. **It is important to note that only data collected for the Citizen Lake-Monitoring Program was used to calculate the values found in this appendix.**

Water Quality Trends

Detecting trends in water quality over time is a primary goal for many lake programs. For Minnesota Pollution Control Agency (MPCA) analysis, detecting trends requires taking a minimum of 4 readings each summer for 8 to 10 years. Secchi transparency is one of the best parameters for determining a lake's overall health (trophic status) and assessing trends in Minnesota lakes. Transparency is a preferred parameter for many reasons: low cost, easily incorporated in existing lake monitoring programs, and it allows for the collection of a large number of samples in a given sampling period on many different lakes. Transparency of a lake may vary from year to year in response to changes in amounts of algae, watershed runoff, precipitation and many other factors. It is important to consider all of these aspects when determining if any significant long-term changes have occurred, or if changes are random in nature. All available Secchi transparency data from STORET (U.S. EPA's national water quality database) were used for the 2004 assessments. The majority of the data collected is from volunteer lake monitors in the MPCA's Citizen Lake-Monitoring Program (CLMP).

For our trend analysis, we ran Kendall statistical tests using WQ Stat Plus^{TM} software on lakes with 4 or more transparency readings per summer (June – September) and 8 or more years of data. We used a probability (p) level of $p \leq 0.1$. At this p-level, there is a 10 percent chance of identifying a trend when it does not exist.

There were 876 lakes in Minnesota that met the minimum requirements for trend analysis. Of the 876 assessed lakes, 249 of them exhibited a statistically significant improvement in transparency over time. In contrast, only 56 lakes exhibited a statistically significant decline in transparency. The remaining 571 lakes exhibited no change in transparency over time.

Appendix II contains the results for all lakes that met the minimum requirements for statistical trend analysis. Figure 5 shows a state wide map depicting detected trends.

Figure 3. Number of CLMP Lakes Monitored by County – 2005.

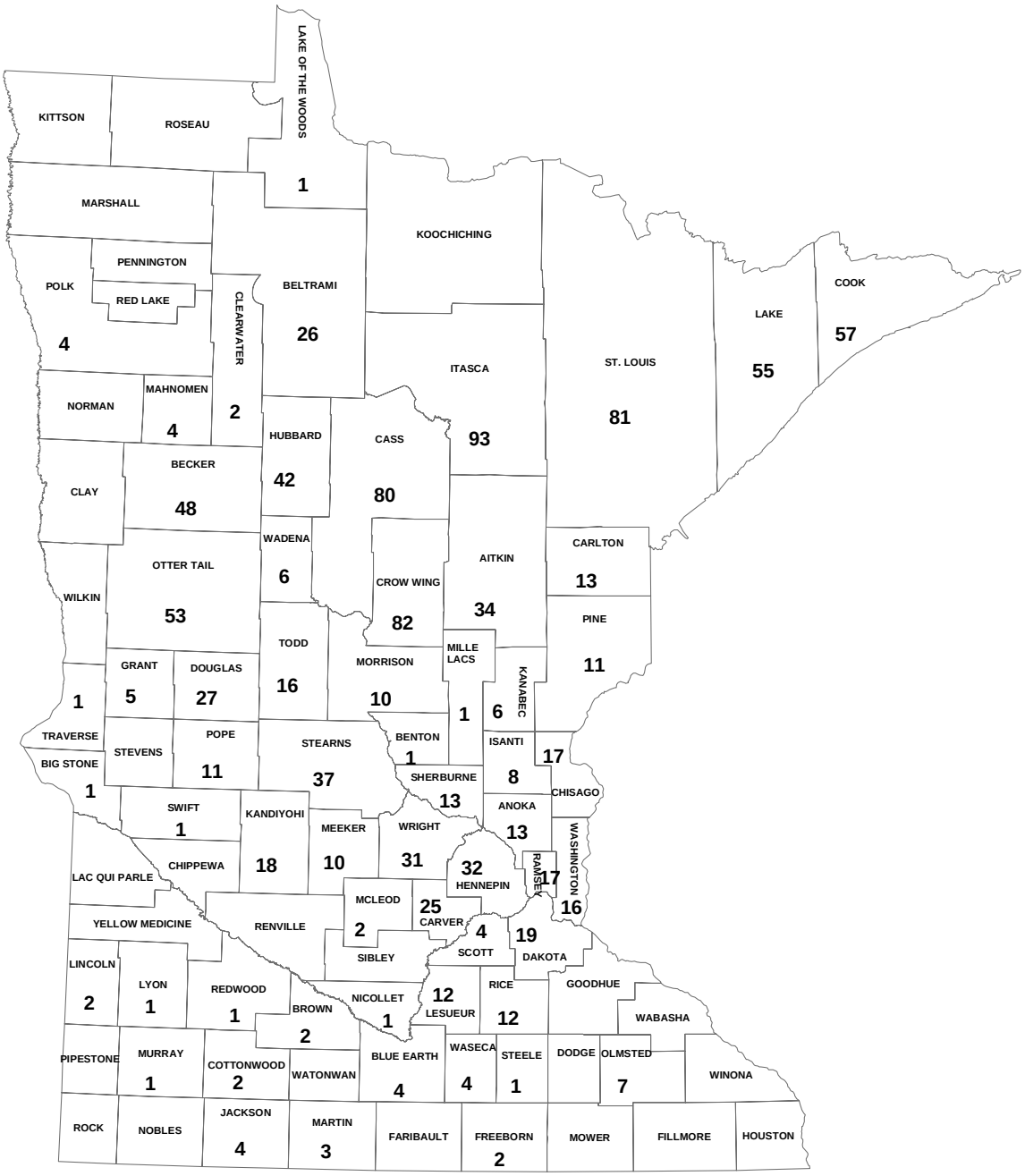


Figure 4. 2005 CLMP Lakes Summer-Mean Transparency

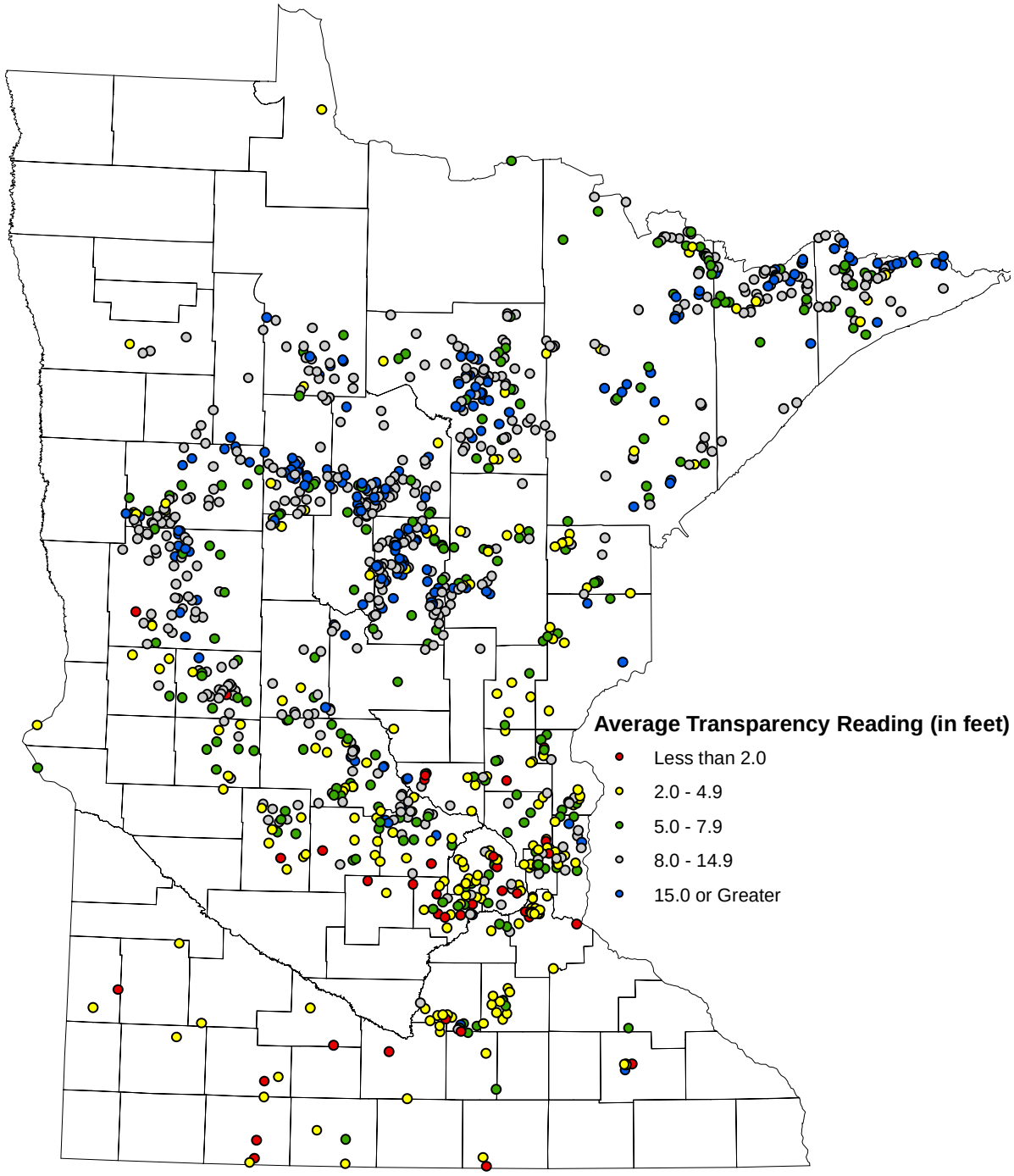
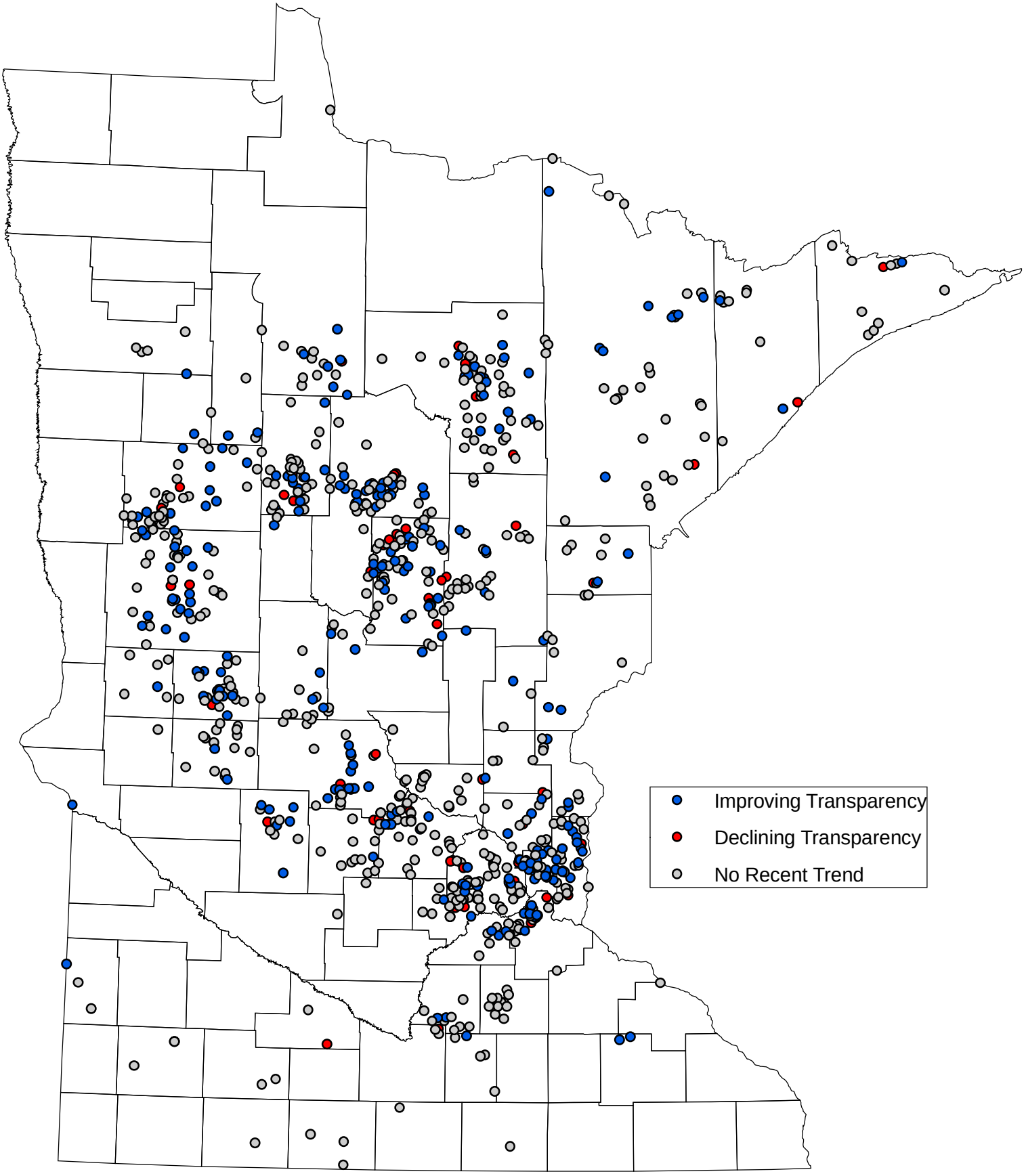


Figure 5. 2005 Transparency Trends in Minnesota



CLMP Plus Program: Updates for 2005

CLMP+ takes volunteer monitoring one step further. In the advanced program, volunteers collect water chemistry and temperature data in addition to collecting transparency data.

During the summer of 2005, sixteen lakes were sampled by CLMP volunteers as a part of the CLMP+ program. The lakes were located in Douglas, Hubbard, Kandiyohi, Wadena, and Wright Counties. These lakes were selected for a variety of reasons: they were a priority within the county, lacked data beyond Secchi data, or were candidates for a MODIS remote sensing project. The combination of water chemistry and Secchi data provides a good baseline for assessing water quality in these lakes.

Lakes included in the study were:

- **Douglas County**: Mary (21-0092), Latoka (21-0106), Lobster (21-0144),
- **Hubbard County**: Duck (29-0142), Upper Twin (29-0157),
- **Kandiyohi County**: Diamond (34-0044), Long (34-0066), Big Kandiyohi (34-0086), Wakanda (34-0169),
- **Wadena County**: Jim Cook (80-0027), Lower Twin (80-0030), Blueberry (80-0034), [2]Stocking (80-0037), Morgan (80-0038), [2]Spirit (80-0039), and
- **Wright County**: Howard (86-0199), Bass (86-0234), and Pleasant (80-0251).

All equipment and analytical costs for the samples were provided for and paid by the Minnesota Pollution Control Agency (MPCA). Volunteers on these lakes collected water chemistry samples and temperature profiles one to two times per month. After sampling, the volunteers dropped off their samples at a predetermined location within their county. Jerry Haggenmiller and Kory Kosek of the Douglas SWCD, Forrest Peterson and Sheri Reuss, of the Willmar MPCA Regional Office, Kari Tomperi, of the Wadena SWCD, and Joe Jacobs, of the Wright SWCD, helped plan and coordinate the sample drop-off/pick up schedule for the samples. Jennifer Klang and Pam Anderson, MPCA-St. Paul Office, helped plan, train volunteers, and monitor lake participating in the 2005 program. Special thanks to the volunteers who helped make this project a success: Gary Bahn (Mary), Rich and Marlene Braun (Latoka), Pete Onstad (Lobster), Jon Gilmer (Diamond), Larry Zink (Long), Tim Furr (Big Kandiyohi), Marilee F. Druskin (Wakanda), Dewayne Mead (Duck), Don Broughton (Upper and Lower Twin), Lefty Lindblom (Blueberry, Jim-Cook, Morgan, and Spirit), Mark Hepokoski (Stocking), Curt Forst (Howard), Dan Ross (Bass), and Tab Ashwill (Pleasant). MPCA staff collected quality assurance and quality control (QA/QC) samples for each lake. County (Hubbard/Wadena and Kandiyohi) or individual (Bass, Latoka, Lobster, Mary, Pleasant, and Howard) lake reports were developed and will soon be available through the MPCA or through the MPCA web site: www.pca.state.mn.us/water/clmp-publications.html.

[2] Stocking and Spirit Lakes were analyzed as part of the Hubbard and Wadena Counties CLMP+ report. Water quality samples were collected independently by the Stocking and Spirit Lake Associations and the City of Menahga and not as part of the CLMP+ or MPCA monitoring.

Blueberry Lake Trophic Status Example

The following is an excerpt from the 2005 CLMP Plus Report for Hubbard and Wadena Counties. This example, using water quality data from Blueberry Lake, shows how the Secchi depth compares to chlorophyll-*a* and total phosphorus in terms of Trophic State Index. By verifying this relationship, we can continue to use the Secchi depth as a reliable indicator of the nutrients and algal productivity in the lake. Equations used in these calculations can be found on pages 6 and 7.

BLUEBERRY (80-0034)

Blueberry Lake is a large, shallow lake (522 acres) with a maximum depth of 15 feet (4.6 m) and estimated mean depth of 6 feet (1.8 m). It is in the upper five percent of Minnesota lakes in terms of its size, and the largest lake in Wadena County. The lake is located two miles north of Menahga, Minnesota. The lake is shallow, with 100% of the lake area being littoral and there is one public access for the lake. Blueberry Lake's direct (immediate drainage) is small relative to its total (all contributing) watershed area, 2.83 mi^2 and 212.2 mi^2, respectively. The total watershed to lake ratio is quite large at 263:1 (Table 2). Its water residence time is on the order of 20 days.

Water quality data was collected in June, July, August, and September, 2005 by volunteer lake monitor Lefty Lindblom. One site was used on Blueberry Lake: Site 101(201) – located in the center of the lake (Figure 6).

Figure 6. Blueberry Lake Bathymetric Map and Monitoring Location

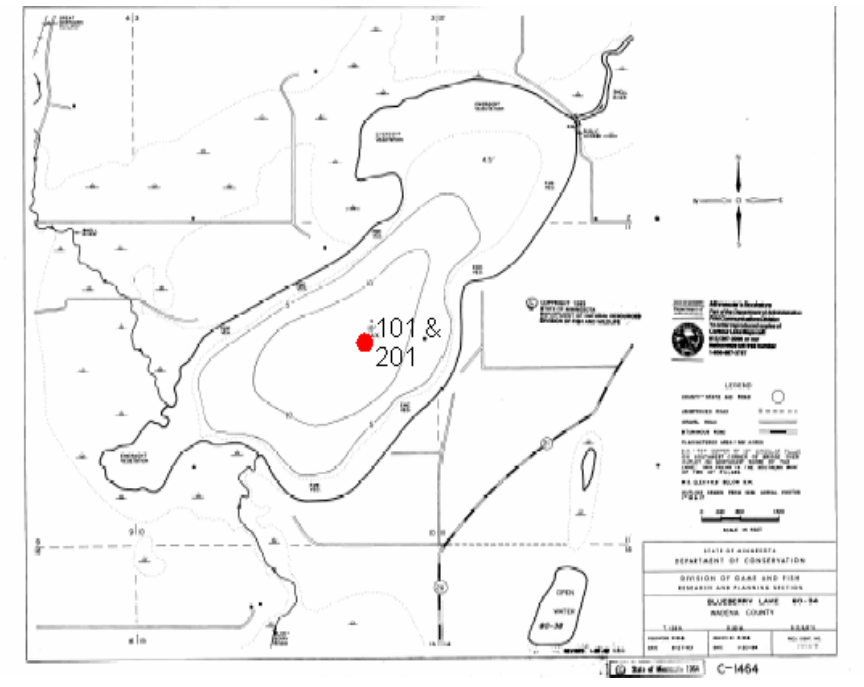


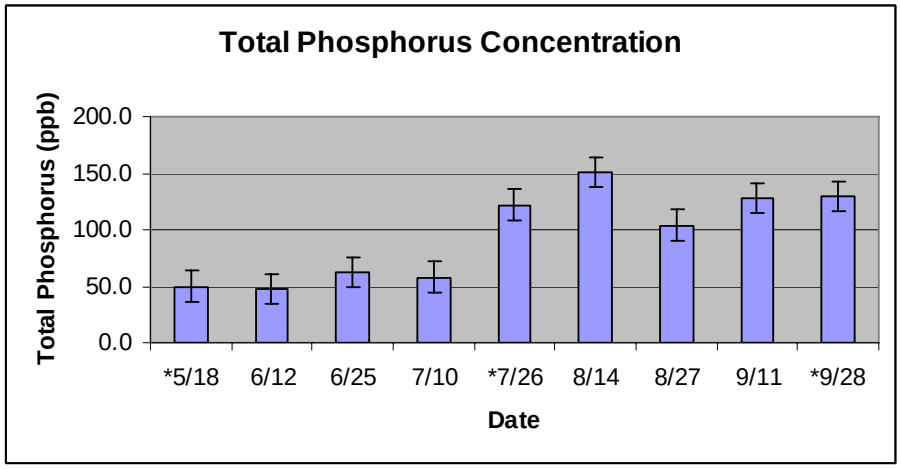
Table 2. Summary-Mean Water Quality Parameters for Blueberry Lake.
(Based on 2005 Epilimnetic Data Collected by Volunteers and MPCA Staff)

Parameter	Blueberry Lake	Typical Range for NLF[1] Ecoregion	Typical Range for NCHF[1] Ecoregion
TP (µg/L)	100	14 – 27	23 – 50
Chl-a (µg/L)[2]	43.3	< 10	5 – 22
Secchi (m)	0.7	2.4 – 4.6	1.5 – 3.2
Secchi (ft)	2.5	8 – 15	4.9 – 10.5

[1]Typical range is the 25th – 75th percentile of summer means from reference lakes specific to an ecoregion.
[2]Chlorophyll-*a* measurements have been corrected for pheophytin.

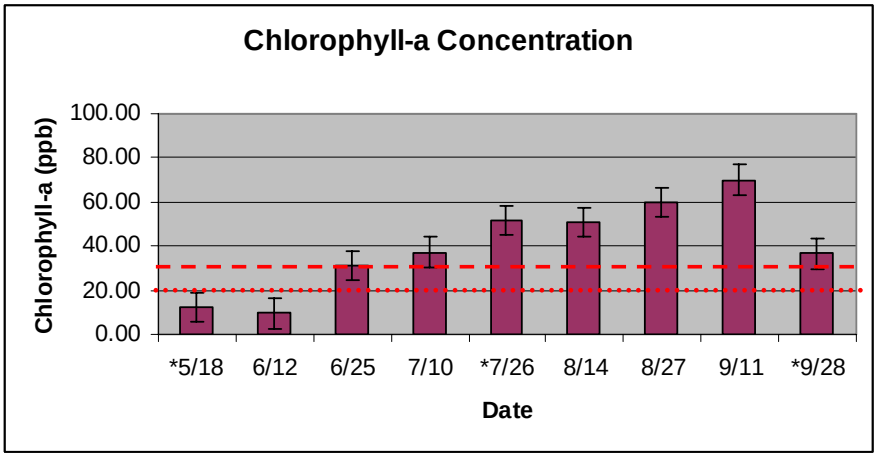
Total phosphorus (TP) concentrations averaged 100 µg/L (micrograms per liter or parts per billion) in Blueberry Lake during the summer of 2005. This value is quite high, compared to the concentrations for reference lakes in the NCHF ecoregion (Table 1). TP concentrations ranged from 48 – 151 µg/L and tended to increase over the summer (Figure 7). This tendency for increasing TP over the summer is consistent with what has been observed in other shallow lakes in MN (Heiskary and Lindon, 2005). The significant increase in TP from the July 10th to July 26th sampling dates could be attributed to two possible sources; a die off in curly leaf pondweed which would result in an increase in available TP or as a result of the large rainfall measured on July 12th.

Figure 7. Blueberry Lake Total Phosphorus Results for 2005



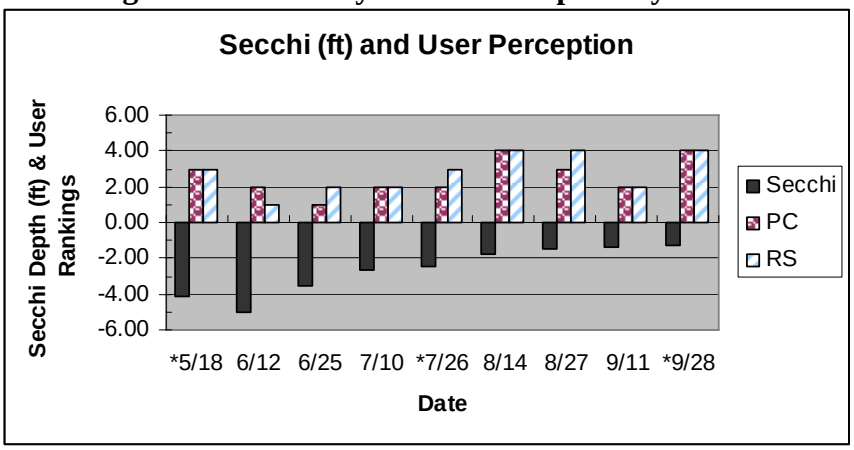
Chlorophyll-*a* concentrations for Blueberry Lake averaged 43 µg/L and were well above the NCHF ecoregion range (Table 1). Concentrations on Blueberry Lake ranged from 9.5 – 70 µg/L (Figure 8). The increase in chlorophyll-*a* concentrations mirrored the increase in TP concentrations. Chlorophyll-*a* concentrations above 20 µg/L indicate a nuisance algae bloom and concentrations above 30 µg/L indicate a severe nuisance algae bloom. All samples collected after June 12th would be considered severe nuisance blooms.

Figure 8. Blueberry Lake Chlorophyll-*a* Results for 2005



Secchi disk transparency on Blueberry Lake ranged from 1.3 feet (0.4 meters) in late September to 5 feet (1.5 meters) in early June (Figure 9) and averaged 2.5 feet (0.7 meters). These transparency measures are well below the typical range for NCHF ecoregion reference lakes (Table 1). Along with transparency measurements, subjective measures of Blueberry Lake's "physical appearance" and "recreational suitability" were made. Lake conditions varied, and characterizations ranged from "crystal clear" (Class 1) and "beautiful" (Class 1) to "high algae levels" (Class 4) and "enjoyment of lake is substantially reduced" (Class 4) during the summer for Blueberry Lake.

Figure 9. Blueberry Secchi Transparency for 2005



Trophic State Index (TSI) values for Blueberry Lake compare very favorably to each other (Table 2, Figure 9); indicating *hypereutrophic* conditions. As such, Secchi transparency should continue to be a good estimator for TP and chlorophyll-*a* values as well as an indicator of overall water quality for Blueberry Lake.

Table 3. Trophic Status Indicators for Blueberry Lake.

TSI Parameter	Big Pine Lake TSI Value
TSIP	**71**
TSIC	**68**
TSIS	**65**
Overall TSI	**68**

Figure 10. Carlson's Trophic State Index, based on a scale of 0 – 100. (Carlson 1977)

TSI < 30 Classical Oligotrophy: Clear water, oxygen throughout the year in the hypolimnion, salmonid fisheries in deep lakes.

TSI 30 - 40 Deeper lakes still exhibit classical oligotrophy, but some shallower lakes will become anoxic in the hypolimnion during the summer.

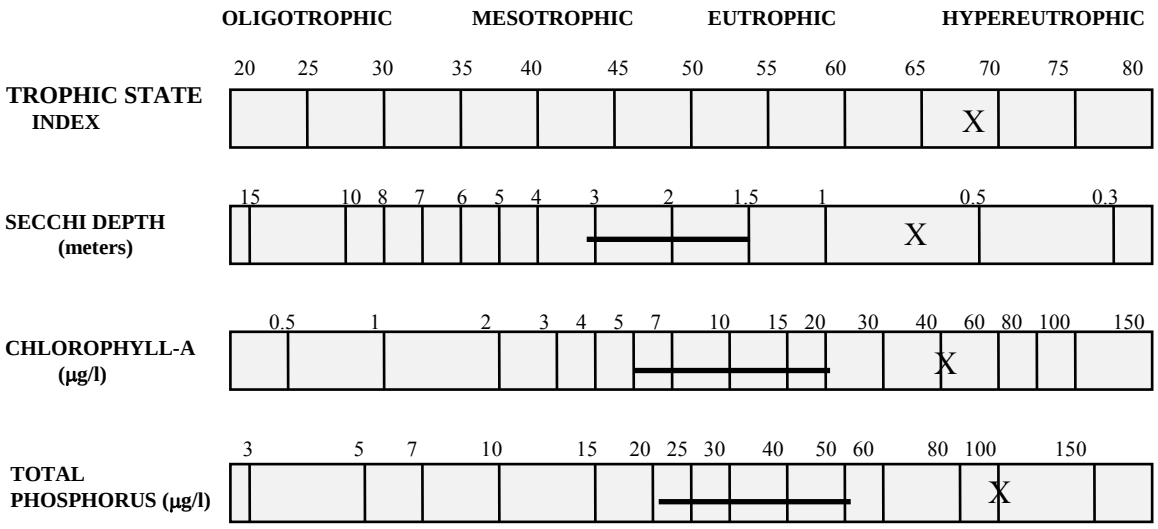
TSI 40 - 50 Water moderately clear, but increasing probability of anoxia in hypolimnion during summer.

TSI 50 - 60 Lower boundary of classical eutrophy: Decreased transparency, anoxic hypolimnia during the summer, macrophyte problems evident, and warm-water fisheries only.

TSI 60 - 70 Dominance of blue-green algae, algal scums probable, extensive macrophyte problems.

TSI 70 - 80 Heavy algal blooms possible throughout the summer, dense macrophyte beds, but extent limited by light penetration. Often would be classified as hypereutrophic.

TSI > 80 Algal scums, summer fish kills, few macrophytes, dominance of rough fish.



After Moore, L. and K. Thornton, [Ed.]1988. Lake and Reservoir Restoration Guidance Manual. USEPA>EPA 440/5-88-002.

NCHF Ecoregion Range, 25th – 75th percentile: ——— Blueberry Lake: X

Note: A blank copy of this TSI form is in Appendix II for you to use with calculations from your own lake.

Glossary

Alkalinity: Capacity of a lake to neutralize acid.

Chloride: Common anionic form of chlorine which carries one net negative charge. A common anion in many waters.

Chlorophyll-*a*: The main pigment in algae. It is used to measure aquatic productivity.

Ecoregion: Areas of relative homogeneity based on land use, soils, topography and potential natural vegetation.

Epilimnion: Most lakes form three distinct layers of water during summertime weather. The epilimnion is the upper layer and is characterized by warmer and lighter water.

Eutrophic: Describes a lake of high photosynthetic productivity. Nutrient rich.

Hypolimnion: The bottom layer of lake water during the summer months. The water in the hypolimnion is denser and much colder than the water in the upper two layers.

Littoral Area: The shallow areas around a lake's shoreline, dominated by aquatic plants.

Mesotrophic: Describes a lake of moderate photosynthetic productivity.

Metalimnion: The middle layer of lake water during the summer months.

Nitrite/Nitrate Nitrogen: The weight of concentration of the nitrogen in the nitrate ion.

Oligotrophic: Describes a lake of low photosynthetic productivity.

Phosphate: An essential nutrient containing phosphorus and oxygen. Phosphate is often a critical nutrient in lake eutrophication management.

Phosphorus: Phosphorus is an element that can be found in commercial products such as foods, detergents, and fertilizers as well as in larger amounts naturally in organic materials, soils, and rocks. Phosphorus is one of many essential plant nutrients. Phosphorus forms are continually recycling throughout the aquatic environment. All forms are measured under the term "Total Phosphorus" in parts per billion (ppb).

Photosynthesis: The process by which green plants produce oxygen from sunlight, water and carbon dioxide.

Secchi Disk: A metal plate used for measuring the depth of light penetration in water.

Suspended Solids: Small particles that hang in the water column and create turbid or cloudy conditions.

Thermocline: During summertime, the middle layer of lake water. Lying below the epilimnion, this water rapidly loses warmth. Zone of maximum change in temperature over the depth interval.

Trophic Status: The level of growth or productivity of a lake as measured by phosphorus content, algae abundance, and depth of light penetration.

Turnover (Overturn): Warming or cooling surface waters, activated by wind action, mix with lower, deeper layers of water.

Watershed: Geographical area that supplies water to a stream, lake, or river.

Zooplankton: Microscopic animals.

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Appendix I. 2005 CLMP Data and Participants.

Aitkin County

LAKE ID	LAKE NAME	SITE	NS	MEAN	MIN	MAX	VOLUNTEERS
01-0157	BIG PINE	206	14	11.7	9.0	13.5	Osier, Dave & Christine
01-0062	BIG SANDY	202	4	4.9	4.0	5.5	Hanson, Ken
01-0062	BIG SANDY	203	9	4.2	3.0	5.0	Carlson, James R.
01-0062	BIG SANDY	208	12	4.5	4.0	5.5	Knoble, Carmen
01-0062	BIG SANDY	209	11	4.3	3.8	5.0	Knoble, Carmen
01-0062	BIG SANDY	212	9	4.2	3.0	5.0	Carlson, James R.
01-0062	BIG SANDY	213	9	3.6	3.0	4.0	Carlson, James R.
01-0062	BIG SANDY	215	4	4.6	4.0	5.5	Hanson, Ken
01-0062	BIG SANDY	217	12	3.7	3.0	4.0	Krezowski, Mark & Lori
01-0062	BIG SANDY	218	12	4.0	3.5	4.5	Krezowski, Mark & Lori
01-0062	BIG SANDY	219	12	3.3	2.5	5.0	Krezowski, Mark & Lori
01-0062	BIG SANDY	220	6	3.8	3.5	4.0	Touhey, Bernie
01-0062	BIG SANDY	221	6	3.9	3.5	4.0	Touhey, Bernie
01-0062	BIG SANDY	223	4	4.8	4.0	5.5	Hanson, Ken
01-0188	BLIND	201	5	5.3	5.0	6.0	Raudabough, Wallace
01-0209-01	CEDAR (MAIN BASIN)	201	9	9.6	7.0	11.5	Eberhardt, Tom
01-0209-01	CEDAR (MAIN BASIN)	203	9	8.8	7.0	11.0	Brown, Tom & Roberta
01-0209-01	CEDAR (MAIN BASIN)	204	9	9.4	7.5	11.5	Menth, Linda
01-0209-01	CEDAR (MAIN BASIN)	205	9	11.1	8.5	15.0	Menth, Linda
01-0209-01	CEDAR (MAIN BASIN)	206	6	9.4	9.0	9.5	Sauerbri, Walt
01-0209-01	CEDAR (MAIN BASIN)	207	9	9.7	9.0	10.0	Nelson, Ron
01-0209-01	CEDAR (MAIN BASIN)	208	6	8.9	7.5	12.5	Hauge, Paul
01-0209-03	CEDAR (WEST BAY)	201	15	6.8	6.5	7.0	Dragovich, Dale
01-0093	CLEAR	201	11	17.3	13.0	27.0	Messer, Ryan & Gary
01-0096	DAM	201	13	9.3	7.0	13.5	LaClair, John
01-0123	ELM ISLAND	201	16	2.3	1.5	4.0	Jorgensen, William H.
01-0147	ESQUAGAMAH	204	9	4.3	3.0	6.0	Miller, Kathryn & John
01-0147	ESQUAGAMAH	206	8	4.3	2.5	6.5	Heuer, James P.
01-0159	FARM ISLAND	204	13	13.0	6.5	23.5	Nardini, Gene
01-0159	FARM ISLAND	205	5	11.8	9.5	13.5	Hoppe, Russ
01-0159	FARM ISLAND	207	10	10.3	8.0	12.0	Butzer, Anne
01-0105	FLEMING	201	9	2.6	2.5	3.5	Fulton, Lawrence
01-0099	GUN	207	8	5.3	4.0	6.5	Danielson, Bruce
01-0170	HANGING KETTLE	202	7	6.1	4.0	9.0	Hakes, Dick
01-0022	ISLAND	201	9	6.1	6.0	6.5	Miller, Mark & Cindy
01-0176	LITTLE PINE	201	13	16.5	8.5	29.0	Kalb, James W.
01-0217	LITTLE TURTLE	201	6	9.5	8.0	10.5	Mazurs, Elmar & Matthew
01-0125	LONE	202.1	17	22.2	18.0	30.0	Baker, Jerry
01-0125	LONE	203	6	23.9	20.0	31.0	Mazurs, Elmar & Matthew
01-0089	LONG	200	5	10.0	8.0	12.5	Brotherton, Sid
01-0089	LONG	201	6	9.8	8.5	13.0	Glimsdal, Don & Janice
01-0089	LONG	203	12	9.8	8.5	12.5	Newmann, Gary
01-0033	MINNEWAWA	201	9	5.8	3.5	10.0	Bredow, Paul
01-0033	MINNEWAWA	202	9	4.9	3.0	7.0	Bredow, Paul
01-0117	NORD	201	10	7.2	5.0	8.5	Prickett, Gordon O.
01-0001	PINE	202	7	6.2	5.5	7.0	Benkusky, Anthony
01-0069	PORTAGE	202	3	5.0	4.5	5.5	Stefanski, Mary

Legend
LAKE ID: Lake Identification Number |XX|-|YYYY|-|ZZ| X-County Number, Y-Lake Number, Z-Bay Number
LAKE NAME: Name of Lake NS: Number of Readings MIN: Minimum Secchi Reading (ft)
SITE: Monitoring Location on Lake MEAN: Mean Secchi Transparency (ft) MAX: Maximum Secchi Reading (ft)

Aitkin County Continued

LAKE ID	LAKE NAME	SITE	NS	MEAN	MIN	MAX	VOLUNTEERS
01-0091	RABBIT	204	12	9.2	6.5	11.5	Mattson, Deanna & Calvin
01-0091	RABBIT	205	12	9.9	8.0	12.5	Mattson, Deanna & Calvin
01-0091	RABBIT	206	12	8.9	6.5	12.5	Mattson, Deanna & Calvin
01-0077	RAT	201	6	4.4	4.0	5.0	Holten, Carole
01-0146	RIPPLE (MUD)	201	4	5.1	3.8	7.0	Green, Evan
01-0146	RIPPLE (MUD)	202	4	4.8	4.0	6.5	Green, Evan
01-0023	ROUND	201	9	14.6	9.0	18.0	Williams, Joyce
01-0137	ROUND	201	8	14.9	12.0	18.0	Christianson, Jim
01-0204	ROUND	204	16	9.5	8.5	12.0	Williams, Robert
01-0178	SPIRIT	201	6	15.8	10.0	22.0	Mazurs, Elmar & Matthew
01-0178	SPIRIT	202	9	11.2	8.0	14.5	Hakes, Ken
01-0087	SUGAR	201	12	15.5	11.0	23.0	Newton, Dan & Fran
01-0083	TOWNLINE	201	2	8.3	8.0	8.5	Katzmarek, Gloria
01-0207	TOWNLINE	201	12	14.5	12.0	17.0	Kemske, Jon & Ann
01-0058	VANDUSE	201	8	11.4	10.0	13.5	Lund, Michael
01-0102	WILKINS	201	9	15.7	15.0	16.5	Reese, Richard A.

Anoka County

LAKE ID	LAKE NAME	SITE	NS	MEAN	MIN	MAX	VOLUNTEERS
02-0014	AMELIA	201	3	4.3	4.0	4.5	Hawkins, Amy Donlin & Art
02-0006	CENTERVILLE	202	4	1.8	1.0	2.5	Mottl, Greg
02-0042	COON	203	6	4.3	2.5	6.5	Johnson, Goldie M.
02-0042	COON	204	5	5.2	3.0	8.0	Mercil, Arlan
02-0042	COON	205	6	8.0	4.5	12.0	Tierney, Douglas
02-0042	COON	207	6	5.8	5.5	6.0	Rasmussen, Dave
02-0042	COON	208	6	4.5	3.0	6.5	Johnson, Goldie M.
02-0084	CROOKED	205	9	6.8	4.8	9.5	McCann, James
02-0035	FAWN	201	7	13.0	11.0	15.0	Arboe, Jim
02-0091	GEORGE	207	1	10.0	10.0	10.0	Hall, Doug
02-0045	GOLDEN	202	9	3.1	2.0	6.5	Peterson, Eric
02-0053	HAM	201	8	6.3	5.0	9.5	Arndt, Roger & Jane
02-0026	LINWOOD	204	7	3.9	3.0	5.5	Nelson, Steven J.
02-0034	MARTIN	202	14	3.3	2.5	5.5	Docken, Tom & Nancy
02-0003	OTTER	203	4	11.1	11.0	11.5	Mottl, Greg
02-0003	OTTER	203	3	10.7	9.5	11.5	Berg, Jim
02-0004	PELTIER	203	9	3.0	1.5	10.0	LeBlanc, Wayne
02-0102	SANDSHORE	201	3	5.8	4.5	7.5	Smith, James

Becker County

LAKE ID	LAKE NAME	SITE	NS	MEAN	MIN	MAX	VOLUNTEERS
03-0366	ABBEY	201	8	2.3	1.5	3.0	PRWD, Dick Hecock
03-0085	BAD MEDICINE	201	15	20.5	15.0	27.0	Stadem, Dr. Paul D.
03-0085	BAD MEDICINE	207	15	20.0	14.0	28.0	Strohmeier, Ed
03-0085	BAD MEDICINE	210	15	21.3	15.0	27.0	Vlasak, Ray
03-0085	BAD MEDICINE	211	15	20.1	14.0	28.0	Strohmeier, Ed
03-0088	BASS	201	4	9.8	6.8	12.8	Ritzschke, Richard
03-0096	BIG BASSWOOD	201	2	8.0	7.5	8.5	Wattenhofer, John
03-0576	BIG CORMORANT	205	10	16.6	8.0	27.0	Hill, Eloyes
03-0304	BIG SUGAR BUSH	202	7	21.7	16.0	25.6	Drenkow, Fred
03-0304	BIG SUGAR BUSH	207	7	20.0	13.0	24.0	Drenkow, Fred

Legend

LAKE ID: Lake Identification Number |XX|-|YYYY|-|ZZ| X-County Number, Y-Lake Number, Z-Bay Number
LAKE NAME: Name of Lake NS: Number of Readings MIN: Minimum Secchi Reading (ft)
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Becker County Continued

LAKE ID	LAKE NAME	SITE	NS	MEAN	MIN	MAX	VOLUNTEERS
03-0030	BOOT	203	6	23.5	18.0	29.0	Stecker, Roger
03-0400	BRANDY	201	8	2.8	2.0	3.0	PRWD, Dick Hecock
03-0286	COTTON	202	5	11.3	8.5	14.5	Barbari, Dick
03-0286	COTTON	203	12	9.0	6.0	13.0	Peterka, John
03-0381	DETROIT	205	14	11.0	7.0	19.0	PRWD, Dick Hecock
03-0381	DETROIT	207	14	11.2	8.0	14.5	PRWD, Dick Hecock
03-0503	EUNICE	201	5	11.5	9.0	17.0	Magnuson, Ken
03-0387-02	FLOYD (MAIN BASIN)	206	13	11.5	6.5	22.0	Geihl, Mark
03-0387-02	FLOYD (MAIN BASIN)	206	8	12.8	8.0	21.0	PRWD, Dick Hecock
03-0387-01	FLOYD (MUD)	207	12	5.8	3.5	10.5	Geihl, Mark
03-0387-01	FLOYD (MUD)	207	8	6.6	4.5	12.0	PRWD, Dick Hecock
03-0358	FOX	201	8	11.1	7.0	14.0	PRWD, Dick Hecock
03-0582	IDA	201	4	8.3	8.0	8.5	Askelson, Curtis
03-0153	ISLAND	202	15	13.1	7.0	27.0	Aschbacher, Peter
03-0136	JUGGLER	201	1	17.5	17.5	17.5	Scott, Sue
03-0136	JUGGLER	202	8	20.6	18.0	22.0	Rofidal, Chris
03-0136	JUGGLER	203	8	25.9	21.0	31.0	Zweerink, Jim
03-0596	LARSON	201	12	4.1	2.0	10.0	Olson, Duane
03-0619	LEE (TALAC)	201	4	6.3	2.0	11.5	Paakh, Bruce
03-0506	LITTLE CORMORANT	202	12	6.4	4.0	11.5	Renslow, James
03-0506	LITTLE CORMORANT	203	12	6.3	4.0	11.0	Renslow, James
03-0506	LITTLE CORMORANT	204	12	5.1	3.0	10.5	Renslow, James
03-0506	LITTLE CORMORANT	205	12	6.3	4.0	11.5	Renslow, James
03-0506	LITTLE CORMORANT	206	12	6.7	4.0	12.0	Renslow, James
03-0386	LITTLE FLOYD	203	8	8.2	5.0	11.5	PRWD, Dick Hecock
03-0189	LITTLE TOAD	201	12	10.6	3.5	21.0	Kercher, Edsel Jay
03-0189	LITTLE TOAD	201	10	8.3	4.0	12.0	Purdy, Bill
03-0383	LONG	201	4	12.5	11.0	13.5	Berg, Dan & Sheri
03-0383	LONG	201	8	12.8	8.5	16.0	PRWD, Dick Hecock
03-0383	LONG	202	15	12.4	8.5	15.0	Fihn, Shirley
03-0500	MAUD	204	11	12.0	9.5	20.5	Sherlin & Julie Scothorn, Bill
03-0371	MEADOW	201	8	12.5	10.0	16.5	PRWD, Dick Hecock
03-0475	MELISSA	201	21	8.1	5.0	16.0	PRWD, Dick Hecock
03-0602	MIDDLE CORMORANT	201	12	10.3	9.0	12.5	Taylor, Robert L.
03-0602	MIDDLE CORMORANT	202	13	10.4	9.5	12.5	Taylor, Robert L.
03-0357	MONSON	201	16	10.9	6.5	15.0	PRWD, Dick Hecock
03-0360	MUSKRAT	201	8	9.3	5.5	14.0	PRWD, Dick Hecock
03-0595	NELSON	201	13	6.7	5.0	11.0	Olson, Duane
03-0180	NORTH TWIN	202	2	10.0	8.0	12.0	Durben, Paul
03-0486	PEARL	201	11	11.4	5.5	18.0	Malchow, Henrietta
03-0486	PEARL	201	7	12.0	5.5	20.0	PRWD, Dick Hecock
03-0287	PICKERAL	202	16	13.9	8.5	20.0	PRWD, Dick Hecock
03-0374-02	REEVES	201	7	12.9	10.0	18.5	PRWD, Dick Hecock
03-0293	ROCK	202	4	5.4	4.0	7.0	Blanding, Donald
03-0587	ROSSMAN	201	15	4.5	3.5	7.5	Leek, Mel
03-0155	ROUND	202	14	11.6	10.5	15.0	Bergquist, Ruth
03-0359	SALLIE	201	16	7.7	3.0	16.0	PRWD, Dick Hecock
03-0102	SHELL	201	1	6.0	6.0	6.0	Cirksena, Randy
03-0382	ST. CLAIR	201	7	3.3	2.0	5.5	PRWD, Dick Hecock

Legend

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Becker County Continued

LAKE ID	LAKE NAME	SITE	NS	MEAN	MIN	MAX	VOLUNTEERS
03-0382	ST. CLAIR	202	7	3.3	1.5	6.0	PRWD, Dick Hecock
03-0010	STRAIGHT	201	15	7.7	5.0	15.5	Olson, Gordon
03-0010	STRAIGHT	202	16	8.0	5.0	16.0	Olson, Gordon
03-0010	STRAIGHT	203	16	8.0	5.0	15.5	Olson, Gordon
03-0323	STRAWBERRY	201	10	17.1	10.0	24.0	Maher Jr., George G.
03-0107	TOAD	203	17	11.1	5.0	24.5	Koel, Marvin
03-0107	TOAD	204	17	10.6	5.0	21.0	Koel, Marvin
03-0657	TURTLE	202	19	20.6	16.0	25.0	Link, Robert
03-0657	TURTLE	203	19	20.4	16.0	25.0	Link, Robert
03-0017	TWO INLETS	202	9	7.2	6.0	12.0	Higgins, Thomas
03-0588	UPPER CORMORANT	201	3	10.7	5.5	19.0	Bjerke, Bruce
03-0588	UPPER CORMORANT	202	12	7.6	5.0	13.0	Foldesi, John
03-0588	UPPER CORMORANT	203	12	6.7	5.0	12.0	Friedrich, Jan
03-0328	WHITE EARTH	203	15	14.1	7.0	20.0	Christensen, Ronald
03-0328	WHITE EARTH	209	15	13.6	7.5	20.0	Christensen, Ronald

Beltrami County

LAKE ID	LAKE NAME	SITE	NS	MEAN	MIN	MAX	VOLUNTEERS
04-0329	BALM (TURTLE)	201	9	12.3	8.0	16.0	Frame, Nathan
04-0135	BELTRAMI (GNAT)	202	9	13.4	9.5	17.5	Maxson, George-Ann
04-0135	BELTRAMI (GNAT)	203	14	12.4	8.5	16.5	Vanek, Jerome
04-0135	BELTRAMI (GNAT)	204	14	12.8	9.5	17.0	Vanek, Jerome
04-0130	BEMIDJI	201	13	8.2	3.5	14.0	Roholt, Ina T.
04-0049	BIG	203	11	11.4	8.0	14.5	Ockenga, Earl
04-0132-02	BIG BASS (EAST PORTION)	202	4	12.5	11.0	14.0	Porter, Ron
04-0069	BLACKDUCK	203	6	6.4	4.0	14.0	Gilmore, Tom
04-0069	BLACKDUCK	204	8	7.6	3.0	18.5	Bechtold, Steve
04-0030	CASS	208	1	9.5	9.5	9.5	Murray, John
04-0030	CASS	208	13	12.4	7.5	18.0	Reed, Donald J.
04-0030	CASS	209	1	8.5	8.5	8.5	Murray, John
04-0030	CASS	209	8	18.2	17.3	18.8	Beaver, Larry
04-0030	CASS	210	12	9.2	6.3	13.5	Murray, John
04-0343	CLEARWATER	204	9	8.4	6.5	10.0	Widerski, Robert J.
04-0167	DARK	201	5	11.5	10.0	13.5	Coe, Leland G.
04-0230	DEER	202	5	11.5	8.0	16.0	Drusch, Donald A.
04-0162	FOX	201	10	15.3	13.0	18.0	Ducharme, Judy
04-0120	GULL	202	2	9.3	9.0	9.5	Houseman, Don
04-0140	IRVING	202	10	4.1	2.0	7.5	Schmeckpeper, Don
04-0140	IRVING	203	10	5.1	2.5	7.5	Lorence, Joe
04-0166	JULIA	201	4	10.5	5.5	22.0	Purcell, Pat & Bob
04-0007	KITCHI	201	2	9.8	9.5	10.0	Braaten, Laverne
04-0110	LITTLE BASS	201	13	17.9	15.0	22.0	DeWenter, James H.
04-0155	LITTLE TURTLE	201	17	6.1	4.0	12.5	Davenport, Brad
04-0076	LONG	201	17	19.5	18.0	22.0	Beck, William R.
04-0142	MARQUETTE	202	3	9.0	8.0	10.5	Stearns, Rex
04-0063	NORTH TWIN	201	6	17.6	14.0	25.0	Champlin, Charles
04-0053	SOUTH TWIN	201	5	17.8	15.0	20.5	Champlin, Charles
04-0130-01	STUMP	201	3	8.2	5.0	11.5	Fenson, Roxanne
04-0322	SYLVIA (SAND)	201	8	22.6	20.0	25.0	Richardson, Mark & Kathy

Legend

LAKE ID: Lake Identification Number |XX|-|YYYY|-|ZZ| X-County Number, Y-Lake Number, Z-Bay Number
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Beltrami County Continued

LAKE ID	LAKE NAME	SITE	NS	MEAN	MIN	MAX	VOLUNTEERS
04-0159	TURTLE (BIG TURTLE)	204	17	10.8	6.5	17.0	Lynne, Vic & Betty
04-0111	TURTLE RIVER	201	12	10.9	9.0	13.0	Mitchell, George
04-0111	TURTLE RIVER	202	12	8.4	6.0	11.5	Wickstrom, Evert B.
04-0079	WOLF	204	7	10.6	6.3	14.0	Bachmeier, Pete

Benton County

LAKE ID	LAKE NAME	SITE	NS	MEAN	MIN	MAX	VOLUNTEERS
05-0013	LITTLE ROCK	210	3	2.2	2.0	2.5	Schindele, Jim

Big Stone County

LAKE ID	LAKE NAME	SITE	NS	MEAN	MIN	MAX	VOLUNTEERS
06-0152	BIG STONE	217	14	5.8	2.5	15.5	Jordahl, Jan
06-0152	BIG STONE	218	3	5.8	4.5	8.0	Golden, Marcia

Blue Earth County

LAKE ID	LAKE NAME	SITE	NS	MEAN	MIN	MAX	VOLUNTEERS
07-0053	DUCK	203	12	3.1	1.5	6.5	Dahl, Donald A.
07-0096	LOON	201	14	1.0	0.5	1.5	Draper, Charles
07-0079	LURA	201	10	4.0	1.5	7.5	Kunard, Marlin
07-0079	LURA	202	9	3.3	1.5	6.0	Kunard, Marlin
07-0044	MADISON	202	10	2.7	2.3	4.8	Allen, Kevin & Jared

Brown County

LAKE ID	LAKE NAME	SITE	NS	MEAN	MIN	MAX	VOLUNTEERS
08-0026	HANSKA	201	7	1.9	1.5	2.5	Brekke, Loren
08-0026	HANSKA	206	3	1.5	1.3	2.0	Sturm, Jean
08-0026	HANSKA	207	4	1.6	1.5	2.0	Helling, Gerald
08-0045	SLEEPY EYE	202	13	3.1	1.5	7.0	Schotzko, Edward J.
09-0032	BIG	202	3	12.7	12.5	13.0	Nynas, Carlie
09-0062	CROSS	201	4	3.3	3.0	3.5	Oman, Donald
09-0057	EAGLE	202	11	7.5	3.5	10.0	Fischer, Gary L.
09-0039	EDDY	201	10	5.9	5.5	6.5	Wentkiewicz, Sandy
09-0064	FLOWER	201	2	3.8	3.5	4.0	Dahl, Darrin
09-0038	HANGING HORN	200	6	7.9	6.0	10.0	Solheim, Harry
09-0038	HANGING HORN	204	6	7.5	6.0	10.0	Sandberg, Betty
09-0060-02	ISLAND (SOUTH BAY)	200	11	4.9	4.1	5.8	Bridge, Greg
09-0060-02	ISLAND (SOUTH BAY)	201	6	8.3	4.5	13.5	Freiermuth, Bill
09-0035	LITTLE HANGING HORN	201	10	13.0	10.0	16.5	Kelly, Dorothy J. & Robert
09-0035	LITTLE HANGING HORN	202	10	12.1	10.0	16.0	Kelly, Dorothy J. & Robert
09-0066	LONG	201	8	4.1	3.5	5.0	Walli, Sulo
09-0041	MOOSEHEAD	201	3	3.5	3.0	4.5	Hedberg, Leon & Kathi
09-0041	MOOSEHEAD	202	3	3.5	3.0	4.5	Hedberg, Leon & Kathi
09-0029	PARK	203	4	10.3	7.0	14.0	Davis, Duane H.
09-0067	TAMARACK	201	14	4.8	4.5	5.0	Gurske, Ray
09-0063	WOODBURY	201	9	5.8	5.5	6.0	Butcher, Kelly

Carver County

LAKE ID	LAKE NAME	SITE	NS	MEAN	MIN	MAX	VOLUNTEERS
10-0019	BAVARIA	202	11	5.0	3.5	6.5	Environmental Services, Carver County
10-0069	BENTON	201	9	0.8	0.5	1.5	Environmental Services, Carver County
10-0225	BRICKYARD	201	9	16.3	8.0	22.5	Environmental Services, Carver County
10-0084	BURANDT	201	14	5.0	2.0	12.0	Environmental Services, Carver County
10-0127	CAMPBELL	201	9	0.8	0.5	1.5	Environmental Services, Carver County
10-0005	COURTHOUSE	201	9	16.4	12.0	23.5	Environmental Services, Carver County
10-0121	EAGLE	201	9	3.4	1.0	9.0	Environmental Services, Carver County
10-0226	FIREMANS	201	9	10.3	7.0	14.0	Environmental Services, Carver County
10-0031	GAYSTOCK	201	9	0.7	0.5	1.5	Environmental Services, Carver County
10-0089	GOOSE	203	9	1.2	0.5	1.5	Environmental Services, Carver County
10-0014	HAZELTINE	201	8	1.1	0.5	2.5	Environmental Services, Carver County
10-0014	HAZELTINE	202	11	1.7	0.5	3.0	Lynch, Patrick
10-0088	HYDES	201	9	5.9	1.5	10.0	Environmental Services, Carver County
10-0006	LOTUS	202	5	4.2	2.0	6.2	Strohmaier, Shelley
10-0007	LUCY	201	10	2.8	1.5	6.0	Carlson, Dale E.
10-0058	MARIA	201	9	2.1	0.5	4.5	Environmental Services, Carver County
10-0029	MILLER	201	9	2.4	1.5	5.5	Environmental Services, Carver County
10-0009	MINNEWASHTA	204	6	13.7	9.5	17.0	Kohman, Roger R.
10-0009	MINNEWASHTA	205	1	12.5	12.5	12.5	Coldwell, Bill
10-0093	OAK	201	9	3.3	1.0	10.0	Environmental Services, Carver County
10-0093	OAK	202	12	3.8	1.5	8.0	Sadler, Terry
10-0053	PIERSON	201	6	7.1	5.5	9.5	Pierson, John
10-0095	SWEDE	201	11	3.5	1.5	10.0	Lemke, Mark
10-0095	SWEDE	202	8	2.2	0.5	5.0	Environmental Services, Carver County
10-0015	VIRGINIA	201	8	3.4	1.5	7.5	Renay, Leone
10-0059	WACONIA	201	7	10.8	4.0	23.0	Environmental Services, Carver County
10-0059	WACONIA	207	3	6.3	5.5	7.5	Hayes, Trish
10-0048	WASSERMANN	201	13	2.3	1.5	3.0	Rud, Stan
10-0066	WINKLER	201	8	1.9	1.0	3.5	Environmental Services, Carver County

Cass County

LAKE ID	LAKE NAME	SITE	NS	MEAN	MIN	MAX	VOLUNTEERS
11-0250	ADA	203	17	12.6	9.0	16.0	Ostroot, Roger & Karen
11-0250	ADA	205	17	13.3	11.0	15.0	Ostroot, Roger & Karen
11-0283	BABY	201	6	14.4	9.0	18.5	Kumpula, Stan
11-0283	BABY	203	6	13.6	9.5	16.0	Kumpula, Stan

Legend

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Cass County Continued

LAKE ID	LAKE NAME	SITE	NS	MEAN	MIN	MAX	VOLUNTEERS
11-0281	BARNUM	201	18	15.2	7.0	21.0	Newman, Julie
11-0069	BASS	201	9	16.3	12.5	19.5	Barington, Bill
11-0474	BASS	201	7	13.7	13.5	14.0	Wessels, James
11-0308-02	BIG PORTAGE (E BAY)/RICE PORTAGE	201	4	8.6	8.0	9.0	Dressel, LeRoy
11-0308-01	BIG PORTAGE (W BAY)	202	4	8.1	6.5	9.5	Dressel, LeRoy
11-0077	BIG SAND	201	8	11.5	11.0	13.0	Perra, Jim
11-0412	BIRCH	201	5	14.8	10.5	21.0	McCormick, James W.
11-0412	BIRCH	204	5	11.6	10.5	12.5	McCormick, James W.
11-0412	BIRCH	206	5	13.1	10.0	18.0	Haefner, Ed
11-0274	BLACKWATER	202	8	12.4	10.0	14.5	Thielmann, Lloyd
11-0274	BLACKWATER	203	8	12.7	12.0	13.0	Sleight, Scott
11-0376	BLUEBERRY	201	4	6.0	5.0	7.0	Payne, Ray
11-0143	BOY	201	7	11.1	9.5	17.0	Bistodeau, Dale
11-0263	CHILD	202	4	12.5	11.0	13.5	Schires, Arlan
11-0163	COOPER	201	9	12.2	9.5	15.0	Hipsher, Diane
11-0502	CRYSTAL	201	11	16.5	15.0	18.5	Mechelke, Robert
11-0502	CRYSTAL	203	11	12.9	12.0	14.0	Mechelke, Robert
11-0237	DEEP PORTAGE	203	4	10.0	9.0	11.0	Dressel, LeRoy
11-0342	EAGLE (CLEAR)	201	13	12.5	8.0	14.0	Stimler, Carol
11-0351	FIVE POINT	202	13	13.6	10.5	15.5	Monson, John E. & Barbara
11-0174	GIRL	203	7	14.0	11.0	19.5	Johnson, Doug & Judy
11-0086	GRAVE (GRAVES)	201	7	18.4	16.5	22.0	Scolland, Walt
11-0305	GULL	205	13	12.3	10.0	18.0	Struss, Gregg
11-0305	GULL	206	9	8.8	8.0	10.0	Jaster, Gene
11-0305	GULL	208	8	11.6	8.0	15.0	Schley, Herm
11-0305	GULL	209	16	12.2	9.0	17.0	Streed, Wes
11-0242	HAND	201	4	14.3	12.0	16.0	Epling, Patricia
11-0242	HAND	201	5	12.4	11.0	15.0	Smith, Fred W.
11-0242	HAND	202	4	14.8	14.0	16.0	Epling, Patricia
11-0242	HAND	203	4	13.8	12.0	15.0	Epling, Patricia
11-0209	HARDY	201	8	9.5	6.8	11.5	Schmutzer, Mark
11-0232	HATTIE	201	12	9.2	6.5	13.5	Johnson, Greg
11-0232	HATTIE	202	12	9.1	6.0	13.0	Johnson, Greg
11-0232	HATTIE	203	12	8.3	5.5	11.5	Johnson, Greg
11-0232	HATTIE	204	12	8.8	5.5	12.5	Johnson, Greg
11-0232	HATTIE	205	1	12.0	12.0	12.0	Johnson, Greg
11-0199	HAY	203	5	14.6	13.5	16.0	Droen, Andy
11-0472	HOWARD	202	12	14.0	10.0	19.0	Rykkeli, Ray
11-0170	HUNTER	203	11	27.7	22.5	32.0	Trampe, David
11-0120-01	INGUADONA (N. BAY)	201	16	8.1	6.5	12.5	Jass, Doug
11-0102	ISLAND	201	4	13.5	12.5	14.5	Dressen, Bill
11-0257	ISLAND	201	13	23.9	20.1	28.4	Aagard, Hans
11-0102	ISLAND	202	4	13.1	12.0	14.5	Dressen, Bill
11-0102	ISLAND	203	4	13.6	12.0	15.0	Dressen, Bill
11-0363	JOHNSON	201	7	18.9	16.0	23.0	Peterson, Sylvia
11-0262	KID	201	14	12.6	10.0	16.5	Rueter, Clarence
11-0374	LARSON	201	4	6.5	5.5	7.0	Payne, Ray
11-0053	LAWRENCE	201	11	6.9	6.0	10.5	Reiswig, Myrle & Jill
11-0053	LAWRENCE	202	11	7.6	7.0	9.5	Reiswig, Myrle & Jill
11-0037	LEAVITT	201	13	6.0	5.0	8.0	Schramm, W. Melvin

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Cass County Continued

LAKE ID	LAKE NAME	SITE	NS	MEAN	MIN	MAX	VOLUNTEERS
11-0203-01	LEECH (MAIN BASIN)	208	11	13.1	10.0	15.0	Trimble, Gerald
11-0203-04	LEECH (SHINGOBEE BAY)	203	3	9.8	8.5	11.0	Smith, George
11-0167	LITTLE BOY	201	19	10.0	7.0	15.0	Wenzel, Dewey
11-0236	LITTLE PORTAGE	202	7	15.0	13.0	16.0	Lacho, Jon & Mary
11-0092	LITTLE SAND	201	15	8.0	6.0	10.5	Klunder, Larry
11-0230	LITTLE SAND	201	3	13.7	13.5	14.0	Johnson, Greg
11-0009-01	LITTLE THUNDER (W. BAY)	201	6	11.8	7.5	13.5	Ondich, Thomas M.
11-0387	LITTLE WEB	201	4	37.0	37.0	37.0	Swenson, Gerald
11-0142-02	LONG (MAIN BASIN)	202	11	16.5	10.0	23.0	Sifford, Paul
11-0142-02	LONG (MAIN BASIN)	204	14	17.1	11.0	24.0	Arnquist, Kit
11-0142-04	LONG (SW BAY)	203	5	13.4	11.0	18.0	Casey, John R.
11-0226	LOON	201	11	10.0	8.5	11.5	Littman, Robert
11-0269	LOST	201	14	13.9	11.0	17.0	Rueter, Clarence
11-0129	LOWER TRELIPE	201	14	6.7	4.5	10.0	Senst, Charles
11-0222	MARGARET	201	18	4.5	3.0	7.0	Koska, Ed
11-0222	MARGARET	204	18	5.0	3.5	7.5	Koska, Ed
11-0261	MCKEOWN	201	11	17.8	14.0	25.0	Bjorgaard, Ralph
11-0200	MULE	201	13	17.6	10.0	21.5	Dahlager, Marjorie R.
11-0200	MULE	202	9	16.9	12.5	20.5	Hermanutz, Roger
11-0307	NORWAY	202	9	7.6	7.4	8.0	Van Vorst, Donald
11-0244	ONE (SAND NO ONE)	201	4	14.9	13.0	18.0	Jensen, Cathy
11-0355	OX YOKE	201	4	16.4	15.0	17.0	DeBoer, Arden
11-0415	PIKE BAY	201	9	16.2	11.5	22.5	Erickson, Ron
11-0411	PINE MOUNTAIN	202	3	7.2	5.5	10.5	Smude, Bob
11-0383	PLEASANT	202	9	18.4	14.0	22.0	Fark, Dan
11-0234	PONTO	201	10	20.3	14.5	26.0	Fisker, John
11-0204	PORTAGE	201	18	9.5	7.5	12.3	Knapp, Douglas
11-0476	PORTAGE	201	15	25.9	22.5	28.0	Mergens, Ed
11-0490	PORTAGE	201	9	10.3	8.0	13.0	Harris, Jay
11-0490	PORTAGE	202	12	10.6	8.0	13.0	Gustafson, Jack
11-0356	RAINY	201	12	15.3	14.0	16.5	Johnston, Judy
11-0220	RAY (BASS)	202	10	10.5	8.5	12.5	Anderson, David L.
11-0324	ROCK	201	10	6.9	5.0	10.0	Marquardt, Vergil
11-0043	ROOSEVELT	203	6	13.5	12.0	14.5	MacDonald, David
11-0043	ROOSEVELT	204	6	8.9	7.0	11.5	Neill, Denny
11-0043	ROOSEVELT	204	6	13.6	12.5	15.0	MacDonald, David
11-0043	ROOSEVELT	205	6	13.6	12.0	14.5	MacDonald, David
11-0043	ROOSEVELT	206	5	13.0	12.5	13.5	MacDonald, David
11-0043	ROOSEVELT	206	7	10.4	7.5	14.0	Pertl, Lee
11-0043	ROOSEVELT	211	9	10.7	8.0	13.5	Kowalski, Mary
11-0043	ROOSEVELT	212	4	10.3	9.0	11.0	Nicholson, Deborah
11-0361	SANBURN	203	2	16.0	14.5	17.5	Sladek, Robert
11-0279	SAND	201	5	19.6	14.5	25.5	Freitag, Katherine
11-0279	SAND	201	9	20.9	19.5	25.5	Harrison, Jim
11-0375	SURPRISE	201	4	6.6	6.0	7.5	Payne, Ray
11-0304-01	SYLVAN (SW BAY)	201	3	18.5	16.0	22.0	Skroch, Andy
11-0304-01	SYLVAN (SW BAY)	202	5	17.3	13.5	20.5	Reese, Thomas L.
11-0413	TEN MILE	202	18	23.0	20.0	26.5	Schwartz, Dr. James W.
11-0413	TEN MILE	204	18	17.9	14.5	21.0	Schwartz, Dr. James W.
11-0062	THUNDER	206	11	16.7	13.5	21.0	Edlund, Joan M.

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Cass County Continued

LAKE ID	LAKE NAME	SITE	NS	MEAN	MIN	MAX	VOLUNTEERS
11-0062	THUNDER	210	4	11.4	9.5	13.0	Berg, Pat
11-0062	THUNDER	211	4	12.1	10.5	13.0	Berg, Pat
11-0270	TRILLIUM (LIZARD)	201	16	9.6	5.5	13.0	Duncan, Robert M.
11-0218	UPPER GULL	202	12	8.6	7.5	9.3	Swenson, Jerry
11-0105	UPPER TRELIPE	201	9	13.7	10.5	17.0	Peterson, John
11-0029	VERMILLION	201	9	4.8	2.5	7.5	Saulsbury, Lonny
11-0171-01	WABEDO (NE BAY)	202	17	8.5	6.5	10.0	Anderson, Ronald
11-0171-02	WABEDO (SW BAY)	201	13	8.7	5.5	11.0	Plotnik, Mike
11-0171-02	WABEDO (SW BAY)	203	13	8.7	5.5	11.0	Plotnik, Mike
11-0059	WASHBURN	201	6	9.4	9.0	10.0	Reich, Ron
11-0059	WASHBURN	203	9	8.8	7.5	11.0	Behning, Ron
11-0059	WASHBURN	204	16	10.5	9.0	13.0	Nelles, Richard D.
11-0059	WASHBURN	205	8	15.3	12.0	18.0	Dutton, Howard
11-0059	WASHBURN	206	6	9.3	8.5	9.5	Reich, Ron
11-0059	WASHBURN	207	16	13.2	11.0	14.5	Nelles, Richard D.
11-0311	WEBB	201	12	15.5	13.5	19.0	Althaus, Don
11-0201-02	WOMAN (MAIN LAKE)	206	5	14.9	10.5	23.5	Lange, John
11-0201-02	WOMAN (MAIN LAKE)	207	7	15.4	10.5	23.0	Kruse, Don

Chisago County

LAKE ID	LAKE NAME	SITE	NS	MEAN	MIN	MAX	VOLUNTEERS
13-0012-01	CHISAGO (NORTH PORTION)	202	1	11.5	11.5	11.5	Wohlenhaus, Daniel
13-0012-02	CHISAGO (SOUTH PORTION)	201	4	3.8	3.0	4.5	Pavey, Robert
13-0012-02	CHISAGO (SOUTH PORTION)	202	4	2.9	2.5	3.5	Pavey, Robert
13-0053	COMFORT	201	6	5.4	3.0	6.5	Rheault, Charles
13-0053	COMFORT	202	6	5.5	3.0	6.0	Rheault, Charles
13-0053	COMFORT	203	6	5.3	3.5	6.0	Rheault, Charles
13-0068	FISH	201	4	10.3	8.0	13.0	Mitchell, Steve
13-0068	FISH	202	4	8.8	7.0	11.0	Mitchell, Steve
13-0083-01	GOOSE (NORTH BAY)	201	16	1.8	1.0	5.0	Schwaab, Joe
13-0083-01	GOOSE (NORTH BAY)	202	16	1.9	0.8	6.0	Schwaab, Joe
13-0083-02	GOOSE (SOUTH BAY)	201.1	4	4.0	3.5	4.5	Sudeith, Babe
13-0083-02	GOOSE (SOUTH BAY)	205	3	7.3	6.0	9.0	Steman, Robert
13-0083-02	GOOSE (SOUTH BAY)	206	16	6.9	4.5	14.5	Schwaab, Joe
13-0041-01	GREEN (LITTLE GREEN)	202	6	5.7	2.5	11.0	Ekstrand, Rick
13-0041-02	GREEN (MAIN BASIN)	201	6	9.4	4.0	17.0	Ekstrand, Rick
13-0041-02	GREEN (MAIN BASIN)	203	15	7.5	3.5	13.0	Guerten, James
13-0013	KROON	201	2	7.0	3.0	11.0	Spetzman, Jerry
13-0074	MANDALL	201	10	4.9	3.0	11.0	Merkel, Scott
13-0032-01	NORTH CENTER LAKE	202	6	3.8	2.5	6.0	Kjelland, Joe & Anne Marie
13-0032-02	NORTH CENTER POND	201	4	3.3	3.0	4.0	Nyquist, Rich
13-0079	RABOUR	201	10	4.9	3.0	11.0	Merkel, Scott
13-0069-01	RUSH (EAST BAY)	208	7	5.6	2.0	18.0	McKenzie, Tom
13-0069-02	RUSH (WEST BAY)	204	7	5.2	2.0	12.0	McKenzie, Tom
13-0069-02	RUSH (WEST BAY)	205	12	5.5	3.0	13.0	Bachmeier, Ralph P.
13-0027	SOUTH CENTER	206	7	2.7	2.0	3.5	Smude, Bob
13-0028	SOUTH LINDSTROM	204	1	11.0	11.0	11.0	Wohlenhaus, Daniel

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Clearwater County

LAKE ID	LAKE NAME	SITE	NS	MEAN	MIN	MAX	VOLUNTEERS
15-0068	LONG LOST	201	12	23.2	20.0	31.0	Svobodny, Jim
15-0068	LONG LOST	202	9	18.8	16.5	25.0	Holmes, Dean
15-0068	LONG LOST	207	9	19.8	16.5	25.0	Holmes, Dean
15-0060	WALKER BROOK	201	11	8.6	7.0	12.5	Michel, James

Cook County

LAKE ID	LAKE NAME	SITE	NS	MEAN	MIN	MAX	VOLUNTEERS
16-0622	ALTON	203	1	7.0	7.0	7.0	Lanik, Don
16-0228	BEARSKIN	201	4	22.1	19.5	23.5	Serrin, Phil & Rhoda
16-0659	BETH	202	1	9.0	9.0	9.0	Lanik, Don
16-0247	BIRCH	201	4	18.8	18.0	20.0	Edlund, Stephen
16-0397	CAM	201	1	13.5	13.5	13.5	Baxter, MN, BSA Troop 36
16-0360	CARIBOU	201	9	6.3	4.5	7.5	Kelleher, Ethel
16-0240	CARIBOU	203	1	8.5	8.5	8.5	Sabin, Nancy
16-0360	CARIBOU	203	5	6.4	5.2	8.3	Vaughan, Pat
16-0360	CARIBOU	204	5	6.5	5.0	7.8	Vaughan, Pat
16-0360	CARIBOU	205	5	6.6	5.3	8.0	Vaughan, Pat
16-0360	CARIBOU	206	9	6.6	4.5	8.5	Kelleher, Ethel
16-0360	CARIBOU	206	5	6.3	5.3	7.5	Vaughan, Pat
16-0360	CARIBOU	207	5	6.4	5.0	8.0	Vaughan, Pat
16-0524	CHEROKEE	204	1	12.5	12.5	12.5	Baxter, MN, BSA Troop 36
16-0365	CLARA	201	13	9.2	8.0	11.0	Parker, Richard
16-0139	CLEARWATER	201	4	32.3	26.5	34.5	Olson, Bob & Kay
16-0139	CLEARWATER	202	1	34.5	34.5	34.5	Olson, Bob & Kay
16-0139	CLEARWATER	204	5	32.3	27.5	35.5	Olson, Bob & Kay
16-0139	CLEARWATER	205	1	33.0	33.0	33.0	Olson, Bob & Kay
16-0139	CLEARWATER	206	1	25.0	25.0	25.0	Bourdaghs, Michael
16-0139	CLEARWATER	206	1	35.0	35.0	35.0	Olson, Bob & Kay
16-0139	CLEARWATER	207	1	34.5	34.5	34.5	Olson, Bob & Kay
16-0454	CRESCENT (PINE)	201	1	6.5	6.5	6.5	Dempich, Jennifer
16-0526	CROSS BAY	201	1	6.5	6.5	6.5	Abena, Stacy
16-0526	CROSS BAY	203	1	6.0	6.0	6.0	Hensel, John
16-0143	DEVIL TRACK	201	9	11.6	10.0	12.5	MacLean, Bonnie & David
16-0143	DEVIL TRACK	202	9	10.5	9.0	11.5	MacLean, Bonnie & David
16-0143	DEVIL TRACK	204	7	9.1	8.0	10.0	Futterer, Chuck
16-0351	FINN	201	1	6.5	6.5	6.5	Baxter, MN, BSA Troop 36
16-0909	GASKET	201	1	6.5	6.5	6.5	Baxter, MN, BSA Troop 36
16-0319	GASKIN	203	1	14.5	14.5	14.5	Baxter, MN, BSA Troop 36
16-0617	GNEISS (GENESIS)	201	1	17.0	17.0	17.0	Bourdaghs, Michael
16-0569	GORDON	201	1	15.5	15.5	15.5	Baxter, MN, BSA Troop 36
16-0569	GORDON	202	1	13.5	13.5	13.5	Baxter, MN, BSA Troop 36
16-0356	GUNFLINT	202	3	21.5	21.0	22.0	Caple, Jerry
16-0356	GUNFLINT	203	1	2.5	2.5	2.5	Caple, Jerry
16-0608	HAM	201	1	7.0	7.0	7.0	Hensel, John
16-0314	HENSON	203	1	6.5	6.5	6.5	Baxter, MN, BSA Troop 36
16-0366	HOLLY (UPPER TWIN)	201	13	4.9	4.5	5.5	Parker, Richard
16-0406	HOMER	202	14	10.5	9.5	11.5	Parker, Richard
16-0241	HORSESHOE	201	1	4.6	4.6	4.6	Sabin, Nancy
16-0227	HUNGRY JACK	201	7	19.7	16.0	23.0	Bottger, John & Barbara
16-0461	KARL	201	1	10.0	10.0	10.0	Hensel, John

Legend

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Cook County Continued

LAKE ID	LAKE NAME	SITE	NS	MEAN	MIN	MAX	VOLUNTEERS
16-0198	LEO	201	4	14.6	14.0	15.0	Little, Janet
16-0142	LITTLE CARIBOU	201	1	6.0	6.0	6.0	Bourdaghs, Michael
16-0199	LIZZ	202	2	8.3	8.1	8.5	Sabin, Nancy
16-0460	LONG ISLAND	203	1	12.0	12.0	12.0	Baxter, MN, BSA Troop 36
16-0460	LONG ISLAND	204	1	8.8	8.8	8.8	Hensel, John
16-0463	MAGNETIC	201	1	19.0	19.0	19.0	Bourdaghs, Michael
16-0610	MARABAEUF (MARABOEUF)	203	1	14.0	14.0	14.0	Bourdaghs, Michael
16-0027	MCFARLAND	201	4	16.1	12.5	18.5	Nelson, David & Stephanie
16-0027	MCFARLAND	203	4	17.6	14.5	20.5	Nelson, David & Stephanie
16-0043	MOOSE	201	1	21.5	21.5	21.5	Bourdaghs, Michael
16-0043	MOOSE	201	1	19.0	19.0	19.0	Clark, Whitney
16-0093	MOUNTAIN	201	1	25.0	25.0	25.0	Clark, Whitney
16-0093	MOUNTAIN	202	1	24.5	24.5	24.5	Bourdaghs, Michael
16-0389	MULLIGAN	201	1	11.0	11.0	11.0	Baxter, MN, BSA Troop 36
16-0353	OMEGA	204	1	12.0	12.0	12.0	Baxter, MN, BSA Troop 36
16-0808	PHEOBE	200	1	9.0	9.0	9.0	Lanik, Don
16-0252	PIKE	202	9	18.6	17.0	20.0	Heinz, Jim
16-0252	PIKE	205	9	19.5	16.5	22.0	Heinz, Jim
16-0252	PIKE	206	9	18.6	16.5	20.0	Heinz, Jim
16-0041	PINE	203	1	21.0	21.0	21.0	Bourdaghs, Michael
16-0239	POPLAR	203	5	11.2	11.0	11.5	Perusse, Harvey & Joan
16-0239	POPLAR	204	5	11.0	11.0	11.0	Perusse, Harvey & Joan
16-0200	ROAD	201	2	5.3	4.5	6.0	Lease, Eleanor
16-0633-01	SAGANAGA (AREA 1)	201	1	13.5	13.5	13.5	Tegeder, Mike
16-0633-02	SAGANAGA (AREAS 2 and 4)	201	1	13.5	13.5	13.5	Tegeder, Mike
16-0496	SAWBILL	202	1	8.0	8.0	8.0	Lanik, Don
16-0629	SEAGULL	200	1	26.0	26.0	26.0	Tegeder, Mike
16-0629	SEAGULL	204	14	15.6	13.5	17.0	Lande, Kathy
16-0527	SNIPE	202	1	6.5	6.5	6.5	Abena, Stacy
16-0202	SQUINT	201	2	8.5	8.0	9.0	Lease, Eleanor
16-0019	TOM	202	10	9.1	8.5	10.5	Bolinger, Harold
16-0345	TOMASH	201	1	5.0	5.0	5.0	Dempich, Jennifer
16-0345	TOMASH	202	1	2.0	2.0	2.0	Dempich, Jennifer
16-0345	TOMASH	203	1	4.0	4.0	4.0	Dempich, Jennifer
16-0458	TOWN	201	1	13.5	13.5	13.5	Baxter, MN, BSA Troop 36
16-0623	TUSCARORA	204	1	12.5	12.5	12.5	Abena, Stacy
16-0156	TWO ISLAND	201	4	8.6	6.5	11.0	Sackrison, Kathleen
16-0349	WANIHIGAN (TRAP)	201	1	11.0	11.0	11.0	Baxter, MN, BSA Troop 36
16-0369	WHITE PINE	201	13	6.4	5.0	7.5	Parker, Richard
16-0354	WINCHELL	204	1	14.5	14.5	14.5	Baxter, MN, BSA Troop 36

Cottonwood County

LAKE ID	LAKE NAME	SITE	NS	MEAN	MIN	MAX	VOLUNTEERS
17-0007	BINGHAM	201	17	1.9	1.0	4.0	Turner, Dr. Bruce A.
17-0003	MOUNTAIN	201	12	2.5	1.5	5.0	Palm, Marlin

Legend

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Crow Wing County

LAKE ID	LAKE NAME	SITE	NS	MEAN	MIN	MAX	VOLUNTEERS
18-0358	BASS	201	11	16.6	14.0	19.5	Swanson, Mary
18-0384	BASS	201	9	17.8	16.0	19.0	Helsene, Larry
18-0034	BAY	203	15	15.0	12.0	23.0	Anderson, Dane
18-0034	BAY	204	9	13.2	11.0	15.0	Sather, Elliot & Monica
18-0034	BAY	205	15	14.7	11.0	20.0	Anderson, Dane
18-0034	BAY	206	15	15.2	12.5	19.0	Anderson, Dane
18-0315	BIG TROUT	205	1	21.0	21.0	21.0	Johnson, Harold “Buzz”
18-0259	BONNIE	201	6	16.9	16.0	17.5	Gatzow, Ray
18-0259	BONNIE	202	6	16.9	16.0	17.5	Gatzow, Ray
18-0020	BORDEN	201	12	8.5	8.0	9.0	Puchtell, Richard
18-0231	BUTTERFIELD	201	1	12.0	12.0	12.0	Johnson, Jim
18-0018	CAMP	201	7	6.7	5.5	8.5	Tinberg, Julie
18-0374	CLARK	201	2	11.5	11.0	12.0	Bedard, George
18-0038	CLEARWATER	203	15	15.2	11.5	17.5	Kittock, Al
18-0038	CLEARWATER	207	15	14.0	11.0	17.0	Jones, Robert H.
18-0041-02	CROOKED (MAIN BAY)	201	11	16.3	15.0	20.0	Morrison, John A.
18-0041-02	CROOKED (MAIN BAY)	202	11	15.2	13.0	17.0	Morrison, John A.
18-0041-02	CROOKED (MAIN BAY)	203	11	16.9	16.0	19.0	Morrison, John A.
18-0041-02	CROOKED (MAIN BAY)	204	11	15.4	13.0	17.0	Morrison, John A.
18-0041-02	CROOKED (MAIN BAY)	205	6	15.1	14.0	16.0	Steblay, Jon K. & Margaret
18-0041-01	CROOKED (SUGAR BAY)	201	6	13.5	12.5	14.0	Steblay, Jon K. & Margaret
18-0312	CROSS LAKE RESERVOIR	204	1	14.5	14.5	14.5	Johnson, Harold “Buzz”
18-0155	CROW WING	202	5	4.8	1.5	8.0	Vik, Lois & Marvin
18-0155	CROW WING	203	5	5.3	2.0	8.5	Vik, Lois & Marvin
18-0155	CROW WING	204	5	4.8	1.5	8.0	Vik, Lois & Marvin
18-0271	DAGGETT	202	10	9.0	5.5	12.0	Neer, Larry
18-0298	EAST FOX	202	9	15.4	13.5	18.0	Stancer, Bob
18-0407	EAST TWIN	201	2	16.3	15.5	17.0	Adams, Tom
18-0305	EDWARD	203	12	15.1	13.0	19.5	Olson, Merle (Bud)
18-0203	EMILY	201	18	3.5	2.5	5.5	Dick, Ron
18-0320-01	GILBERT (E. BAY)	203	4	18.4	15.0	21.5	Borash, Maurice
18-0320-01	GILBERT (E. BAY)	204	4	12.8	9.0	15.5	Borash, Maurice
18-0338	GLADSTONE	203	6	14.1	8.5	24.0	MacDonald Jr., Robert G.
18-0226	GOODRICH	204	5	16.8	16.0	17.5	Boyd, Harold
18-0080	GOOSE	201	1	12.0	12.0	12.0	Dix, Bill
18-0070	HAMLET	201	13	18.5	17.5	19.5	Stelter, Scott
18-0044	HANKS	202	6	15.4	13.5	17.5	Steblay, Jon K. & Margaret
18-0251-01	HORSESHOE (E. BAY)	206	7	16.9	12.5	20.0	Westby, Ray
18-0251-02	HORSESHOE (W. BAY)	205	16	16.9	12.5	25.0	Geadelmann, Jon
18-0375	HUBERT	207	3	16.2	14.0	18.0	Tack, Dennis
18-0183	ISLAND	201	13	5.3	3.5	6.6	Dierling, Beatrice L.
18-0279	LITTLE BEAVER	201	1	14.5	14.5	14.5	Manske, Charles & Nathan
18-0340	LITTLE HUBERT	202	9	15.8	13.0	20.0	Bloom, John
18-0351	LITTLE PELICAN	202	9	14.3	12.5	16.5	Loyva, Allan O.
18-0266	LITTLE PINE	202	5	7.5	5.0	9.5	Haag, Dan
18-0266	LITTLE PINE	203	10	9.1	5.5	11.5	Neer, Larry
18-0357	LITTLE ROUND	201	3	14.7	12.0	16.5	Kroeger, John
18-0360	LITTLE STAR	201	3	15.3	13.0	17.5	Kroeger, John
18-0076	LONG	201	8	16.9	12.0	24.0	Weisbrod, Tom
18-0342	LOUGEE	203	9	9.1	7.0	11.0	Hickman, Don

Legend

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Crow Wing County Continued

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18-0403	LOWER CULLEN	202	4	12.9	9.0	17.0	Beaver, Tom & Ann
18-0403	LOWER CULLEN	202	13	12.7	10.0	16.0	Swift, Gil
18-0378	LOWER HAY	201	10	11.8	7.3	15.8	Topinka, Dave & Judy
18-0378	LOWER HAY	202	10	11.8	7.3	15.8	Topinka, Dave & Judy
18-0378	LOWER HAY	203	15	13.0	8.5	17.5	Rezanka, Kay
18-0378	LOWER HAY	204	10	12.1	7.3	16.3	Topinka, Dave & Judy
18-0243	LOWER MISSION	203	1	2.5	2.5	2.5	Hedlund, Ron
18-0343	MARKEE	202	12	14.3	11.0	21.0	Holst, Dick & Janet
18-0343	MARKEE	203	12	15.3	11.5	22.5	Kramer, Dale
18-0185	MARY	202	4	4.3	4.0	4.5	Fairchild, Paul & Bonnie
18-0377	MIDDLE CULLEN	204	10	14.0	11.5	15.5	Boudrye, Charlie & Marie
18-0021	MILLER (ALMOND)	202	7	12.1	10.5	14.0	Garbarini, James
18-0294	MITCHELL	201	15	7.5	4.5	10.8	Cardinal, Ken
18-0166	MUD	201	2	2.8	2.5	3.0	Flemmer, Arlene G.
18-0372	NORTH LONG	204	12	11.6	10.0	13.0	Rush, Ken
18-0372	NORTH LONG	206	12	15.5	14.0	17.0	Loney, Corey
18-0372	NORTH LONG	208	1	14.5	14.5	14.5	Mason, Don & Janet
18-0372	NORTH LONG	210	4	15.0	13.5	17.5	McMenimen, Michael
18-0227-02	O'BRIEN (NE BAY)	201	12	17.0	12.5	22.0	Peterson, Martin
18-0352	OSSAWINNAMAKEE	201	8	16.3	13.0	18.5	Donaldson, Alec & Donna
18-0352	OSSAWINNAMAKEE	203	8	15.3	13.0	17.5	Donaldson, Alec & Donna
18-0352	OSSAWINNAMAKEE	204	14	16.7	14.0	18.0	O'Donnell, Joe & Catherine
18-0352	OSSAWINNAMAKEE	211	14	15.6	13.0	17.0	O'Donnell, Joe & Catherine
18-0308	PELICAN	205	6	18.6	18.0	19.0	Smieja, Dr. Gerald D.
18-0371	PERCH	201	3	19.3	16.0	21.0	Paul, David B.
18-0354	PIG	201	13	11.9	3.5	14.5	Boline, John & Gail
18-0088	PLATTE	201	9	5.6	5.0	6.0	Dilly, Kevin
18-0088	PLATTE	202	9	5.6	5.0	6.0	Dilly, Kevin
18-0088	PLATTE	203	6	4.8	3.0	8.5	Bosn, Al
18-0088	PLATTE	207	6	4.8	3.5	7.5	Bosn, Al
18-0050	PORTAGE	201	6	12.3	10.5	16.0	Steblay, Jon K. & Margaret
18-0050	PORTAGE	203	6	11.7	11.5	12.5	Kennedy, Lorie
18-0093-01	RABBIT (EAST PORTION)	202	7	15.1	11.0	19.0	Hendrichs, Dennis
18-0093-01	RABBIT (EAST PORTION)	204	7	14.7	10.0	18.0	Hendrichs, Dennis
18-0093-02	RABBIT (WEST PORTION)	201	7	17.6	12.0	22.0	Hendrichs, Dennis
18-0093-02	RABBIT (WEST PORTION)	202	3	17.5	15.0	19.0	Kidd, Larry
18-0093-02	RABBIT (WEST PORTION)	203	7	16.4	12.0	23.0	Hendrichs, Dennis
18-0386	RED SAND	201	12	10.7	5.0	13.5	Schmidt, Eldo
18-0165	ROSS	202	7	5.3	4.5	6.0	Garberg, Robert
18-0373	ROUND	202	10	9.7	6.5	14.5	von Fischer, Robert
18-0373	ROUND	203	7	13.5	9.0	17.5	Stark, Larry
18-0373	ROUND	205	3	14.2	13.5	15.0	Alsleben, Jerry
18-0373	ROUND	206	10	10.2	6.5	15.0	von Fischer, Robert
18-0311	RUSH	201	10	12.3	9.0	14.0	Zahler, Kevin
18-0212	RUTH	205	3	20.0	20.0	20.0	Bialon, Van
18-0212	RUTH	206	3	19.7	19.0	20.0	Bialon, Van
18-0033	SCOTT	201	3	12.5	12.0	13.0	Wadsten, Brad
18-0090	SERPENT	201	12	16.0	12.0	19.5	Bowen, Arlen
18-0072	SHIRT	201	2	12.5	12.5	12.5	O'Brien, John
18-0239	SILVER	201	4	18.5	17.5	19.5	Duerre, Dick

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Crow Wing County Continued

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18-0028	SMITH	201	11	9.9	8.0	12.0	Vaidich, Tom & Mary
18-0028	SMITH	202	13	10.4	9.5	11.5	Playle, William
18-0028	SMITH	202	11	10.3	8.5	12.0	Vaidich, Tom & Mary
18-0028	SMITH	203	11	10.6	9.0	13.0	Vaidich, Tom & Mary
18-0359	STAR	204	3	16.2	15.0	17.5	Kroeger, John
18-0359	STAR	205	3	15.3	15.0	16.0	Kroeger, John
18-0359	STAR	205	1	13.5	13.5	13.5	Manske, Charles & Alyssa
18-0169	STARK	201	7	7.3	4.0	9.0	Olson, Gary G.
18-0169	STARK	204	12	6.5	4.5	7.5	Adam, Joseph
18-0167-01	TWIN (WEST BASIN)	201	4	6.0	5.5	6.5	Konstas, Ernest
18-0167-01	TWIN (WEST BASIN)	202	8	4.8	4.5	5.0	Olson, Kurt
18-0148	TWIN LAKES	201	11	15.3	13.5	18.5	Eisel, Mervin
18-0148	TWIN LAKES	202	11	12.9	11.5	15.0	Eisel, Mervin
18-0385	UNNAMED	201	9	9.0	9.0	9.0	Helsene, Larry
18-0376	UPPER CULLEN	207	4	10.8	7.0	14.0	Opsahl, Dennis
18-0412	UPPER HAY	201	13	9.4	6.0	16.0	Jensen, Paul & LaVonne
18-0412	UPPER HAY	202	17	8.9	5.5	16.0	Jensen, Paul & LaVonne
18-0242	UPPER MISSION	205	5	12.2	6.0	17.0	Hedlund, Ron
18-0242	UPPER MISSION	206	5	12.6	6.0	18.0	Hedlund, Ron
18-0096	UPPER SOUTH LONG	202	12	8.3	5.5	14.0	Nelson, Herb
18-0096	UPPER SOUTH LONG	204	12	6.6	4.5	10.5	Nelson, Herb
18-0096	UPPER SOUTH LONG	205	12	6.8	4.5	9.5	Rolfs, John R.
18-0284	VELVET	201	12	10.2	7.5	12.5	Blosberg, Dale
18-0297	WEST FOX	203	9	14.1	11.5	17.5	Stancer, Bob
18-0409	WEST TWIN	202	14	19.3	15.5	24.8	Yahn, Jonathan
18-0379	WHITE SAND	203	7	11.4	8.0	14.5	Mezner, Laurel
18-0001	WHITEFISH	201	8	12.1	11.5	13.0	Vessey, General John W.
18-0310	WHITEFISH	208	15	9.6	7.0	13.0	Rezanka, Kay
18-0252	YOUNG	201	1	17.0	17.0	17.0	Manske & Johathon DeVillier, Charles

Dakota County

LAKE ID	LAKE NAME	SITE	NS	MEAN	MIN	MAX	VOLUNTEERS
19-0021	ALIMAGNET	201	5	2.1	1.5	3.5	Grazzini Jr., Gene
19-0081	AUGUSTA	201	1	0.8	0.8	0.8	Stein, Ellsworth
19-0006	BYLLESBY	201	6	1.3	1.0	1.5	Moesler, Guenther & Allene
19-0006	BYLLESBY	202	6	2.8	1.5	5.5	Moesler, Guenther & Allene
19-0006	BYLLESBY	203	6	2.8	1.5	4.5	Moesler, Guenther & Allene
19-0155	CARLSON	201	2	3.6	3.5	3.8	Weston, Steve
19-0150	CEDAR POND	201	7	1.9	1.5	3.0	Ochs, Mark
19-0161	EAST THOMAS	201	7	3.0	2.0	4.0	Hedblom, Tom
19-0057	FISH	204	8	4.8	2.0	9.1	Nippert, Carl
19-0069	GERHARDT	201	3	1.7	1.5	2.0	Peterson, Bruce
19-0004	ISABEL	201	4	0.6	0.5	1.0	Chapman, Clarence & Helen
19-0082	LEMAY	201	2	2.5	1.5	3.5	Heyn, John L.
19-0067	THOMAS	203	6	4.8	4.0	5.0	Alt, Joanne
19-0140	UNNAMED (FARM POND)	201	3	2.7	2.5	3.0	Halverson, Tony & Mary
19-0062	UNNAMED (HAY)	201	5	4.0	3.0	5.0	Krech, Jack
19-0153	UNNAMED (HEINE LK)	201	7	11.8	10.0	16.0	Ochs, Mark
19-0290	UNNAMED (JP-23)	201	5	2.8	1.0	4.0	Scheller, Dan

Legend

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Dakota County Continued

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19-0454	UNNAMED (LP-39)	201	5	2.8	2.0	5.0	Solie, Greg
19-0156	UNNAMED (LP-44)	201	13	1.0	0.5	1.5	Tyre, Royce M.
19-0063	UNNAMED (SCHWANZ)	201	8	4.8	2.0	7.5	Schaefer, Joseph
19-0063	UNNAMED (SCHWANZ)	202	8	4.8	2.0	7.5	Schaefer, Joseph
19-0063	UNNAMED (SCHWANZ)	203	8	4.9	2.0	7.5	Schaefer, Joseph
19-0095	UNNAMED (SEIDL)	201	9	2.3	1.5	3.0	Bartz, Harvey & Janet

Douglas County

LAKE ID	LAKE NAME	SITE	NS	MEAN	MIN	MAX	VOLUNTEERS
21-0145	BIG CHIPPEWA	202	5	14.0	11.0	20.0	Otto, Jim
21-0145	BIG CHIPPEWA	203	5	12.3	11.0	13.0	Otto, Jim
21-0102	BROPHY	201	4	8.8	5.5	15.5	Saurdiff, Ron (Red)
21-0057	CARLOS	205	4	10.0	9.0	11.0	Baker, Dave
21-0103	COWDRY	201	8	10.9	8.5	14.0	Ries, Thomas M.
21-0199-01	CROOKED (NW BAY)	201	4	10.5	10.0	11.0	Howe, Mike
21-0080	DARLING	202	16	10.1	7.0	17.5	Landman, Kirk
21-0080	DARLING	203	16	10.6	7.0	15.5	Landman, Kirk
21-0213	DEVILS	201	9	7.9	6.5	12.0	Davis, Harry
21-0052	GENEVA	201	17	10.0	7.5	17.0	Hains, Leonard
21-0052	GENEVA	202	5	11.0	7.0	17.0	Moe, Nicholas
21-0123	IDA	201	14	11.9	8.6	17.5	Jahnke, Dean R.
21-0123	IDA	202	11	13.9	9.5	21.0	Sandstrom, Bill
21-0123	IDA	203	7	12.3	9.0	17.0	Mathson, Mel
21-0123	IDA	204	2	10.5	10.5	10.5	Anderson, Raymond
21-0123	IDA	205	8	15.3	9.0	21.0	Kilgore, William
21-0123	IDA	206	6	13.9	11.5	16.0	Wood, Janet & Tom
21-0123	IDA	207	7	11.2	8.0	15.0	Hoeben, Al & Darlene
21-0123	IDA	208	10	12.8	9.5	15.0	Kanwischer, Jim
21-0123	IDA	209	10	13.3	9.0	18.0	Erstad, Don & Yvonne
21-0123	IDA	210	5	12.6	11.0	15.0	Bedman, Harry
21-0123	IDA	211	6	15.2	10.0	19.0	Delp, Cliff
21-0123	IDA	214	4	12.0	10.0	15.0	Katzmerak, Richard
21-0123	IDA	215	11	13.8	10.0	17.5	Kohnen, Richard (Dick)
21-0076	IRENE	203	14	6.0	2.5	12.0	Heesen, Don
21-0055	JESSIE	201	17	6.1	3.0	12.5	Kerick, Tony
21-0106-01	LATOKA (NORTH BAY)	202	10	13.4	11.5	16.5	Braun, Rich & Marlene
21-0106-01	LATOKA (NORTH BAY)	203	11	13.3	11.5	16.5	Braun, Rich & Marlene
21-0106-02	LATOKA (SOUTH BAY)	201	11	13.1	9.5	17.0	Braun, Rich & Marlene
21-0056	LE HOMME DIEU	204	4	13.5	8.0	21.0	Kosin, George
21-0056	LE HOMME DIEU	205	2	10.0	8.0	12.0	Clayton, James
21-0056	LE HOMME DIEU	206	2	9.5	8.0	11.0	Clayton, James
21-0056	LE HOMME DIEU	207	2	10.0	8.0	12.0	Clayton, James
21-0056	LE HOMME DIEU	208	2	11.0	10.0	12.0	Clayton, James
21-0056	LE HOMME DIEU	209	2	12.5	11.0	14.0	Clayton, James
21-0212	LITTLE CHIPPEWA	201	4	9.6	6.0	12.0	Greenquist, Bud & Florence
21-0144-01	LOBSTER (EAST BAY)	201	18	9.0	6.0	17.5	Onstad, Pete
21-0144-01	LOBSTER (EAST BAY)	202	15	8.2	5.0	13.5	Onstad, Pete
21-0144-02	LOBSTER (WEST BAY)	201	16	9.2	5.0	19.0	Onstad, Pete
21-0144-02	LOBSTER (WEST BAY)	202	16	8.4	4.5	16.5	Onstad, Pete
21-0079	MAPLE	203	17	11.9	8.0	17.0	Steffen, Ralph E.

Legend

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Douglas County Continued

LAKE ID	LAKE NAME	SITE	NS	MEAN	MIN	MAX	VOLUNTEERS
21-0092	MARY	205	9	5.9	4.5	9.5	Schmidt, Terry
21-0092	MARY	206	6	7.3	5.0	12.5	Bahn, Gary
21-0083	MILTONA	201	6	14.4	9.5	21.0	Zins, Steve & Linda
21-0083	MILTONA	202	6	14.7	9.0	21.0	Zins, Steve & Linda
21-0083	MILTONA	203	7	10.1	7.0	14.0	Fulton, Jerry
21-0083	MILTONA	204	7	9.4	7.0	14.0	Fulton, Jerry
21-0245	MOSES	201	11	14.7	9.5	19.0	Cress, James
21-0245	MOSES	202	7	18.3	15.0	21.0	Sparks, Dennis
21-0291	RED ROCK	202	7	6.9	5.5	10.0	Dahl, Elmo
21-0016	SMITH	202	10	5.2	2.5	9.0	Bohner, Neil
21-0264	STOWE	204	4	4.5	3.0	9.0	Gilligan, Eugene E.
21-0054	VICTORIA	204	14	11.3	5.5	20.0	Syverson, Mike
21-0216	WHISKEY	202	10	7.1	2.0	10.5	Bulger, Shawn
21-0081	WINONA	201	9	1.1	0.7	1.3	Pugh, Charles E.

Freeborn County

LAKE ID	LAKE NAME	SITE	NS	MEAN	MIN	MAX	VOLUNTEERS
24-0028	BEAR	202	4	2.6	2.5	3.0	Marpe, Scott
24-0030	STATE LINE	202	5	0.6	0.5	0.7	Marpe, Scott

Grant County

LAKE ID	LAKE NAME	SITE	NS	MEAN	MIN	MAX	VOLUNTEERS
26-0095	BARRETT	202	8	8.8	4.0	12.0	Montonye, Joe
26-0040	ELK	202	5	6.0	5.5	6.5	Eblen, Gene
26-0282	LIGHTNING	201	4	3.5	2.0	5.0	Weigand, Clair
26-0002	PELICAN	201	3	4.1	3.8	4.5	Vodegel, Don
26-0002	PELICAN	202	3	4.0	3.3	4.8	Vodegel, Don
26-0002	PELICAN	203	3	3.7	3.3	4.0	Vodegel, Don
26-0002	PELICAN	204	3	2.9	2.8	3.0	Vodegel, Don
26-0002	PELICAN	208	3	4.0	3.5	4.5	Vodegel, Don
26-0097	POMME DE TERRE	202	6	3.5	2.5	5.0	Hubbard, Ken

Hennepin County

LAKE ID	LAKE NAME	SITE	NS	MEAN	MIN	MAX	VOLUNTEERS
27-0098	BASS	203	13	3.7	1.5	10.0	Groth, Marvin L.
27-0047	BUSH	201	3	10.2	6.5	12.5	Wood, Charles
27-0047	BUSH	202	3	9.8	7.5	11.0	Wood, Charles
27-0047	BUSH	203	3	10.2	7.0	12.0	Wood, Charles
27-0047	BUSH	204	3	8.8	6.0	10.5	Wood, Charles
27-0047	BUSH	205	3	9.5	6.0	11.5	Wood, Charles
27-0031	CALHOUN	202	9	14.9	12.5	18.5	DuFresne, Jorja
27-0119	CEDAR ISLAND	202	12	1.1	1.0	1.5	Lane, Steven
27-0022	DIAMOND	202	8	1.8	1.0	3.5	Jeutter, Larry
27-0111-01	EAGLE	203	3	7.3	5.0	10.0	Collins, George
27-0111-01	EAGLE	204	3	4.7	2.5	7.0	Hippen, Ron
27-0111-01	EAGLE	205	3	4.3	3.0	6.0	Hippen, Ron
27-0191-02	EAST SARAH	206	10	3.0	2.0	7.5	Allen, David
27-0118	FISH	206	11	3.5	2.5	6.4	Schultz Chouinard, Diane
27-0016	HARRIET	202	1	9.0	9.0	9.0	Westphal, Warren

Legend

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Hennepin County Continued

LAKE ID	LAKE NAME	SITE	NS	MEAN	MIN	MAX	VOLUNTEERS
27-0176	INDEPENDENCE	204	8	3.3	2.0	6.0	McLaughlin, Mike
27-0160	LONG	201	9	2.8	2.0	5.5	LaHay, Jeff
27-0103	LOST	202	12	1.6	0.9	2.3	Shebuski, Joe
27-0133-06	MINNETONKA (BLACK LK)	201	11	5.7	4.5	9.5	King, Wallace
27-0133-10	MINNETONKA (CRYSTAL BAY)	201	6	5.7	3.0	12.0	Humboldt, Joyce
27-0133-09	MINNETONKA (HALSTEDS BAY)	203	7	4.1	2.0	10.0	Magnuson, Michelle
27-0133-09	MINNETONKA (HALSTEDS BAY)	204	5	4.0	2.0	8.5	Seeley, Larry E.
27-0133-02	MINNETONKA (LOWER LAKE)	201	2	12.3	8.0	16.5	Fey, Fred
27-0133-02	MINNETONKA (LOWER LAKE)	204	10	10.8	7.5	14.0	Backes, Marie J.
27-0133-02	MINNETONKA (LOWER LAKE)	210	3	9.0	8.0	10.0	Sundet, John
27-0133-02	MINNETONKA (LOWER LAKE)	212	9	10.2	6.0	17.0	Nyce, Jim
27-0133-02	MINNETONKA (LOWER LAKE)	213	16	11.6	8.5	17.0	Davis, Jill
27-0133-11	MINNETONKA (MAXWELL BAY)	201	6	4.9	2.8	8.0	Humboldt, Joyce
27-0133-12	MINNETONKA (STUBBS BAY)	202	6	2.3	1.5	4.0	Humboldt, Joyce
27-0133-05	MINNETONKA (UPPER LAKE)	201	7	6.4	4.0	9.5	Kittelsen, Jeff
27-0133-05	MINNETONKA (UPPER LAKE)	206	14	7.7	4.0	14.5	Partyka, Eugene
27-0133-05	MINNETONKA (UPPER LAKE)	207	9	8.2	5.5	12.5	Shellenbaum, Steve
27-0133-05	MINNETONKA (UPPER LAKE)	208	3	6.3	6.0	6.5	Mason, Mike
27-0133-05	MINNETONKA (UPPER LAKE)	210	17	8.8	6.0	17.0	Skramstad, Tom
27-0133-05	MINNETONKA (UPPER LAKE)	211	2	7.3	7.0	7.5	Edwards, Ward
27-0133-14	MINNETONKA (W. ARM)	205	4	4.6	1.5	9.5	Reinhardt, Sarah
27-0133-14	MINNETONKA (W. ARM)	206	10	3.0	1.5	6.0	Johnson, Paul
27-0055	MIRROR	201	3	1.3	1.0	1.5	Shaughnessy, Suzanne
27-0019	NOKOMIS	202	8	3.4	1.5	7.0	Jeutter, Larry
27-0107	PARKERS	201	17	7.5	2.5	15.0	Videen, Marsha & Robert
27-0111-02	PIKE	202	3	2.5	1.5	3.5	Hippen, Ron
27-0111-02	PIKE	203	3	2.0	1.5	2.5	Hippen, Ron
27-0014	POWDERHORN	203	5	3.2	2.0	4.0	Livingston, James
27-0076	RED ROCK	201	5	5.0	2.5	10.5	Henk, Ken
27-0116	RICE	201	14	3.5	2.0	7.0	Schneider, George
27-0102	SCHMIDT (SMITH)	201	7	6.4	3.3	9.5	Wahlstrom, Dale
27-0141	TANAGER	202	13	3.3	1.8	9.0	Molumby, Gary
27-0874	UNNAMED (PONDIDY)	201	6	2.3	2.2	3.0	Connolly, Bob
27-0117	WEAVER	201	11	14.8	8.5	23.0	Lugtu, Trish
27-0191-01	WEST SARAH	206	19	2.8	1.5	6.5	Peterson, Mike

Hubbard County

LAKE ID	LAKE NAME	SITE	NS	MEAN	MIN	MAX	VOLUNTEERS
29-0208	BAD AXE	203	6	17.1	15.0	19.0	Martin, John
29-0146	BELLE TAINE	201	12	13.4	10.0	18.5	Smith, Bob & Julie
29-0146	BELLE TAINE	202	12	16.3	11.0	27.5	Smith, Bob & Julie
29-0146	BELLE TAINE	203	11	20.9	15.5	36.0	Smith, Bob & Julie
29-0146	BELLE TAINE	204	12	21.0	16.0	35.0	Smith, Bob & Julie
29-0032	BIG BASS	201	16	21.6	18.0	26.0	Miller, Fred
29-0185	BIG SAND	204	9	24.1	19.0	29.0	Wenzel, James B.
29-0185	BIG SAND	206	4	21.3	19.0	25.0	Dyre, Dan
29-0185	BIG SAND	206	9	23.6	19.0	29.0	Wenzel, James B.
29-0185	BIG SAND	207	4	20.9	18.0	25.5	Dyre, Dan
29-0185	BIG SAND	208	4	20.8	17.5	25.5	Dyre, Dan
29-0143	BIG STONY	203	7	9.4	8.5	11.5	Petersen, Roger W.

Legend

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Hubbard County Continued

LAKE ID	LAKE NAME	SITE	NS	MEAN	MIN	MAX	VOLUNTEERS
29-0184	BLUE	203	10	16.0	13.0	19.0	Carlson, Rollin
29-0142	DUCK	201	16	10.4	8.0	12.5	Mead, Dewayne
29-0256	EAGLE	201	7	9.2	7.0	12.5	Weideman, Mike & Janine
29-0256	EAGLE	202	7	9.5	7.5	12.0	Weideman, Mike & Janine
29-0110	EAST DEAD	201	9	22.3	21.0	25.0	Graham, Jim
29-0072	EIGHTH CROW WING	202	5	7.9	4.0	11.5	Weil, Jim & Joann
29-0092	FIFTH CROW WING	201	9	9.8	5.0	18.0	Petersen, Howard E.
29-0086	FIRST CROW WING	203	5	4.1	2.0	6.0	Forcier, Oscar
29-0242	FISH HOOK	201	9	9.2	8.5	10.5	McCann, Mike
29-0242	FISH HOOK	202	9	10.4	9.5	11.0	McCann, Mike
29-0242	FISH HOOK	203	9	11.2	10.5	12.0	McCann, Mike
29-0242	FISH HOOK	204	9	10.9	10.0	12.0	McCann, Mike
29-0242	FISH HOOK	205	9	10.8	10.0	11.5	McCann, Mike
29-0188	GILMORE	202	14	13.3	9.0	18.0	Thielges, Tom & Iva
29-0071	GRACE	201	10	14.3	8.0	21.5	Black, Richard
29-0088	ISLAND	201	4	12.8	11.0	14.0	Nelson, James
29-0254	ISLAND	201	8	9.3	7.0	15.0	Ridgley, Bryan
29-0075	KABEKONA	206	12	9.8	8.0	12.0	Smeby, Rolf C.
29-0313	LITTLE MANTRAP	201	7	18.5	16.5	20.5	Axelson, June & Richard
29-0313	LITTLE MANTRAP	202	7	19.6	16.0	23.0	Axelson, June & Richard
29-0313	LITTLE MANTRAP	203	7	19.1	17.0	20.5	Axelson, June & Richard
29-0150	LITTLE SAND	201	9	20.7	17.0	25.0	Luke, Mel
29-0150	LITTLE SAND	203	7	20.1	18.0	22.0	Sedlak, Sarah
29-0161	LONG	201	8	10.6	7.5	12.0	Dahl, Scott
29-0161	LONG	202	8	10.5	7.0	12.0	Dahl, Scott
29-0161	LONG	203	8	10.6	7.5	12.0	Dahl, Scott
29-0180	LOWER BOTTLE	201	10	14.7	11.0	21.0	Evans, Lyle
29-0180	LOWER BOTTLE	203	10	17.6	11.0	26.0	Evans, Lyle
29-0180	LOWER BOTTLE	204	10	15.9	10.0	24.0	Evans, Lyle
29-0151-01	MANTRAP (EAST BASIN)	201	15	15.4	10.5	20.0	Laske, Lyle
29-0151-01	MANTRAP (EAST BASIN)	203	15	15.2	11.0	19.0	Laske, Lyle
29-0151-05	MANTRAP (HOME BAY)	201	16	15.8	14.0	18.0	Gabbert, Charles W.
29-0151-02	MANTRAP (MIDDLE BASIN)	203	16	11.8	8.0	16.0	Gabbert, Charles W.
29-0151-02	MANTRAP (MIDDLE BASIN)	205	16	11.8	8.5	15.0	Gabbert, Charles W.
29-0151-02	MANTRAP (MIDDLE BASIN)	207	16	10.2	7.0	14.0	Gabbert, Charles W.
29-0151-04	MANTRAP (WEST ARM)	202	16	14.8	12.0	17.0	Gabbert, Charles W.
29-0151-04	MANTRAP (WEST ARM)	203	16	14.6	13.0	17.0	Gabbert, Charles W.
29-0066	MIDGE	201	7	12.7	10.0	16.0	Brove, Ralph
29-0247	MORAN	202	8	11.9	11.5	12.5	Giefer, Tom
29-0002	MOW (MAUL)	201	1	14.0	14.0	14.0	Lowry, Gene
29-0025	NINTH CROW WING	201	5	10.8	8.5	12.5	Weil, Jim & Joann
29-0087	PALMER	203	8	12.3	11.5	13.5	Hed, Loren
29-0156	PLANTAGENET	202	16	6.9	3.0	17.5	Mueller, Clint
29-0250	PORTAGE	201	23	3.1	1.8	6.5	Peterson, Marilyn
29-0243	POTATO	202	17	10.3	7.5	13.5	Rothermel, Richard A.
29-0243	POTATO	203	17	9.7	7.0	13.0	Rothermel, Richard A.
29-0243	POTATO	204	15	10.4	8.0	15.0	Sundstrom, Jim
29-0243	POTATO	205	13	10.2	7.5	13.5	Sorenson, Mark
29-0243	POTATO	206	8	9.6	8.0	11.0	Sawyer, Cliff
29-0091	SEVENTH CROW WING	201	4	6.4	3.5	9.0	Bastis, Charles

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Hubbard County Continued

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29-0043	SHINGOBEE	201	23	13.5	9.0	17.5	Hudson, Dallas
29-0117-02	SPIDER (EAST BAY)	203	11	16.9	14.0	23.0	Miller, Everett W.
29-0117-01	SPIDER (NE/SW BAY)	201	11	16.2	13.5	22.0	Miller, Everett
29-0148	UPPER BOTTLE	201	6	15.1	10.0	22.0	Jones, Bill
29-0148	UPPER BOTTLE	202	6	16.0	11.0	24.0	Jones, Bill
29-0148	UPPER BOTTLE	203	6	14.8	10.0	21.0	Jones, Bill
29-0148	UPPER BOTTLE	204	6	14.6	8.0	21.0	Jones, Bill
29-0148	UPPER BOTTLE	205	6	16.5	11.0	30.0	Jones, Bill
29-0157	UPPER TWIN	201	5	7.7	7.0	8.5	Broughton, Don
29-0149	WEST DEAD	201	9	18.7	18.0	20.0	Graham, Jim
29-0015	WILLIAMS (CRYSTAL)	201	7	19.9	17.0	21.0	Hudson, Dallas

Isanti County

LAKE ID	LAKE NAME	SITE	NS	MEAN	MIN	MAX	VOLUNTEERS
30-0107-01	BLUE (NORTH BAY)	201	7	4.3	2.5	5.5	Schunk, Vincent G.
30-0107-01	BLUE (NORTH BAY)	202	9	3.7	3.0	4.5	Drechsler, Tracy
30-0107-02	BLUE (SOUTH BAY)	202	9	5.9	3.5	8.5	Drechsler, Tracy
30-0043	FANNIE	202	1	2.0	2.0	2.0	Paulson, Lloyd
30-0043	FANNIE	203	2	3.0	2.5	3.5	Paulson, Lloyd
30-0136	GREEN	204	17	5.7	3.0	22.0	McLaughlin, Jim
30-0072	LONG	204	8	1.8	0.5	7.0	Dutkiewicz, DuWayne
30-0096	LORY (LOWRY)	201	4	4.3	2.0	7.5	Golly, Darell
30-0022	SKOGMAN	201	7	4.9	3.0	8.0	Bley, Sherrill
30-0135	SPECTACLE	203	5	11.0	9.5	12.5	Austin, Glenn A.

Itasca County

LAKE ID	LAKE NAME	SITE	NS	MEAN	MIN	MAX	VOLUNTEERS
31-0597	AMEN	201	12	15.4	12.5	18.0	LeDuc, F.L.
31-0305	ANN	202	14	6.4	4.5	7.5	Duszak, Mike
31-0349	ANTLER	201	6	14.2	13.0	14.5	Petrie, Gene
31-0259	BALSAM	201	6	10.3	10.0	11.0	Coil, Mark
31-0576	BASS	201	13	13.7	11.0	17.0	Axtell, Don
31-0576	BASS	202	6	12.2	10.5	13.5	Mutchler, Julie
31-0197	BATTLE	201	7	7.4	6.0	9.5	Blackmer, Lawrence
31-0058	BEATRICE	201	12	11.3	10.0	13.0	Gardner, Neil F.
31-0726	BELLO	201	6	10.3	9.0	11.5	Vojta, James
31-0017	BENGAL	201	5	13.1	11.0	15.0	Sinn, Terry
31-0656	BIG DICK	201	5	10.4	9.5	12.0	Knutson, Clayton J.
31-0210	BLACKBERRY	201	1	6.0	6.0	6.0	Reed, Rian H.
31-0395	BLUEWATER	202	16	18.9	14.0	24.0	Ellsworth, Nancy
31-0395	BLUEWATER	203	16	18.2	13.5	25.0	Klacan, George R.
31-0623	BOY	201	12	19.5	17.0	22.5	Ryan, Thomas
31-0069	BUCK	201	12	8.9	6.5	12.5	Maki, Charlotte
31-0069	BUCK	202	4	11.1	8.0	15.0	Walsh, Mike
31-0424	BURNT SHANTY	202	13	18.9	15.5	27.5	Simonson, Ken & Betty
31-0413	BURROWS	201	5	12.5	11.0	14.0	Pedrow, Paul
31-0620	CARIBOU	203	5	35.4	32.5	40.5	Uggla, Don
31-0620	CARIBOU	205	5	34.6	32.0	42.5	Uggla, Don
31-0749	CHASE	201	7	29.1	24.5	34.0	Farnham, Chris
31-0214	CLEARWATER (ROUND)	201	7	8.4	7.0	10.5	Reed, Rian H.

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Itasca County Continued

LAKE ID	LAKE NAME	SITE	NS	MEAN	MIN	MAX	VOLUNTEERS
31-0540	CLUBHOUSE	203	4	15.0	14.0	16.5	Lundquist, Erik
31-0356	COWHORN	201	3	2.3	2.0	2.5	Loegering, Perry C. & Shirley
31-0193	CROOKED	201	4	6.5	6.0	7.0	Pearson, Mary Jean
31-0857-01	CUT FOOT SIOUX	202	11	9.8	6.0	16.0	Tollenaar, Norm
31-0334	DEER	201	7	8.9	8.0	10.5	Carlson, Dennis M.
31-0719	DEER	206	4	15.1	13.5	17.0	Goracke, Earl E.
31-0719	DEER	209	7	14.9	13.5	18.0	Chatterton, David
31-0719	DEER	210	4	15.8	15.0	16.5	Ritzinger, George
31-0719	DEER	211	5	15.7	14.5	18.5	Ratzlaff, Joan
31-0921	DIXON	201	4	4.8	3.5	7.5	Lathrop, Dave
31-0882	DORA	201	15	9.7	8.0	11.5	Lacher, Richard G.
31-0221	DUNNING	201	4	20.3	19.5	21.5	Orf, D. Hestwood & Earl
31-0616	EAST SMITH	201	14	12.0	11.0	13.5	Hugdahl, Tom
31-0497	FIFTH CHAIN LAKE (GUNN)	201	11	12.8	9.5	17.0	Maschwitz, David
31-0183	FIVE ISLAND	201	8	11.9	10.0	15.8	Brewer, Jim
31-0624	GRAVE	201	12	13.9	10.0	18.0	Ryan, Thomas
31-0624	GRAVE	202	7	11.9	10.0	15.0	Rime, Hal
31-0492	GUM (THIRD CHAIN, GUNN)	201	11	13.1	10.0	16.5	Maschwitz, David
31-0782	GUNDERSON	201	2	14.5	13.0	16.0	David, Rachelle
31-0782	GUNDERSON	202	2	13.3	12.0	14.5	David, Rachelle
31-0452	GUNN (SOUTH LAKE)	201	6	15.0	12.0	17.0	Gronberg, Wally
31-0452	GUNN (SOUTH LAKE)	201	11	14.1	10.5	18.0	Maschwitz, David
31-0373	HALE	201	14	16.1	13.5	18.0	Erickson, Vern
31-0361	HALE (HAY)	201	15	10.7	8.0	14.0	Libbey, Richard K.L.
31-0020	HART	201	9	9.7	8.0	12.0	Friedbauer, Allan
31-0154	HARTLEY	201	8	9.1	8.5	9.5	Hartman, Bruce
31-0696	HORSESHOE	202	7	11.1	10.0	11.5	Olsen, Ronnie
31-0254	IAASAC	201	15	14.1	12.0	16.0	Erickson, Bob
31-0913	ISLAND	205	13	8.2	6.0	12.0	Luadtke, William
31-0657-01	JACK THE HORSE (N.)	201	10	17.0	16.5	17.0	Dobihal, Charles C.
31-0786	JESSIE	203	16	9.4	4.5	16.0	Nelson, Bill
31-0586	JOHNSON	202	15	14.6	12.0	16.0	Hendrickson, Bud
31-0231	LAWRENCE	201	8	4.7	4.0	6.0	Peters, Walter
31-0758	LITTLE BOWSTRING	201	12	8.4	3.5	17.0	Ford, Norman
31-0198	LITTLE COWHORN	201	3	3.7	2.0	6.5	Loegering, Perry C. & Shirley
31-0621	LITTLE DEAD HORSE	201	6	14.1	12.8	15.5	Johnson, Dennis
31-0613	LITTLE LONG	203	8	16.8	15.0	21.0	Buck, Virgil
31-0610	LITTLE MOOSE	202	3	7.7	5.0	9.5	Skallman, Dean V.
31-0093	LITTLE SAND	202	9	9.9	8.0	11.0	Kujala, Eli
31-0394	LITTLE TROUT	202	11	20.8	17.5	25.0	Oberg, Paul
31-0399	LITTLE WABANA	202	11	18.0	14.0	21.5	Adams, Cheryl
31-0266	LONG	202	10	5.4	4.0	6.0	Hall, Curtis
31-0571	LOON	201	6	13.3	11.5	15.0	Hansen, Norley
31-0759	MAKI	201	10	16.1	12.0	22.0	Ford, Norman
31-0585	MCAVITY (CROOKED)	201	5	15.9	14.0	17.0	Olson, Nancy
31-0078	MCGUIRE	201	8	4.6	3.5	6.0	Norton, Art
31-0722	MOOSE	202	11	14.5	9.5	19.0	Christensen, Marty
31-0290	NAPOLEON	203	3	14.3	13.5	15.5	Askew, Wiley
31-0877	NATURES (SQUAW)	202	5	8.3	8.0	9.0	Hurley, Jack
31-0877	NATURES (SQUAW)	203	5	7.3	6.0	8.0	Hurley, Jack

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Itasca County Continued

LAKE ID	LAKE NAME	SITE	NS	MEAN	MIN	MAX	VOLUNTEERS
31-0653	NORTH STAR	205	7	10.9	9.5	14.0	Dittberner, Duane
31-0339	PICKEREL	201	9	8.3	7.5	9.5	Stensrud, Homer
31-0532-01	POKEGAMA (MAIN BASIN)	202	6	18.7	13.0	22.0	Giddings, Bob & Tom
31-0532-01	POKEGAMA (MAIN BASIN)	204	6	18.2	12.0	23.0	Giddings, Bob & Tom
31-0532-01	POKEGAMA (MAIN BASIN)	205	6	17.8	13.0	22.5	Giddings, Bob & Tom
31-0532-01	POKEGAMA (MAIN BASIN)	206	5	14.0	12.0	17.5	Bonner, Jack
31-0532-01	POKEGAMA (MAIN BASIN)	208	14	17.6	11.5	23.5	Davis, Pat
31-0532-01	POKEGAMA (MAIN BASIN)	214	6	16.0	11.5	20.5	Lorenz, Dave
31-0532-01	POKEGAMA (MAIN BASIN)	215	5	13.1	12.0	14.0	Bonner, Jack
31-0532-01	POKEGAMA (MAIN BASIN)	216	5	13.1	11.5	15.0	Bonner, Jack
31-0532-01	POKEGAMA (MAIN BASIN)	217	5	13.9	12.0	17.5	Bonner, Jack
31-0532-02	POKEGAMA (WENDIGO)	203	10	13.6	11.5	15.5	Hoshal, Wayne
31-0384	PRAIRIE	201	6	5.2	4.5	5.5	Kleinert, Jeff
31-0284	RADDISON	201	4	12.4	12.0	13.0	Farmer, Chris
31-0717	RICE	204	5	13.7	11.0	17.0	Goeman, Tim & Julie
31-0896	ROUND	201	14	6.4	3.0	10.0	Howard, Richard
31-0209	ROUND (CLEAR)	201	7	10.4	6.0	12.0	Reed, Janis Y.
31-0438	SAND	201	13	18.2	14.0	20.5	Altobelli, Ione
31-0826	SAND	202	10	9.8	7.5	13.0	Smith, Dave
31-0345	SCRAPPER (WILSON)	201	4	9.1	8.5	9.5	Fortner, Larry
31-0084	SHALLOW	200	5	14.3	12.5	16.0	Ranta, Archie
31-0554	SISEEBAKWET (SUGAR)	203	15	13.7	10.0	21.0	Stenerson, Dick
31-0554	SISEEBAKWET (SUGAR)	214	11	13.0	9.0	21.5	Olson, Don
31-0547	SMITH	201	3	6.7	5.5	8.5	Loegering, Perry C. & Shirley
31-0255	SNAPTAIL	201	7	12.1	10.5	14.0	Hupila, Alvar E.
31-0003	SOUTH STURGEON	201	10	4.7	3.0	6.0	Leschak, Pete
31-0555	SOUTH SUGAR	201	8	14.8	14.0	16.0	Sandeen, Dan
31-0191	SOUTH TWIN	204	10	12.3	9.0	15.5	Appelget, Tony
31-0538	SPIDER	203	15	8.8	5.5	13.5	Swenson, Glen R.
31-0353	SPLIT HAND	203	14	5.0	3.5	8.0	Winkler, Greg
31-0124	SUCKER	202	8	6.1	3.5	7.0	Ross, Anthony
31-0067-02	SWAN (MAIN BASIN)	201	9	15.3	11.5	18.5	Mattson, Lou
31-0067-02	SWAN (MAIN BASIN)	202	9	15.5	11.5	18.5	Mattson, Lou
31-0067-02	SWAN (MAIN BASIN)	203	9	14.0	8.5	19.0	Mattson, Lou
31-0067-02	SWAN (MAIN BASIN)	204	9	13.1	9.0	17.5	Mattson, Lou
31-0067-02	SWAN (MAIN BASIN)	205	5	10.1	8.5	13.5	Weiss, Holly
31-0067-01	SWAN (WEST BAY)	201	9	10.1	6.0	15.0	Mattson, Lou
31-0127	TRESTLE	201	6	12.0	11.5	13.0	Adamson, Jack
31-0216	TROUT	202	9	17.7	10.5	26.0	Heltemes, Don
31-0410	TROUT	202	9	21.9	18.5	26.0	Berg, William E.
31-0410	TROUT	203	9	18.0	13.5	23.0	Berg, William E.
31-0410	TROUT	204	7	17.2	12.5	24.0	Berg, William E.
31-0216	TROUT	205	5	19.5	15.0	24.0	Karppi, William
31-0410	TROUT	205	8	16.6	12.5	20.0	Berg, William
31-0216	TROUT	206	9	16.7	11.5	25.0	Heltemes, Don
31-0216	TROUT	207	10	15.3	10.5	21.0	Hecimovich, Darrel
31-0725	TURTLE (BIG TURTLE)	201	13	17.3	16.5	18.5	Hagen, Owen A.
31-0725	TURTLE (BIG TURTLE)	202	7	15.6	15.5	16.5	Stretton, Ann & Bill
31-0725	TURTLE (BIG TURTLE)	205	8	14.8	13.0	18.0	Dziuk, Dr. Harold
31-0725	TURTLE (BIG TURTLE)	206	3	15.2	13.5	17.5	Swanson, Kris

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Itasca County Continued

LAKE ID	LAKE NAME	SITE	NS	MEAN	MIN	MAX	VOLUNTEERS
31-0392	WABANA	201	13	16.7	13.0	19.0	Koewler, Dennis & Jean
31-0392	WABANA	202	10	19.0	14.5	22.5	Miner, Sherry
31-0392	WABANA	205	9	17.7	15.5	19.0	Lick, Susan
31-0392	WABANA	206	16	17.8	15.0	20.5	Zimmer, Kenneth
31-0392	WABANA	207	7	18.1	14.5	21.0	Miner, Sherry
31-0298	WALTERS	201	6	7.8	6.0	11.5	Comstock, Maurice
31-0260	WHITE SWAN	201	1	11.5	11.5	11.5	Schloesser, Larry

Jackson County

LAKE ID	LAKE NAME	SITE	NS	MEAN	MIN	MAX	VOLUNTEERS
32-0022	CLEAR	202	6	1.5	1.0	2.5	Pribyl, David
32-0018	FISH	203	6	3.5	2.0	6.0	Pribyl, David
32-0024	LITTLE SPIRIT	201	6	2.0	1.0	4.5	Pribyl, David
32-0020	LOON	201	6	1.1	0.5	1.5	Pribyl, David

Kanabec County

LAKE ID	LAKE NAME	SITE	NS	MEAN	MIN	MAX	VOLUNTEERS
33-0040	ANN	202	4	3.6	2.5	6.0	Anderson, Tim
33-0040	ANN	203	2	2.0	1.5	2.5	Coplan, Terry
33-0040	ANN	204	2	2.0	1.5	2.5	Coplan, Terry
33-0040	ANN	205	2	2.4	2.3	2.5	Coplan, Terry
33-0033	DEVILS	202	5	3.9	3.0	5.5	Brothen, Suzanne
33-0028	KNIFE	201	6	2.8	1.5	4.5	Schmeltzer, Don
33-0028	KNIFE	204	6	3.0	1.5	6.0	Schmeltzer, Don
33-0028	KNIFE	205	4	3.4	2.0	6.0	Schmeltzer, Don
33-0028	KNIFE	206	6	3.4	3.0	4.5	Schmeltzer, Don
33-0032	LEWIS	201	10	6.2	5.0	7.0	Shimshock, Mary
33-0032	LEWIS	202	10	5.3	4.0	6.0	Shimshock, Mary
33-0009	POMROY	202	6	5.8	4.5	7.0	Haertzen, Dennis
33-0015	QUAMBA	202	15	2.4	1.5	4.5	Kieffer, Dennis
33-0015	QUAMBA	203	4	2.4	1.5	4.0	Peterson, Wayne L.
33-0015	QUAMBA	204	4	2.5	1.5	4.5	Peterson, Wayne L.

Kandiyohi County

LAKE ID	LAKE NAME	SITE	NS	MEAN	MIN	MAX	VOLUNTEERS
34-0206	ANDREW	205	11	9.0	7.5	12.0	Taunton, Tom
34-0086	BIG KANDIYOHI	204	6	2.8	1.5	6.0	Furr, Tim
34-0086	BIG KANDIYOHI	205	6	2.9	2.0	5.0	Furr, Tim
34-0032	CARRIE	201	10	3.1	2.5	4.1	Lehmbecker, Gene
34-0158-04	CROW RIVER MILL POND (MIDDLE BAY)	201	9	6.7	5.5	8.5	Beck, Loren
34-0044	DIAMOND	204	7	5.6	2.5	14.5	Gilmer, Jon
34-0044	DIAMOND	205	3	13.2	13.0	13.5	Deadrick, Tom
34-0044	DIAMOND	206	3	5.4	3.0	7.1	Schultz, Bill
34-0171	EAGLE	202	16	7.6	4.5	14.5	Eagle Lake, Assoc.
34-0022-02	ELIZABETH (MAIN LAKE)	202	4	3.3	1.5	7.0	Engelby, Loren
34-0217	FLORIDA	203	5	9.8	6.5	13.0	Del, Brouwer
34-0181	FOOT	201	10	3.6	2.5	6.0	Gieseke, Marvin
34-0181	FOOT	202	6	4.9	3.0	9.5	Haines, John
34-0224	GAMES	202	10	8.2	5.0	10.0	Bosch, Doug & Barb

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Kandiyohi County Continued

LAKE ID	LAKE NAME	SITE	NS	MEAN	MIN	MAX	VOLUNTEERS
34-0142	GEORGE	201	12	12.1	8.0	17.5	Howell, Norman
34-0079	GREEN	201	8	14.7	10.5	19.0	Wacholz, Marlyn
34-0079	GREEN	202	8	14.0	11.0	19.0	Wacholz, Marlyn
34-0079	GREEN	203	8	13.8	11.0	18.0	Wacholz, Marlyn
34-0079	GREEN	208	8	13.6	10.5	18.0	Wacholz, Marlyn
34-0066	LONG	201	6	10.6	7.3	14.5	Zink, Larry
34-0066	LONG	202	6	11.2	8.0	16.0	Zink, Larry
34-0192	LONG	202	9	3.6	1.2	6.5	Swanson, Tim
34-0066	LONG	203	7	16.3	10.5	25.0	Knudsen, Kyle
34-0192	LONG	203	9	3.9	2.5	6.5	Swanson, Tim
34-0192	LONG	204	9	3.6	1.5	6.0	Swanson, Tim
34-0154	NEST	204	9	6.8	4.0	16.0	Lovold, Dean
34-0251	NORWAY	201	8	3.9	2.0	6.5	Kaye, John
34-0251	NORWAY	202	12	2.6	2.0	4.5	Yeo, Greg & Rhett
34-0251	NORWAY	203	9	5.0	2.0	9.0	Torison, George
34-0251	NORWAY	204	11	6.9	2.5	20.0	Packer, Marvin
34-0062	UNNAMED (CALHOUN)	201	14	4.9	4.0	8.5	Wensman, Tim
34-0062	UNNAMED (CALHOUN)	202	9	4.8	3.5	8.0	Johnson, Ron
34-0169-03	WAKANDA (MAIN BAY)	201	15	0.6	0.3	0.8	Druskin, Marilee F.

Lake County

LAKE ID	LAKE NAME	SITE	NS	MEAN	MIN	MAX	VOLUNTEERS
38-0365	AHMAKOSE	201	1	22.5	22.5	22.5	Outward Bound, Voyaguer's
38-0516	AHSUB	201	1	20.5	20.5	20.5	Sullivan, Jason
38-0330	ALICE	202	1	10.0	10.0	10.0	Lanik, Don
38-0502	ASHIGAN	201	1	25.0	25.0	25.0	Outward Bound, Voyageur's
38-0637	BALD EAGLE	201	1	8.5	8.5	8.5	Outward Bound, Voyageur's
38-0532	BIRCH	201	1	13.5	13.5	13.5	Outward Bound, Voyageur's
38-0140	BOULDER	201	1	13.5	13.5	13.5	Outward Bound, Voyageur's
38-0510	CATTYMAN	201	1	7.5	7.5	7.5	Outward Bound, Voyageur's
38-0488	DISAPPOINTMENT	201	1	13.0	13.0	13.0	Sullivan, Jason
38-0187	EDDY	201	1	19.0	19.0	19.0	Outward Bound, Voyageur's
38-0187	EDDY	202	1	17.0	17.0	17.0	Tegeder, Mike
38-0498	ENSIGN	206	1	11.3	11.3	11.3	Outward Bound, Voyageur's
38-0779	FARM	202	10	6.3	5.0	8.0	Lenartz, John
38-0779	FARM	203	11	4.9	4.5	5.5	Behnke, Gene
38-0779	FARM	204	11	7.6	7.0	8.5	Behnke, Gene
38-0528	FOUR	202	1	8.5	8.5	8.5	Lanik, Don
38-0813	FOURTOWN	204	2	8.0	8.0	8.0	Peterson, Charles
38-0813	FOURTOWN	204	1	8.5	8.5	8.5	O'Neill, Shelley
38-0094	FROND	201	1	8.5	8.5	8.5	Wojcicki, Isaac
38-0782	GARDEN	201	8	5.2	5.0	5.5	Mason, Bud
38-0782	GARDEN	202	8	5.1	4.5	5.5	Mason, Bud
38-0782	GARDEN	203	8	5.3	4.5	5.5	Mason, Bud
38-0508	GIBSON	201	1	13.3	13.3	13.3	Outward Bound, Voyageur's
38-0557	GROUSE	201	6	6.0	5.5	6.5	Brekke, Gary
38-0590	GULL	201	1	10.5	10.5	10.5	Outward Bound, Voyageur's
38-0792	HORSE	201	1	9.5	9.5	9.5	Stern, Willy

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Lake County Continued

LAKE ID	LAKE NAME	SITE	NS	MEAN	MIN	MAX	VOLUNTEERS
38-0400	IMA	201	1	10.0	10.0	10.0	Lanik, Don
38-0400	IMA	202	1	9.5	9.5	9.5	Outward Bound, Voyageur's
38-0400	IMA	203	1	10.3	10.3	10.3	Outward Bound, Voyageur's
38-0397	INSULA	200	1	8.0	8.0	8.0	Lanik, Don
38-0242	JOHNSON (WOLF)	201	14	11.4	9.5	14.5	Wolf Ridge, Env. Learning Ctr
38-0511	JORDAN	201	1	11.8	11.8	11.8	Outward Bound, Voyageur's
38-0070	KAWASACHONG	201	1	11.5	11.5	11.5	Verhagen, Ingrid
38-0080	KAWISHIWI	203	1	7.0	7.0	7.0	Lanik, Don
38-0188-01	KEKEKABIC POND 1	201	1	9.0	9.0	9.0	Outward Bound, Voyageur's
38-0188-02	KEKEKABIC POND 2	202	1	21.0	21.0	21.0	Outward Bound, Voyageur's
38-0108	KIVANIVA	203	1	8.0	8.0	8.0	Verhagen, Ingrid
38-0404	KNIFE	201	1	22.0	22.0	22.0	Tegeder, Mike
38-0404	KNIFE	202	1	22.5	22.5	22.5	Outward Bound, Voyageur's
38-0406	LAX	201	11	11.8	8.0	14.5	Linscheid, Jim
38-0703	LITTLE GABBRO	201	1	4.3	4.3	4.3	Outward Bound, Voyageur's
38-0090	MALBERG	201	1	8.0	8.0	8.0	Wojcicki, Anna
38-0644	MOOSE	201	1	10.0	10.0	10.0	Outward Bound, Voyageur's
38-0816	MOOSECAMP	201	1	9.5	9.5	9.5	Peterson, Charles
38-0605	ONE	201	1	9.5	9.5	9.5	Lanik, Don
38-0526	PARENT	201	1	15.5	15.5	15.5	Sullivan, Jason
38-0584	PIETRO (PICTRO)	201	1	9.0	9.0	9.0	Outward Bound, Voyageur's
38-0104	POLLY	202	1	6.0	6.0	6.0	Hathoway, Kate
38-0104	POLLY	203	1	5.4	5.4	5.4	Hathoway, Kate
38-0104	POLLY	204	1	6.0	6.0	6.0	Lanik, Don
38-0613	ROCK ISLAND	201	1	4.5	4.5	4.5	Outward Bound, Voyageur's
38-0225	SAGUS	201	1	10.5	10.5	10.5	Outward Bound, Voyageur's
38-0786	SANDPIT	201	1	16.5	16.5	16.5	Outward Bound, Voyageur's
38-0786	SANDPIT	202	1	18.0	18.0	18.0	Stern, Willy
38-0778	SOUTH FARM	201	10	5.4	4.5	7.0	Lenartz, John
38-0531	SPLASH (LITTLE IRON)	201	1	11.5	11.5	11.5	Outward Bound, Voyageur's
38-0744	STEWART	202	6	10.1	9.0	11.0	Starr, Linda
38-0530	SUCKER	201	1	14.5	14.5	14.5	Outward Bound, Voyageur's
38-0351	THOMAS	202	1	16.1	16.1	16.1	Outward Bound, Voyageur's
38-0600	THREE	201	1	9.0	9.0	9.0	Lanik, Don
38-0785	TIN CAN MIKE	201	1	11.5	11.5	11.5	Outward Bound, Voyageur's
38-0785	TIN CAN MIKE	202	1	12.5	12.5	12.5	Stern, Willy
38-0724	TOFTE	203	1	12.5	12.5	12.5	Outward Bound, Voyageur's
38-0490	TRADER	201	1	7.5	7.5	7.5	Outward Bound, Voyageur's
38-0715	TRIANGLE	200	1	12.3	12.3	12.3	Outward Bound, Voyageur's
38-0608	TWO	201	1	9.5	9.5	9.5	Lanik, Don
38-0491	VERA	201	1	20.5	20.5	20.5	Outward Bound, Voyageur's
38-0047	WILSON	201	6	15.4	12.5	17.5	Kingston, Tom & Mary

Lake of the Woods County

LAKE ID	LAKE NAME	SITE	NS	MEAN	MIN	MAX	VOLUNTEERS
39-0002-02	LAKE OF THE WOODS(4 MI BAY)	201	6	3.8	2.5	4.5	Nelson, LeRoy O.

Legend

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Le Sueur County

LAKE ID	LAKE NAME	SITE	NS	MEAN	MIN	MAX	VOLUNTEERS
40-0092-01	EAST JEFFERSON	205	7	3.8	2.5	7.0	Geldner, Ryann
40-0124	EMILY	201	5	3.2	2.0	4.0	Hausenbauer, Tom
40-0051	FISH	201	12	15.0	10.0	25.0	Roessler, Charles & Genevieve
40-0057	FRANCES	202	4	8.9	6.5	12.5	Houlihan, Dan
40-0063	GERMAN	202	10	5.3	3.0	13.0	Clemen, Julie
40-0063	GERMAN	205	7	3.7	2.0	9.0	Geldner, Ryann
40-0092-04	MIDDLE JEFFERSON	204	8	2.1	1.0	6.5	Nerison, Larry
40-0056	RAYS (CHARLES)	201	5	5.7	1.5	11.5	Klages, Tim
40-0002	SAKATAH (UPPER)	201	11	5.3	1.5	12.5	Chromy, Harold
40-0092-03	SWEDE'S BAY	204	10	1.6	0.5	4.0	Gardner, Doug
40-0031	TETONKA	201	16	4.9	1.5	13.0	Wangen, Roy
40-0031	TETONKA	204	16	5.2	2.0	15.0	Wangen, Roy
40-0031	TETONKA	205	15	5.3	2.0	13.0	Schwake, Gene & Bonnie
40-0031	TETONKA	206	15	6.3	2.0	14.0	Schwake, Gene
40-0117	WASHINGTON	203	17	6.6	3.5	11.0	Schwarck, Greg
40-0117	WASHINGTON	205	6	5.4	2.0	14.0	Riessen, Reinhard
40-0117	WASHINGTON	206	8	2.2	1.0	6.0	Venjohn, Larry
40-0117	WASHINGTON	207	6	5.3	1.5	10.0	Engels, Greg
40-0117	WASHINGTON	208	8	2.4	1.5	6.0	Venjohn, Larry
40-0117	WASHINGTON	209	8	2.4	1.5	6.0	Venjohn, Larry
40-0092-02	WEST JEFFERSON	201	9	2.0	1.0	4.5	West, Warren (Buster)
40-0092-02	WEST JEFFERSON	202	9	1.9	1.0	4.5	West, Warren (Buster)
40-0092-02	WEST JEFFERSON	203	9	1.9	1.0	3.5	West, Warren (Buster)
40-0092-02	WEST JEFFERSON	204	9	2.0	1.0	6.0	West, Warren (Buster)

Lincoln County

LAKE ID	LAKE NAME	SITE	NS	MEAN	MIN	MAX	VOLUNTEERS
41-0043	BENTON	202	13	2.5	2.0	3.0	Gruhot, Ed
41-0043	BENTON	203	13	2.5	2.0	3.0	Gruhot, Ed
41-0043	BENTON	204	13	2.5	2.0	3.0	Gruhot, Ed
41-0021	DEAD COON	201	8	1.4	1.0	2.0	Madsen, Ron

Lyon County

LAKE ID	LAKE NAME	SITE	NS	MEAN	MIN	MAX	VOLUNTEERS
42-0014	COTTONWOOD	202	14	2.3	1.5	3.0	Wiesen, Dave

McLeod County

LAKE ID	LAKE NAME	SITE	NS	MEAN	MIN	MAX	VOLUNTEERS
43-0073	HOOK	201	10	1.3	0.5	2.5	Bombeck, Jim
43-0073	HOOK	202	6	1.7	1.0	3.5	Pendergast, Butch
43-0034	SILVER	202	6	4.7	1.5	8.5	Dalbec, Jake

Mahnomen County

LAKE ID	LAKE NAME	SITE	NS	MEAN	MIN	MAX	VOLUNTEERS
44-0001	ROY (SIMON)	202	13	8.1	6.5	10.0	Brown, Richard
44-0045	SNIDER	201	10	12.5	8.5	17.0	Sahli, Roger & Ginny
44-0014	SOUTH TWIN	202	4	9.5	7.8	11.8	Kjelbertson, Everett
44-0003	TULABY	201	4	9.5	6.0	14.0	Lake Association, Tulaby

Legend

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Martin County

LAKE ID	LAKE NAME	SITE	NS	MEAN	MIN	MAX	VOLUNTEERS
46-0030	BUDD	202	12	5.7	2.0	15.0	Segar, David
46-0109	FOX	203	12	2.8	2.0	3.5	Peters, Ken
46-0020	SOUTH SILVER	201	10	3.4	2.0	6.0	Senenfelder, Gloria & Jim
46-0020	SOUTH SILVER	202	10	3.8	2.5	6.0	Senenfelder, Gloria & Jim
46-0020	SOUTH SILVER	203	11	4.0	2.5	10.5	Hand, Ernest

Meeker County

LAKE ID	LAKE NAME	SITE	NS	MEAN	MIN	MAX	VOLUNTEERS
47-0042	BETTY (BETSY)	200	10	3.0	1.5	7.5	Saukkola, George
47-0038	BIG SWAN	201	6	3.7	2.5	5.0	Koehnen, Wayne
47-0038	BIG SWAN	202	6	4.4	2.5	8.0	Koehnen, Wayne
47-0095	CLEAR	202	16	2.6	1.5	4.5	Brandenburg, Richard
47-0002	FRANCIS	201	13	7.0	4.5	11.0	Knox, Brian
47-0002	FRANCIS	202	13	7.7	4.0	12.5	Knox, Brian
47-0002	FRANCIS	202	11	7.1	5.5	11.0	LaChance, Frank
47-0177	LONG	202	17	0.8	0.7	1.2	Hanson, Roger
47-0050	MANUELLA	201	17	7.6	5.0	12.5	Schwingler, Bob
47-0119	MINNIE-BELLE	204	6	11.4	9.5	15.0	Jensen, Rollie H.
47-0088	RICHARDSON	201	21	2.4	1.0	4.0	Horwath, Gary
47-0032	SPRING	201	5	2.5	2.0	3.0	Scepaniak, David
47-0068	STELLA	201	12	7.5	4.0	12.0	Raabe, Henry E. (Hap)
47-0068	STELLA	202	14	6.5	4.0	14.0	Schuster, N. Jack

Mille Lacs County

LAKE ID	LAKE NAME	SITE	NS	MEAN	MIN	MAX	VOLUNTEERS
48-0002	MILLE LACS	209	3	12.0	11.0	13.0	Fritz, David
48-0002	MILLE LACS	213	9	12.3	8.0	17.0	Adair, Richard

Morrison County

LAKE ID	LAKE NAME	SITE	NS	MEAN	MIN	MAX	VOLUNTEERS
49-0079	ALEXANDER	201	6	18.1	12.0	26.5	Prozinski, Tony
49-0079	ALEXANDER	201	4	10.5	10.0	11.0	Schindele, Jim
49-0079	ALEXANDER	202	13	19.9	12.0	27.5	Simonet, Arthur
49-0079	ALEXANDER	204	5	18.8	17.0	20.0	Ness, Dale
49-0140	CEDAR	202	13	11.6	9.0	15.5	Drill, James
49-0133	CROOKNECK	202	10	9.8	6.5	11.0	Rabe, Adolph
49-0137	FISH TRAP	204	4	11.0	10.5	11.5	Schindele, Jim
49-0137	FISH TRAP	204	7	14.5	7.0	27.0	Fogelberg, Jim
49-0015	LONG	201	4	9.1	8.5	9.5	Steigauf, James E.
49-0024	PIERZ	203	13	7.4	4.3	9.5	Spiczka, Jim
49-0081	PINE	202	9	17.7	17.0	19.0	Stueve, Richard
49-0056	ROUND	202	8	11.4	9.5	13.5	Halverson, Wayne & Kathy
49-0127	SHAMINEAU	203	12	15.7	11.5	20.5	Doree, Alderic J.
49-0016	SULLIVAN	204	7	10.1	9.5	11.0	Haas, Dale & Sandy

Murray County

LAKE ID	LAKE NAME	SITE	NS	MEAN	MIN	MAX	VOLUNTEERS
51-0040	BLOODY	201	16	2.1	1.5	2.5	Sauer, Bill

Legend

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Nicollet County

LAKE ID	LAKE NAME	SITE	NS	MEAN	MIN	MAX	VOLUNTEERS
52-0001	UNNAMED (HALLET)	201	16	11.8	6.5	21.0	Olmanson, Trudi

Olmsted County

LAKE ID	LAKE NAME	SITE	NS	MEAN	MIN	MAX	VOLUNTEERS
55-0006	BAMBER	201	11	19.7	13.5	24.5	Stewart, Howard
55-0006	BAMBER	202	11	20.0	13.5	24.5	Stewart, Howard
55-0024-01	CASCADE (MAYO POND)	201	13	7.6	5.5	10.0	Loy, Robin
55-0024-02	CASCADE (N CENTRAL POND)	201	13	6.3	4.0	12.0	Loy, Robin
55-0024-03	CASCADE (S CENTRAL POND)	201	13	4.0	3.0	6.0	Loy, Robin
55-0025	MANOR WOODS POND	201	13	2.4	1.0	4.5	Loy, Robin
55-0003	SILVER	201	13	1.4	0.5	2.0	Frederickson, Mark W.
55-0004	ZUMBRO	201	4	8.9	7.5	12.5	McClanahan, Tim & Tyler
55-0004	ZUMBRO	207	8	6.4	3.5	8.0	Ward, Nicole

Otter Tail County

LAKE ID	LAKE NAME	SITE	NS	MEAN	MIN	MAX	VOLUNTEERS
56-0867	ALICE	201	3	1.2	1.0	1.5	Eisinger, Dr. Lawrence
56-0770	BASS	201	12	13.0	9.0	20.0	Anderson, Donald
56-1149	BERGER	201	6	5.4	4.0	9.0	Kalinoski, Van
56-0386-01	BIG MCDONALD	201	3	14.7	11.0	17.0	Brokke, Keith
56-0386-03	BIG MCDONALD #2	201	10	13.6	8.5	21.0	Borgerding, George
56-0130	BIG PINE	202	13	6.7	4.0	12.0	Taylor, George E.
56-0130	BIG PINE	204	10	5.6	3.0	11.0	Hermanson, Michael
56-0130	BIG PINE	205	13	6.8	4.0	13.0	Taylor, George E.
56-0130	BIG PINE	206	13	6.8	3.5	14.0	Taylor, George E.
56-0240	BLANCHE	202	7	12.3	8.5	18.5	Ramsey, Bill
56-0079	BLOCK	202	4	6.5	4.5	10.0	Konrad, Richard
56-0559	CLEAR	201	10	7.3	4.0	19.5	Perry, Donald A.
56-0559	CLEAR	202	5	3.5	3.5	3.5	Roubik, Bill
56-0238	CLITHERALL	207	6	14.1	12.5	16.5	Cummings, Gary
56-0749	CRYSTAL	202	14	10.3	8.0	14.0	Bertschi, Barb
56-0383	DEAD	205	11	12.0	8.0	20.0	Hansen, Les
56-0298	DEER	201	4	12.3	10.5	13.0	Long, Ray
56-0253	EAGLE	202	12	20.4	16.5	23.5	Beech, Jim
56-0116-02	EAST LEAF	202	8	7.9	4.5	15.5	Oppegard, Florene
56-0523	EAST LOON	201	16	9.4	5.5	11.5	Oehlerking, Richard
56-0523	EAST LOON	202	16	8.2	6.0	11.0	Oehlerking, Richard
56-0523	EAST LOON	203	16	12.0	7.0	17.5	Oehlerking, Richard
56-0378-01	EAST LOST (N. BAY)	202	5	13.0	11.5	14.0	Thiel, Albert
56-0378-01	EAST LOST (N. BAY)	203	5	12.8	11.0	14.0	Thiel, Albert
56-0306	ELBOW	201	4	17.8	16.0	19.0	Mauch, Jeff
56-0193	ETHEL	201	4	15.9	14.0	17.5	Behr, Scott & Laurie
56-0768	FISH	201	13	14.3	10.0	20.0	Carpenter, Roger F.
56-0357	FIVE	201	4	15.0	15.0	15.0	Hoff, Jackie
56-0639	INDIAN	201	12	6.5	5.0	12.0	Ario, H. Charles
56-1636	KERBS	201	4	18.5	16.5	19.8	Bauck, Fred
56-1636	KERBS	202	8	19.5	15.5	21.0	Stark, Charles
56-0651	LARSON	201	12	2.4	2.0	3.0	Ario, H. Charles
56-0532	LEEK (TROWBRIDGE)	201	4	11.1	7.0	17.5	Jahnke, Mike
56-0532	LEEK (TROWBRIDGE)	203	4	10.3	6.0	16.0	Jahnke, Mike

Legend

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Otter Tail County Continued

LAKE ID	LAKE NAME	SITE	NS	MEAN	MIN	MAX	VOLUNTEERS
56-0747-01	LIDA (MAIN BASIN)	207	7	10.1	6.0	16.0	King, Don
56-0747-02	LIDA (SOUTH ARM)	201	14	10.1	6.0	20.0	Spangler, Mike
56-0747-02	LIDA (SOUTH ARM)	202	14	10.1	6.0	20.5	Spangler, Mike
56-0761	LITTLE PELICAN	201	13	7.8	4.5	13.0	Manuel, Fred
56-0142	LITTLE PINE	201	3	5.8	5.5	6.0	Gunderson, Les & Jean
56-0142	LITTLE PINE	201	7	8.3	7.0	11.5	Maleitzke, Art
56-0142	LITTLE PINE	203	7	8.1	7.0	11.0	Maleitzke, Art
56-0142	LITTLE PINE	204	7	7.9	6.5	11.0	Maleitzke, Art
56-0390	LONG	201	16	9.2	7.5	12.0	Babcock, Chuck
56-0388	LONG	202	8	8.3	4.5	13.0	Bennett, Jerry
56-0243	MARION	205	16	13.3	9.5	24.0	Lysne, Duane
56-0243	MARION	206	16	10.2	5.5	17.0	Lysne, Duane
56-0116-01	MIDDLE LEAF	201	4	8.6	6.5	10.5	Anderson, Curt
56-0377	NAGEL (S. TURTLE)	201	7	14.4	11.0	18.0	Worum, Chuck
56-0242	OTTER TAIL	201	6	12.9	9.5	15.0	Sliper, Jeff
56-0242	OTTER TAIL	205	6	12.9	9.0	16.0	Hansen, Jim & Clara
56-0335	PAUL	201	16	20.6	16.5	26.0	Tolkinen, Erv
56-0786	PELICAN	207	9	12.3	9.5	15.5	Larsen, John C.
56-0475	PICKEREL	202	13	11.2	8.0	14.0	Falconer, Keith
56-0475	PICKEREL	203	13	11.1	7.5	14.0	Falconer, Keith
56-0475	PICKEREL	204	13	10.9	7.0	14.0	Falconer, Keith
56-0360	ROSE	202	6	12.1	10.5	14.5	Hogan, Stephanie
56-0358	SCALP (LAKE SEVEN)	201	7	20.9	19.0	24.5	Overland, Greg
56-0302-01	SILVER (1ST SILVER)	202	5	10.1	5.5	12.5	Matteson, John
56-0369	SIX	203	12	29.4	24.0	36.0	Greenough, Frank B. & Betty
56-0369	SIX	204	10	19.9	18.0	21.0	Jacobson, Lynelle
56-0437	STALKER	203	1	11.5	11.5	11.5	Grothe, Dennis
56-0385	STAR	201	11	14.8	11.5	17.5	Herron, Carolyn
56-0385	STAR	202	10	15.8	13.5	17.5	Sheldon, Gary
56-0385	STAR	204	8	13.5	11.0	18.8	Sheldon, Gary
56-0385	STAR	205	10	15.0	11.5	19.0	Herron, Carolyn
56-0191-01	STUART (MAIN BASIN)	202	10	13.4	8.0	22.0	Hofflander, Bob
56-0191-01	STUART (MAIN BASIN)	203	10	9.6	7.0	17.0	Hofflander, Bob
56-0781	SWAN	202	9	11.3	7.5	18.0	Wright, Grace
56-0387	SYBIL	201	9	18.6	16.5	24.0	Cruff, Gary L.
56-0387	SYBIL	202	9	18.2	16.0	24.0	Cruff, Gary L.
56-0387	SYBIL	203	9	18.6	16.5	25.0	Cruff, Gary L.
56-0931	TAMARAC	201	14	8.1	6.0	10.5	Nettestad, Thomas C. & Vickie
56-0613	TEN MILE	201	13	8.6	4.5	12.0	Westberg, Al
56-0658	WALL	203	9	9.4	5.0	18.0	Jungroth, Vernon
56-0658	WALL	204	9	8.6	4.5	19.0	Jungroth, Vernon
56-0239	WEST BATTLE	201	12	13.7	11.0	17.0	Thomas, Richard
56-0239	WEST BATTLE	202	12	13.8	10.5	19.5	Thomas, Richard
56-0239	WEST BATTLE	203	12	14.1	11.0	18.5	Thomas, Richard
56-0386-02	WEST MCDONALD	202	5	17.9	13.5	23.0	Condon, Kevin
56-0950-01	WEST OLAF	201	3	9.3	8.0	10.0	Maske, Joe

Legend

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Pine County

LAKE ID	LAKE NAME	SITE	NS	MEAN	MIN	MAX	VOLUNTEERS
58-0138	BIG PINE	201	8	5.9	3.0	7.5	Huber, Charles
58-0138	BIG PINE	202	6	5.6	3.5	8.0	Marnich, Paul J.
58-0129	LITTLE PINE	201	7	5.4	3.5	8.0	Scott, Mr. & Mrs. Glen
58-0135	MILLER	201	9	2.8	2.0	3.0	Dambowy, Joe
58-0038	NET	201	8	3.1	2.5	4.0	Ruud, David
58-0038	NET	202	3	2.5	2.5	2.5	Neumann, Mary
58-0048	OAK	202	5	6.6	3.5	8.5	Ecklund, Allen
58-0048	OAK	203	6	3.7	3.0	5.0	Wolf, Ron & Mikaela
58-0142	POKEGAMA	211	12	3.0	2.0	5.0	Royce, Charles & Pauline
58-0136	RHINE	201	11	3.4	1.8	4.5	Razskazoff, Don
58-0081	SAND	202	12	9.5	6.5	12.0	Olson, Tom & Joyce
58-0081	SAND	203	12	9.2	6.0	12.0	Olson, Tom & Joyce
58-0081	SAND	204	4	11.0	9.0	13.0	Dee, Pauline
58-0067	STURGEON	204	9	16.2	14.0	20.0	Schroeder, Harlan
58-0067	STURGEON	205	9	16.4	14.0	20.5	Schoreder, Harlan
58-0067	STURGEON	206	5	16.0	12.0	21.0	Goettsch, Ron
58-0067	STURGEON	207	5	16.3	13.0	21.0	Goettsch, Ron
58-0024	TAMARACK	201	13	20.2	16.0	26.0	Pearson, Debbie & Kim
58-0130	UPPER PINE	202	5	4.9	4.0	5.5	Gangl, Raymond

Polk County

LAKE ID	LAKE NAME	SITE	NS	MEAN	MIN	MAX	VOLUNTEERS
60-0305	MAPLE	201	8	4.8	2.0	11.0	McFarlin, Scott
60-0202	SARAH	203	7	8.6	7.0	11.5	Bailey, Jack
60-0217	UNION	201	10	8.9	7.0	10.5	Eide, Verna
60-0217	UNION	203	5	9.2	6.0	11.5	Weiler, Philip
60-0217	UNION	204	6	7.4	6.5	9.0	Bratrud, Doug
60-0139	UNNAMED (JEPSON)	201	8	12.9	12.0	14.0	Bergendahl, Ragnar

Pope County

LAKE ID	LAKE NAME	SITE	NS	MEAN	MIN	MAX	VOLUNTEERS
61-0064	AMELIA	201	4	10.6	7.5	15.0	Johnson, Maureen
61-0122	ANN	201	7	4.1	1.0	8.0	Howe, Mike
61-0072	GILCHRIST	201	16	4.5	2.5	14.5	Heimkes, Richard
61-0023	GROVE	204	3	5.9	5.1	6.8	N Fork Crow, River Watershed Dist
61-0092	HOFF	201	4	7.9	6.0	10.5	Swartz, Greg
61-0066	LEVEN	203	6	4.9	3.0	11.0	Brown, Bruce
61-0060	MARLU	201	16	6.0	2.5	10.0	Morton, John
61-0130	MINNEWASKA	208	6	6.1	5.0	10.0	Jones, Robert
61-0130	MINNEWASKA	209	12	7.5	4.0	14.5	Walters, Steve
61-0130	MINNEWASKA	210	8	7.3	5.0	12.0	Jones, Robert C.
61-0130	MINNEWASKA	211	8	7.3	5.0	12.5	Jones, Robert C.
61-0130	MINNEWASKA	212	7	6.8	5.0	11.5	Jones, Robert
61-0111	PELICAN	203	8	6.4	4.0	16.0	Mueller, Robert
61-0111	PELICAN	204	11	6.2	3.0	14.0	Magnus, Doug
61-0111	PELICAN	205	11	5.8	3.5	12.5	Magnus, Doug
61-0078	RENO	201	5	8.6	5.5	17.0	Redman, Sandra
61-0041	SCANDINAVIAN	202	8	9.8	9.0	11.0	Nyhusmoen, Sid

Legend

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Ramsey County

LAKE ID	LAKE NAME	SITE	NS	MEAN	MIN	MAX	VOLUNTEERS
62-0002	BALD EAGLE	206	14	4.0	1.5	9.0	Doran, Mike
62-0002	BALD EAGLE	207	9	2.8	1.5	5.5	Mottl, Greg
62-0002	BALD EAGLE	208	12	3.1	1.8	6.5	Weber, Marty
62-0002	BALD EAGLE	209	9	4.7	1.5	10.5	Moore, Jim
62-0080	EMILY	201	10	4.9	1.5	10.0	Moller, Karlind T.
62-0095	EVERGREEN PNDS (KERRY)	201	4	4.8	4.0	5.0	Nees, Terry
62-0007	GERVAIS	203	7	5.9	3.5	10.5	Petersen, Jonathan
62-0007	GERVAIS	205	3	3.8	2.5	4.8	Hoff, Jackie
62-0078	JOHANNA	202	4	4.3	3.5	4.5	Gilbert, Caroline
62-0078	JOHANNA	203	4	4.4	3.5	5.0	Gilbert, Caroline
62-0057	JOSEPHINE	202	12	6.9	4.5	11.0	Kucera, Emil
62-0049-02	LANGTON (SOUTH)	201	1	4.0	4.0	4.0	Ternes, David J.
62-0054	MCCARRON	202	11	11.0	9.0	15.0	McCarron, Karlee
62-0056	OWASSO	204	13	3.0	2.0	7.5	Hermes, Mike
62-0056	OWASSO	205	13	2.8	2.0	6.0	Hermes, Mike
62-0056	OWASSO	206	13	2.9	2.0	7.5	Hermes, Mike
62-0056	OWASSO	206	7	4.4	2.0	11.0	Terry, Bob
62-0056	OWASSO	207	13	3.0	2.0	7.5	Hermes, Mike
62-0056	OWASSO	208	13	2.8	1.5	7.0	Hermes, Mike
62-0056	OWASSO	209	13	2.9	2.0	7.0	Hermes, Mike
62-0056	OWASSO	210	13	2.6	2.0	4.5	Hermes, Mike
62-0056	OWASSO	211	4	5.1	4.3	5.5	Peterson, Carrie
62-0056	OWASSO	212	4	4.8	4.1	5.1	Peterson, Carrie
62-0056	OWASSO	213	6	3.2	2.3	5.5	Bester, Joe
62-0056	OWASSO	214	10	2.8	2.0	5.0	Foss, Megan & Matt
62-0046	PLEASANT	203	6	8.0	4.5	15.0	Kellin, R. Scott
62-0036	PRIEBE	202	3	1.8	1.0	2.5	Wilson, Scott A.
62-0001	SILVER	202	12	7.7	5.0	14.0	Anderson, Paul
62-0083	SILVER	204	7	2.6	1.0	3.5	Sausser, Patti
62-0073	SNAIL	201	14	9.0	6.0	14.0	Fox, Roger
62-0073	SNAIL	202	14	8.6	6.0	13.0	Fox, Roger
62-0073	SNAIL	203	8	9.3	6.5	13.0	Sandberg, Frank
62-0061	TURTLE	207	8	6.4	4.5	8.0	Gross, Gregory S.
62-0061	TURTLE	208	3	6.5	5.0	7.5	Hall, Doug
62-0022	UNNAMED (TAMARACK)	201	6	1.2	0.5	2.5	Stewart, Shannon
62-0082	WABASSO	202	7	7.6	3.5	13.0	Newquist, Leonard

Redwood County

LAKE ID	LAKE NAME	SITE	NS	MEAN	MIN	MAX	VOLUNTEERS
64-0150	LAURA	201	17	3.6	2.5	5.0	Bernhardson, Marilyn
64-0150	LAURA	202	17	3.6	2.5	5.0	Bernhardson, Marilyn
64-0150	LAURA	203	17	3.6	2.5	5.0	Bernhardson, Marilyn

Rice County

LAKE ID	LAKE NAME	SITE	NS	MEAN	MIN	MAX	VOLUNTEERS
66-0008	CANNON	201	7	1.9	1.5	2.5	Luikens, Jan
66-0008	CANNON	208	7	2.4	1.5	3.5	Luikens, Jan
66-0052	CEDAR	206	9	3.9	2.0	8.0	Luehrs, Virgil
66-0052	CEDAR	207	9	3.6	2.0	6.0	Luehrs, Virgil
66-0052	CEDAR	208	9	3.7	2.0	6.5	Luehrs, Virgil

Legend

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Rice County Continued

LAKE ID	LAKE NAME	SITE	NS	MEAN	MIN	MAX	VOLUNTEERS
66-0052	CEDAR	209	9	3.7	1.5	9.0	Luehrs, Virgil
66-0027	CIRCLE	209	4	3.8	1.5	7.0	Miller & Wendy Anderson, Terry
66-0027	CIRCLE	210	4	1.6	0.5	2.5	Miller & Wendy Anderson, Terry
66-0014	DUDLEY	204	4	7.6	5.5	10.0	Jarvis, John
66-0029	FOX	203	14	4.0	1.5	9.0	Stratmoen, Lois
66-0029	FOX	206	14	4.3	2.0	9.5	Stratmoen, Lois
66-0038	FRENCH	201	7	3.6	2.0	9.0	Scott, Jane & Richard
66-0047	HUNT	207	9	3.9	1.0	10.5	Rabeneck, Beth
66-0015	KELLY	202	4	7.8	6.5	9.5	Jarvis, John
66-0018	ROBERDS	201	12	5.2	1.5	12.5	Tuma, Ted
66-0044	SAKATAH (LOWER)	201	11	3.5	2.0	6.5	Chromy, Harold
66-0055	SHIELDS	205	6	4.9	3.5	8.4	Elsen, Rick
66-0010	WELLS	201	4	2.9	2.0	5.0	Wagner, George

Saint Louis County

LAKE ID	LAKE NAME	SITE	NS	MEAN	MIN	MAX	VOLUNTEERS
69-0223	AGNES	201	1	11.0	11.0	11.0	Outward Bound, Voyageur's
69-0864	ASH	202	7	6.4	3.5	8.0	Maki, David
69-0041	BASSETT	201	12	10.0	7.5	12.0	Swanson, Ken
69-0089	BEAR TRAP	201	1	8.5	8.5	8.5	Outward Bound, Voyaguer's
69-0100	BOOT	201	1	5.5	5.5	5.5	Outward Bound, Voyageur's
69-0100	BOOT	202	1	6.3	6.3	6.3	O'Neill, Shelley
69-0100	BOOT	203	1	5.5	5.5	5.5	O'Neill, Shelley
69-1064	BOTTLE	201	1	5.5	5.5	5.5	Anstis, James
69-1064	BOTTLE	201	1	7.5	7.5	7.5	Outward Bound, Voyageur's
69-0128	BRIAR	201	7	4.6	3.0	6.5	Stanley, Charles E. & Barbara
69-0118	BURNTSIDE	201	8	24.0	19.0	29.0	Nyman, George
69-0118	BURNTSIDE	202	4	23.6	17.5	30.0	Plude, Walt
69-0118	BURNTSIDE	213	6	21.0	17.5	23.0	Bahnemann, David & Abbie
69-0114	CADOTTE	201	10	13.8	10.5	17.0	Miller, Wayne
69-0489	CARIBOU	201	4	7.0	6.5	7.5	Herman, Richard D.
69-0489	CARIBOU	202	4	7.5	7.0	8.5	Herman, Richard D.
69-0489	CARIBOU	203	4	6.9	5.5	8.0	Herman, Richard D.
69-0489	CARIBOU	204	4	6.8	6.5	7.0	Herman, Richard D.
69-0307	CLARK	201	1	17.5	17.5	17.5	Anstis, James
69-0277	CLEAR	201	12	12.5	11.0	14.0	Aldrich, Douglas L.
69-0523	DODO	201	9	14.6	12.0	19.0	Strum, Jerry
69-0285-01	EAGLES NEST #1	201	11	21.0	19.0	25.0	Gervais-Adkisson, Gloria
69-0285-03	EAGLES NEST #3	202	10	17.3	12.0	25.0	Rodorigo, Barbara
69-0285-03	EAGLES NEST #3	203	10	14.8	12.0	19.0	Rodorigo, Barbara
69-0285-03	EAGLES NEST #3	204	10	16.1	11.0	22.0	Rodorigo, Barbara
69-0285-03	EAGLES NEST #3	206	10	13.4	10.0	17.0	Rodorigo, Barbara
69-0285-03	EAGLES NEST #3	208	10	14.3	10.5	18.0	Rodorigo, Barbara
69-0218	EAGLES NEST #4	201	7	19.3	15.0	21.0	Bertelson, Glenn
69-0660	ELY	202	12	16.4	11.5	24.0	Nyhus, John
69-0565	ESQUAGAMA	201	13	6.6	5.0	8.0	Nyhus, John
69-0094	FAIRY	201	1	5.0	5.0	5.0	O'Neill, Shelley
69-0094	FAIRY	203	1	7.0	7.0	7.0	Outward Bound, Voyageur's
69-1306	GILBERT PIT	201	2	38.0	37.0	39.0	Steblay, Edward & Lee

Legend

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Saint Louis County Continued

LAKE ID	LAKE NAME	SITE	NS	MEAN	MIN	MAX	VOLUNTEERS
69-0092	GULL	201	1	7.0	7.0	7.0	Outward Bound, Voyageur's
69-0092	GULL	202	1	5.5	5.5	5.5	O'Neill, Shelley
69-0093	GUN	201	1	15.0	15.0	15.0	Outward Bound, Voyageur's
69-0093	GUN	203	1	11.0	11.0	11.0	O'Neill, Shelley
69-0299	HASSEL	201	1	5.5	5.5	5.5	Anstis, James
69-0654	HORSESHOE	201	6	6.3	4.0	8.0	Isaacson, Mark & Jamie
69-0343	HUSTLER	201	2	11.0	10.0	12.0	Outward Bound, Voyageur's
69-0121	IRON	201	1	13.8	13.8	13.8	Outward Bound, Voyageur's
69-0889	ISLAND	201	5	13.8	11.5	17.0	Kuryatnik, Steve & Helen
69-0889	ISLAND	202	6	14.8	13.0	17.0	Tuominen, Paul
69-0224	LAC LA CROIX	202	1	12.3	12.3	12.3	Outward Bound, Voyageur's
69-0513	LITTLE GRAND	201	16	17.3	14.0	21.0	Harvieux, Gina & Dan
69-0332	LITTLE HUSTLER (RUBY)	201	1	11.3	11.3	11.3	Outward Bound, Voyageur's
69-0760	LITTLE JOHNSON	201	6	7.0	6.0	7.5	Niemi, Ken & RosaLee
69-0066	LITTLE LONG	202	11	15.9	14.8	17.0	Yahnke, Curt & Rose Ann
69-0066	LITTLE LONG	203	7	18.4	16.5	19.5	Lindbeck, John
69-0732	LITTLE SAND	201	11	4.8	3.5	6.5	Thompson, Sue
69-0384	LITTLE SHELL	201	1	13.5	13.5	13.5	Outward Bound, Voyageur's
69-0653	LONG	202	16	9.2	5.5	17.5	Kishel, Thomas C.
69-0426	LOON	201	16	21.4	20.0	24.0	Baker, John
69-0426	LOON	203	16	19.1	17.0	21.0	Baker, John
69-0721	MAJESTIC	201	7	16.9	12.5	20.0	Bainter, Chuck
69-0700	MAPLE LEAF	203	18	8.4	7.5	9.5	Ebeling, Mrs. Ira
69-0116	MITCHELL	201	17	12.4	11.5	13.0	Fitzgerald, Francis
69-0091	MUDHOLE	201	1	4.5	4.5	4.5	Outward Bound, Voyageur's
69-0078	MUDRO	201	1	5.0	5.0	5.0	Stern, Willy
69-0693	NAMAKAN	202	20	10.6	8.0	13.0	Hanson, Herb
69-0075-01	NORTH HEGMAN	201	1	7.5	7.5	7.5	Gibson, Caron
69-0330	OYSTER	201	1	8.3	8.3	8.3	Outward Bound, Voyageur's
69-0007	PARADISE	201	8	7.0	5.5	8.5	Taraldsen, Theresa
69-0011	PEQUAYWAN	201	9	10.3	9.5	13.0	Mead, Scott Phyl & Forest
69-0011	PEQUAYWAN	202	3	13.3	13.0	13.5	Brooks, Dale
69-0011	PEQUAYWAN	203	3	16.5	15.0	18.5	Brooks, Dale
69-0932	PERCH	203	15	12.3	10.5	19.0	Labonte, Arden
69-0490	PIKE	201	10	14.3	10.5	17.0	Campbell, Peg
69-0490	PIKE	202	10	14.5	10.5	18.0	Campbell, Peg
69-0490	PIKE	203	10	13.1	9.5	15.0	Campbell, Peg
69-0848	PRAIRIE	204	10	5.2	4.3	6.0	Hallberg, Ken
69-0848	PRAIRIE	205	10	5.2	4.5	5.8	Hallberg, Ken
69-0848	PRAIRIE	206	10	4.7	3.0	6.0	Hallberg, Ken
69-0848	PRAIRIE	207	10	5.2	4.5	6.0	Hallberg, Ken
69-0694	RAINY	203	4	7.9	7.0	9.0	Anderson, Paul A.
69-0525	ROSE	201	14	12.6	11.0	14.0	Nyborg, Sean
69-0429	SABIN (EMBARRASS PIT)	201	7	46.8	35.0	54.0	Steblay, Edward & Lee
69-0736	SAND	204	3	8.8	7.0	12.0	Verbick, Ben
69-0617	SAND POINT	201	4	9.0	9.0	9.0	Cooley, Diane
69-0018	SCHAEFFER	201	8	8.6	6.5	10.0	Taraldsen, James
69-0546	SCHUBERT (EAST BASS)	201	12	7.8	7.5	8.0	Berndt, Steven
69-0230	SCHULTZ	203	7	17.8	13.5	23.0	Larson, Cheryl L.

Legend

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Saint Louis County Continued

LAKE ID	LAKE NAME	SITE	NS	MEAN	MIN	MAX	VOLUNTEERS
69-0069	SHAGAWA	201	16	11.4	8.0	15.0	Zabinski, Eugene W.
69-0069	SHAGAWA	203	8	12.6	9.0	17.0	Scheuer, Bob
69-0461	SHELL	201	1	6.5	6.5	6.5	Outward Bound, Voyageur's
69-0933	SIDE	202	5	10.8	10.0	11.0	Olson, Charles & Jaye
69-0519	SIDE (BOWMAN)	201	7	6.1	6.0	6.5	Fait, Thomas A.
69-0090	SINNEEG (THUNDER)	201	1	10.5	10.5	10.5	Outward Bound, Voyageur's
69-0111	SMITH	201	5	11.4	10.0	13.0	Bradbury, Carol
69-0075-02	SOUTH HEGMAN	201	1	8.0	8.0	8.0	Gibson, Caron
69-0129	SPRING	201	4	9.0	8.5	9.5	Stocco, Jeff
69-0206	STERLING	201	1	4.5	4.5	4.5	Outward Bound, Voyageur's
69-0529	STRAND	201	11	3.1	2.5	4.5	Rosenthal, Lois
69-0205	STUART	201	1	6.0	6.0	6.0	Outward Bound, Voyageur's
69-0939-01	STURGEON	202	10	12.5	11.0	13.5	Prusak, Michael
69-0104	SUNDAY	201	1	5.5	5.5	5.5	Outward Bound, Voyageur's
69-0235	SUNSHINE	201	10	20.3	19.0	24.0	Turner, Gary
69-0794	THIRTEEN	201	4	12.9	11.0	15.0	Swanson, Michael G.
69-0241	THOMPSON	201	8	5.5	5.0	6.0	Haney, Richard
69-0378	VERMILION	203	13	8.4	4.5	12.0	Lotz, Steven
69-0378	VERMILION	204	12	7.8	4.5	11.0	Lotz, Steven K.
69-0378	VERMILION	206	9	8.4	4.0	13.0	Marjanen, Karin & George
69-0378	VERMILION	210	3	9.7	6.0	12.0	Wullschleger, Richard
69-0378	VERMILION	211	3	10.5	9.0	12.0	Wullschleger, Richard
69-0378	VERMILION	218	5	9.3	6.5	13.5	Hintz, Mel & Ellen
69-0378	VERMILION	219	5	6.9	5.5	10.5	Hintz, Mel & Ellen
69-0378	VERMILION	221	4	10.4	10.0	11.0	Paulsen, Terri Lee
69-0030	WHITE	201	2	8.3	8.0	8.5	Bangsund, Bill
69-0030	WHITE	202	2	8.8	8.0	9.5	Bangsund, Bill
69-0192	WHITE FEATHER	201	1	4.5	4.5	4.5	Outward Bound, Voyageur's
69-0004	WHITE IRON	201	9	5.7	5.0	6.0	Pinckney, Robert
69-0004	WHITE IRON	202	9	6.5	6.2	7.0	Ajax, Sheldon
69-0375	WHITEFACE RESERVOIR	202	12	3.9	3.0	4.5	Steblay, Edward & Lee
69-0375	WHITEFACE RESERVOIR	205	10	3.6	3.0	4.0	Kopnick, Brian & Denese
69-0161	WOLF	201	5	9.8	8.5	10.5	Krebsbach, Sue & John
69-0434-02	WYNNE	202	11	6.4	5.0	7.5	Laugen, Joe

Scott County

LAKE ID	LAKE NAME	SITE	NS	MEAN	MIN	MAX	VOLUNTEERS
70-0019	HANRAHAN (HANREHAN)	202	3	5.2	3.5	7.5	Swan, Desiree & Phil
70-0009	KRENZ	201	3	14.7	14.0	15.0	Jorgensen, Holly
70-0026	LOWER PRIOR	203	9	5.3	4.5	9.0	Modders, J. Nick
70-0072	UPPER PRIOR	201	9	2.1	1.5	4.0	Modders, J. Nick
70-0072	UPPER PRIOR	202	17	5.8	2.0	12.5	Fourre, Frank
70-0072	UPPER PRIOR	203	10	2.0	1.5	3.0	Bergstrom, Kevin

Sherburne County

LAKE ID	LAKE NAME	SITE	NS	MEAN	MIN	MAX	VOLUNTEERS
71-0082	BIG	203	4	9.8	8.5	11.0	Smith, Sandy
71-0146	BRIGGS	205	10	3.6	2.0	7.0	Ernzer, Harry
71-0123	CAMP	201	10	8.9	5.5	13.0	Gill, Kathleen A.
71-0041	CANTLIN	201	13	7.7	6.0	9.0	Patten, Peggy

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Sherburne County Continued

LAKE ID	LAKE NAME	SITE	NS	MEAN	MIN	MAX	VOLUNTEERS
71-0055	ELK	202	10	2.4	1.0	5.5	McDevitt, Dean
71-0141	ELK (BIG ELK)	203	13	1.5	1.0	2.5	Tucker, Barbara
71-0016	FREMONT	201	14	1.9	0.5	3.5	Ward, Dennis
71-0016	FREMONT	202	14	2.3	1.0	5.0	Ward, Dennis
71-0016	FREMONT	203	14	2.2	1.0	5.0	Ward, Dennis
71-0145	JULIA	203	17	2.2	1.0	7.0	Fors, Paul
71-0159	LONG	201	10	9.1	7.0	10.5	Sickler, Raymond C.
71-0159	LONG	202	10	8.3	8.0	9.0	Sickler, Raymond C.
71-0013	ORONO	202	4	2.6	1.5	4.0	Plant, Patrick
71-0013	ORONO	204	4	2.6	1.5	4.0	Plant, Patrick
71-0013	ORONO	205	4	2.6	1.5	4.0	Plant, Patrick
71-0013	ORONO	206	4	2.6	1.5	4.0	Plant, Patrick
71-0147	RUSH	201	18	1.8	0.5	5.0	Munsterman, Walt
71-0040	SANDY	204	9	13.6	11.0	18.5	Heffron, Molly
71-0167	UNNAMED (ROUND)	201	12	15.1	11.0	18.0	Nawara, Sharon

Stearns County

LAKE ID	LAKE NAME	SITE	NS	MEAN	MIN	MAX	VOLUNTEERS
73-0190	BEAR	201	7	7.7	5.0	10.0	Greener, Glen
73-0159	BIG	201	17	5.0	4.0	8.0	Press, Joe
73-0106	BIG FISH	201	7	14.6	11.5	18.5	Peters, Matthew
73-0106	BIG FISH	202	12	11.4	9.0	14.5	Schnettler, Bill
73-0106	BIG FISH	203	7	12.1	11.5	13.5	Peters, Joe & Darlene
73-0102	BIG WATAB	201	18	17.6	15.5	20.5	Strobel, Joan & Mark
73-0102	BIG WATAB	202	23	18.3	15.0	20.5	Strobel, Joan & Mark
73-0088	BOLFING	202	9	4.8	2.0	12.5	Binsfeld, Joe
73-0133-01	CEDAR ISLAND (MAIN BAY)	205	8	4.5	2.5	15.5	Stewart, Mike
73-0006	CROOKED	201	11	13.0	12.5	13.5	Payne, Robert
73-0150	EDEN	202	4	8.0	3.0	15.0	Weller, Mike
73-0703	ELEVEN QUARRY	201	7	17.4	13.0	21.0	Stearns Co., Parks
73-0244	ELLERING (ELRINGS)	201	7	5.7	3.5	8.0	Wenker, Melissa
73-0055	GRAND	203	12	8.0	5.5	11.0	Lehner, Jake & Harriet
73-0055	GRAND	204	3	6.7	6.0	8.0	Ludwig, Paul
73-0233	KINGS	201	8	11.0	7.0	20.0	Herges, Peter
73-0233	KINGS	202	8	10.7	7.5	18.0	Herges, Peter
73-0086	KNAUS	203	9	2.1	1.5	3.0	Binsfeld, Joe
73-0200-02	KORONIS (MAIN BASIN)	202	3	5.9	3.3	8.8	Watershed District, N Fork Crow River
73-0200-02	KORONIS (MAIN BASIN)	209	5	12.3	10.0	14.0	Paster, Jim
73-0200-02	KORONIS (MAIN BASIN)	211	12	8.7	4.5	16.0	Ebent, Roland
73-0200-02	KORONIS (MAIN BASIN)	213	3	8.1	5.3	11.7	Watershed District, N Fork Crow River
73-0064	KRAEMER	201	12	4.6	3.5	6.0	Steffes, Bob
73-0097	KREIGHLE	201	10	17.0	14.0	20.5	Smith, Wes
73-0004	LONG	201	4	13.8	10.5	17.5	Hultgren, Mike
73-0004	LONG	202	11	12.9	12.5	13.5	Payne, Robert
73-0139	LONG	203	7	5.1	2.0	8.0	Spohn, Kenneth
73-0139	LONG	204	5	2.3	2.0	3.3	Ogrezovich, Rod & Jackie
73-0123	LOWER SPUNK	201	10	10.8	7.0	14.0	Ahles, Gerritt
73-0123	LOWER SPUNK	202	3	9.3	8.8	9.5	Johnson, Hugo
73-0123	LOWER SPUNK	203	3	9.2	9.0	9.5	Johnson, Hugo

Legend

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Stearns County Continued

LAKE ID	LAKE NAME	SITE	NS	MEAN	MIN	MAX	VOLUNTEERS
73-0215	MARIA	201	10	4.7	2.5	8.0	McCarthy, Arthur W.
73-0215	MARIA	202	5	3.2	2.5	4.0	McCarthy, Arthur W.
73-0701	MELROSE DEEP QUARRY	201	7	15.7	13.0	19.0	Stearns Co., Parks
73-0128	MIDDLE SPUNK	205	10	11.1	8.5	13.5	Tomlyanovich, Aletha
73-0147	NORTH BROWN'S	205	15	5.7	3.0	13.0	Dehler, Fred
73-0122	OCHOTTO	201	5	15.0	13.5	20.0	Voss, Carol
73-0118	PELICAN	202	15	11.8	7.5	18.5	Angulski, Chet
73-0118	PELICAN	203	16	13.1	7.0	25.0	Koopmeiners, Linus
73-0118	PELICAN	205	9	12.4	5.5	19.0	Lang, Joseph
73-0136	PINE	201	6	4.7	3.0	6.5	Petron, Mark
73-0144	PIRZ	200	13	8.2	3.3	13.7	Weber, Tom
73-0144	PIRZ	202	3	8.1	7.6	8.3	Watershed District, North Fork Crow River
73-0051	PLEASANT	203	15	9.8	6.0	13.0	Becker, Bill
73-0196	RICE	203	3	5.4	2.0	11.7	Watershed District, North Fork Crow River
73-0196	RICE	208	12	4.6	1.5	12.0	Karl, Dallas
73-0196	RICE	208	7	10.0	4.5	24.5	Skartvedt, Gary
73-0196	RICE	209	3	6.2	3.0	9.8	Watershed District, North Fork Crow River
73-0196	RICE	211	6	9.2	5.5	17.5	Vadner, Bob
73-0196	RICE	212	12	7.0	3.0	14.0	Karl, Dallas
73-0072	ROSSIER	201	15	5.1	3.0	8.0	Streng, Steve
73-0199	SAND	202	13	2.3	1.5	3.5	Bloch, Jim
73-0082	SCHNEIDER	202	9	5.4	3.0	11.0	Lingofelt, Barb
73-0035	SCHOOL SECTION	202	5	7.0	6.5	8.0	Eckman, Richard
73-0183	ST. ANNA	202	4	6.9	4.0	10.0	Hare, Robert
73-0249	SYLVIA	202	14	8.1	5.0	10.0	Spanier, Wendy
73-0138	TWO RIVERS	204	14	6.4	4.0	15.0	Martin, Bob
73-0138	TWO RIVERS	205	14	6.1	4.0	11.5	Martin, Bob
73-0117	UPPER SPUNK	201	12	9.0	5.5	13.5	Baker, John

Swift County

LAKE ID	LAKE NAME	SITE	NS	MEAN	MIN	MAX	VOLUNTEERS
76-0072	CAMP	201	4	4.8	3.5	6.5	Nemmers, Duane

Todd County

LAKE ID	LAKE NAME	SITE	NS	MEAN	MIN	MAX	VOLUNTEERS
77-0023	BIG SWAN	201	10	5.8	4.0	7.5	Palbicki, M.E.
77-0023	BIG SWAN	203	7	8.1	5.0	14.5	Johnson, Robert T.
77-0023	BIG SWAN	204	4	4.8	2.0	7.0	Grimli, Clarence
77-0046	COAL	201	16	7.7	6.0	11.0	Johnston, Rodger
77-0154	FAIRY	201	11	12.5	7.5	17.0	Tank, Loren
77-0128	HORSESHOE	201	7	8.9	7.0	12.0	McClellan, Patricia
77-0105	LATIMER	203	15	4.6	2.0	13.5	Swenson, Paul A.
77-0084-01	BIG BIRCH (NORTH BASIN)	203	11	9.0	6.0	17.0	Hinnenkamp, Holly
77-0084-01	BIG BIRCH (NORTH BASIN)	206	9	7.1	4.5	12.0	Grossman, Richard H.
77-0084-01	BIG BIRCH (NORTH BASIN)	214	9	6.9	4.5	11.0	Grossman, Richard H.
77-0084-01	BIG BIRCH (NORTH BASIN)	215	11	9.8	6.0	19.0	Hinnenkamp, Holly
77-0084-01	BIG BIRCH (NORTH BASIN)	218	9	6.8	5.0	11.0	Grossman, Richard H.

Legend

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Todd County Continued

LAKE ID	LAKE NAME	SITE	NS	MEAN	MIN	MAX	VOLUNTEERS
77-0084-01	BIG BIRCH (NORTH BASIN)	219	9	7.2	4.5	10.5	Grossman, Richard H.
77-0084-01	BIG BIRCH (NORTH BASIN)	225	11	9.2	6.0	18.0	Hinnenkamp, Holly
77-0084-02	BIG BIRCH (SOUTH BASIN)	202	13	10.8	6.5	16.5	Schiemann, Beth
77-0084-02	BIG BIRCH (SOUTH BASIN)	204	11	12.2	6.5	19.0	Price, Gary
77-0084-02	BIG BIRCH (SOUTH BASIN)	205	16	10.8	6.0	17.0	Dinndorf, Don A.
77-0084-02	BIG BIRCH (SOUTH BASIN)	207	11	12.1	6.5	17.5	Price, Gary
77-0084-02	BIG BIRCH (SOUTH BASIN)	210	14	11.7	7.0	17.0	Meyer, Glenn
77-0084-02	BIG BIRCH (SOUTH BASIN)	212	13	11.3	6.5	18.0	Schiemann, Beth
77-0084-02	BIG BIRCH (SOUTH BASIN)	213	16	10.7	6.0	17.0	Dinndorf, Don A.
77-0084-02	BIG BIRCH (SOUTH BASIN)	216	14	11.6	6.5	16.5	Meyer, Glenn
77-0084-02	BIG BIRCH (SOUTH BASIN)	217	14	11.5	6.5	16.5	Meyer, Glenn
77-0084-02	BIG BIRCH (SOUTH BASIN)	220	16	10.5	6.0	17.5	Osendorf, Robert
77-0084-02	BIG BIRCH (SOUTH BASIN)	221	16	10.7	6.0	18.5	Osendorf, Robert
77-0084-02	BIG BIRCH (SOUTH BASIN)	222	13	10.9	6.5	16.5	Schiemann, Beth
77-0084-02	BIG BIRCH (SOUTH BASIN)	223	16	10.8	6.0	18.0	Dinndorf, Don A.
77-0084-02	BIG BIRCH (SOUTH BASIN)	224	11	12.2	6.5	19.0	Price, Gary
77-0084-02	BIG BIRCH (SOUTH BASIN)	226	16	11.0	6.0	19.0	Osendorf, Robert
77-0089	LITTLE BIRCH	201	11	8.3	4.0	15.0	Moening, Bud
77-0089	LITTLE BIRCH	202	10	8.5	5.0	14.5	Moening, Bud
77-0089	LITTLE BIRCH	203	11	8.4	4.5	15.0	Moening, Bud
77-0089	LITTLE BIRCH	204	11	8.5	5.0	15.0	Moening, Bud
77-0164	LITTLE SAUK	201	9	3.6	2.0	5.0	Eidem, Richard
77-0027	LONG	201	7	8.4	7.0	14.0	Scatterella, Troy L.
77-0149-01	LONG (MAIN BASIN)	201	13	12.3	6.0	19.0	Ploof, Jim & Carolyn
77-0149-01	LONG (MAIN BASIN)	201	2	17.5	17.0	18.0	Schumacher, Kevin
77-0149-02	LONG (SOUTH BAY)	201	4	14.8	10.0	19.0	Ploof, Jim & Carolyn
77-0007	MOUND	201	14	16.6	9.0	25.0	Peterson, David
77-0007	MOUND	202	14	16.8	9.0	25.0	Peterson, David
77-0007	MOUND	202	13	16.0	8.0	25.0	Zeis, Robert
77-0215	OSAKIS	204	5	8.8	3.5	20.0	Meyer, Rhoda
77-0215	OSAKIS	208	5	10.9	5.5	14.0	Koich, Stan M.
77-0067	PINE ISLAND	201	4	10.8	9.5	11.5	Beaudry, Paul
77-0150-02	SAUK (NORTH BAY)	205	11	6.8	3.0	17.5	Weir, Tim & Dave
77-0150-02	SAUK (NORTH BAY)	206	16	8.3	2.8	16.0	Carlisle, Steve
77-0150-01	SAUK (SW BAY)	201	18	5.4	2.0	16.0	Beckerman, Vern

Traverse County

LAKE ID	LAKE NAME	SITE	NS	MEAN	MIN	MAX	VOLUNTEERS
78-0025	TRAVERSE	206	2	2.0	1.5	2.5	Grazzini, Gregory

Legend

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Wadena County

LAKE ID	LAKE NAME	SITE	NS	MEAN	MIN	MAX	VOLUNTEERS
80-0034	BLUEBERRY	201	19	2.6	1.1	6.0	Lindblom, Leofwin
80-0027-01	JIM COOK (WEST)	201	2	3.5	3.5	3.5	Lindblom, Leofwin
80-0030	LOWER TWIN	201	5	6.6	5.5	7.5	Broughton, Don
80-0038	MORGAN	201	17	19.6	17.0	24.0	Lindblom, Leofwin
80-0039	SPIRIT	202	17	11.8	10.5	15.0	Lindblom, Leofwin
80-0039	SPIRIT	203	9	10.9	10.0	12.0	Callahan, Mike
80-0037	STOCKING	203	7	7.2	3.5	11.0	Hepokoski, Mark

Waseca County

LAKE ID	LAKE NAME	SITE	NS	MEAN	MIN	MAX	VOLUNTEERS
81-0014-01	CLEAR	201	16	2.5	1.5	3.5	Rathmann, Duane
81-0095	ELYSIAN	203	11	1.6	1.0	3.0	Genz, Carl J.
81-0055	REEDS	201	11	6.3	4.5	10.0	Kretzschmar, Alan
81-0003	ST. OLAF	201	8	5.1	3.0	12.0	Spencer, Todd

Washington County

LAKE ID	LAKE NAME	SITE	NS	MEAN	MIN	MAX	VOLUNTEERS
82-0049	BIG CARNELIAN	202	8	15.1	11.0	21.0	Gavelak, Ron
82-0049	BIG CARNELIAN	203	9	13.7	8.5	19.5	Bower, John
82-0049	BIG CARNELIAN	204	6	14.1	11.5	17.0	McKay, Maurice
82-0052	BIG MARINE	203	3	11.8	8.0	15.0	Hinze, Charlie
82-0054	BONE	202	9	5.6	3.8	7.5	Hafner, Jon
82-0163	CLEAR	202	8	4.6	3.5	6.0	Fuerstenberg, Deborah J.
82-0159	FOREST	212	5	5.1	3.5	7.5	Murphy, John T.
82-0080	HALFBREED (SYLVAN)	203	6	17.0	15.0	19.0	Huerstel, Peggy & Eugene
82-0104	JANE	201	15	13.6	11.0	16.5	Taylor, Charles W.
82-0021	LONG	201	3	2.2	1.5	3.0	Peterson, Leah
82-0130	LONG	201	8	8.1	7.5	8.5	Francy-Payton, Kathryn A.
82-0030	LONG (MAPLE ISLAND)	201	3	8.3	7.0	9.0	Griffith, David
82-0010	MCDONALD	202	13	5.7	2.0	11.5	Kelsey, Maynard J.
82-0046	SQUARE	205	12	18.3	16.0	21.0	McGee, Richard
82-0153	SUNSET	201.1	8	11.3	8.2	16.1	Coderre, Diane
82-0153	SUNSET	201.1	4	10.4	10.0	10.5	Mottl, Greg
82-0128	UNNAMED	201	4	4.4	3.5	5.5	Vanzwol, Charles F.
82-0135	UNNAMED (ECHO)	201	4	2.0	1.7	3.0	Serley, Jim
82-0167	WHITE BEAR	223	1	8.0	8.0	8.0	Bartz, Greg

Wright County

LAKE ID	LAKE NAME	SITE	NS	MEAN	MIN	MAX	VOLUNTEERS
86-0234	BASS	203	10	16.4	10.5	25.0	Ross, Dan
86-0023	BEEBE	204	17	3.9	2.0	9.0	Pyle, Roger
86-0023	BEEBE	205	17	4.3	2.0	9.0	Pyle, Roger
86-0023	BEEBE	206	16	4.2	2.0	9.0	Pyle, Roger
86-0066	BIRCH	202	15	14.6	10.0	20.5	Holme, Keith
86-0090	BUFFALO	201	3	2.8	1.5	5.0	Mueller, Craig
86-0221	CAMP	201	4	5.5	4.5	6.5	Moe, Jenny
86-0221	CAMP	202	4	6.8	2.0	11.5	Young, Eric
86-0227	CEDAR	202	7	10.3	5.0	17.5	Johnson, Robert B.
86-0227	CEDAR	203	7	10.1	5.0	17.0	Johnson, Robert B.

Legend

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Wright County Continued

LAKE ID	LAKE NAME	SITE	NS	MEAN	MIN	MAX	VOLUNTEERS
86-0227	CEDAR	206	6	7.9	4.0	13.0	Badger, Donald C.
86-0227	CEDAR	207	6	9.0	4.5	16.0	Badger, Donald C.
86-0252	CLEARWATER	210	11	11.3	6.5	18.0	Roeder, Delores
86-0252	CLEARWATER	211	11	8.4	4.0	21.0	Roeder, Delores
86-0293	COLLINWOOD	201	7	4.5	3.5	6.5	Gehlen, Richard
86-0148	EAGLE	202	17	5.9	4.0	9.0	Johnson, Jim
86-0289	EAST LAKE SYLVIA	201	6	18.3	16.0	23.0	Robb, Tim
86-0289	EAST LAKE SYLVIA	202	5	17.6	15.0	20.0	Heino, Helen
86-0289	EAST LAKE SYLVIA	204	3	15.8	15.0	17.0	Neumann, Herold
86-0289	EAST LAKE SYLVIA	205	8	19.0	16.5	23.0	Beek, E.J.
86-0183	FISH	201	13	4.0	2.5	6.5	Durant, Karen
86-0086	FOUNTAIN	201	4	1.1	0.8	2.0	DeBeer, Harry
86-0273	FRENCH	202	9	4.4	3.0	5.5	Wittsack, Herm
86-0217	GRANITE	201	5	9.7	4.0	20.5	Peterson, Jean A.
86-0217	GRANITE	202	5	10.2	4.0	20.5	Peterson, Jean A.
86-0217	GRANITE	202	15	7.7	3.5	14.0	Rau, Ray
86-0217	GRANITE	203	5	9.5	4.0	17.5	Peterson, Jean A.
86-0217	GRANITE	204	15	7.5	3.5	14.0	Rau, Ray
86-0217	GRANITE	205	15	7.8	3.0	14.5	Rau, Ray
86-0217	GRANITE	206	15	8.0	3.5	16.0	Rau, Ray
86-0217	GRANITE	207	15	7.6	3.5	14.0	Rau, Ray
86-0243	GRASS	201	16	10.8	7.0	17.0	Derosier, Jerome
86-0199	HOWARD	201	10	3.5	2.0	6.5	Forst, Curt
86-0146	IDA	207	5	14.1	13.0	15.0	Westveer, Dirk
86-0223	INDIAN	201	9	4.3	2.5	7.0	Nelson, Alton E.
86-0288	JOHN	201	13	11.3	6.0	18.0	Fleskes, Robert
86-0282	LOUISA (MARIE)	203	10	4.0	2.5	7.0	Driver, Donn R.
86-0134	MAPLE	201	17	3.1	2.0	11.0	Ruddle, Bill
86-0134	MAPLE	203	17	11.6	7.0	14.5	Ruddle, Bill
86-0134	MAPLE	206	17	12.1	7.0	16.0	Ruddle, Bill
86-0134	MAPLE	207	2	12.5	11.5	13.5	Ditter, Bill
86-0009	MARTHA	201	13	7.7	5.0	11.0	Brallier, Susan
86-0156	MARY	201	4	6.0	5.0	8.0	Wurm, John
86-0193	MARY	201	7	7.1	6.0	8.0	Wynnemer, Gloria
86-0193	MARY	202	12	9.5	6.5	18.0	Ollig, Mike
86-0238	NIXON	202	15	11.4	9.0	12.5	Lee, William A.
86-0251	PLEASANT	204	7	6.7	4.0	12.0	Peterson, Jim
86-0053-02	PULASKI (MAIN BAY)	204	7	15.1	9.5	23.0	Muntifering, Ron
86-0182	ROCK	202	17	5.1	3.0	9.0	Yager, Peter, Mark & Eliz.
86-0233	SUGAR	203	9	9.3	8.0	12.0	Kastl, James E.
86-0298	UNION	203	11	5.2	3.0	8.5	Lysen, Paul
86-0279	WEST LAKE SYLVIA	204	7	18.0	16.0	20.5	Waldhauer, John
86-0279	WEST LAKE SYLVIA	211	6	19.2	16.0	22.0	Dandrea, Jim

Legend

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Appendix II. 2005 Long Term Secchi Trend Analysis

Aitkin County

LAKE ID	LAKE NAME	YEAR	TREND
01-0157	Big Pine	2005	No Trend
01-0062	Big Sandy	2005	Declining
01-0209-01	Cedar (Main)	2005	Declining
01-0209-03	Cedar (West Bay)	2005	Declining
01-0093	Clear	2005	Improving
01-0096	Dam	2005	No Trend
01-0123	Elm Island	2005	No Trend
01-0147	Esquagamah	2005	Improving
01-0159	Farm Island	2005	No Trend
01-0105	Fleming	2005	No Trend
01-0099	Gun	2005	No Trend
01-0170	Hanging Kettle	2005	No Trend
01-0142-01	Hill (N Basin)	2002	No Trend
01-0142-02	Hill (S Basin)	2001	No Trend
01-0034	Horseshoe	2000	No Trend
01-0176	Little Pine	2005	No Trend
01-0125	Lone	2005	No Trend
01-0089	Long	2005	No Trend
01-0033	Minnewawa	2005	No Trend
01-0117	Nord	2005	No Trend
01-0001	Pine	2005	Improving
01-0091	Rabbit	2005	No Trend
01-0077	Rat	2005	No Trend
01-0204	Round	2005	No Trend
01-0137	Round	2005	No Trend
01-0023	Round	2005	No Trend
01-0178	Spirit	2005	No Trend
01-0087	Sugar	2005	No Trend
01-0102	Wilkins	2005	Improving

Anoka County

LAKE ID	LAKE NAME	YEAR	TREND
02-0006	Centerville	2005	No Trend
02-0042	Coon	2005	Improving
02-0084	Crooked	2005	Improving
02-0075-01	East Moore	2004	Improving
02-0133	East Twin	2002	No Trend
02-0035	Fawn	2005	No Trend
02-0091	George	2004	No Trend
02-0005	George Watch	2004	No Trend
02-0045	Golden	2005	No Trend
02-0053	Ham	2005	Declining
02-0072	Laddie	2003	No Trend
02-0026	Linwood	2005	No Trend
02-0034	Martin	2005	Improving
02-0052	Netta	2003	No Trend
02-0003	Otter	2005	Improving
02-0004	Peltier	2005	No Trend
02-0080	Sandy	2003	Declining
02-0654	Unnamed(Cenaiko)	2004	No Trend
02-0075-02	West Moore	2003	Improving

Becker County

LAKE ID	LAKE NAME	YEAR	TREND
03-0085	Bad Medicine	2005	No Trend
03-0576	Big Cormorant	2005	Improving
03-0304	Big Sugar Bush	2005	No Trend
03-0030	Boot	2005	Improving
03-0400	Brandy	2005	No Trend
03-0350	Buffalo	2002	No Trend
03-0286	Cotton	2005	No Trend
03-0381	Detroit (Main)	2005	Improving
03-0381	Detroit (W Basin)	2005	Improving
03-0159	Elbow	2003	No Trend
03-0503	Eunice	2005	No Trend
03-0387-02	Floyd (S Bay)	2005	No Trend
03-0358	Fox	2005	No Trend
03-0195	Height Of Land	2002	No Trend
03-0582	Ida	2005	No Trend
03-0153	Island	2005	Improving
03-0136	Juggler	2005	Improving
03-0506	Little Cormorant	2005	Improving
03-0386	Little Floyd	2005	No Trend
03-0189	Little Toad	2005	Improving
03-0383	Long	2005	Declining
03-0500	Maud	2005	No Trend
03-0371	Meadow	2005	No Trend
03-0475	Melissa	2005	No Trend
03-0602	Middle Cormorant	2005	No Trend
03-0387-01	Mud	2005	No Trend
03-0357	Munson	2005	No Trend
03-0360	Muskrat	2005	No Trend
03-0595	Nelson	2005	No Trend
03-0486	Pearl	2005	No Trend
03-0287	Pickerel	2005	No Trend
03-0293	Rock	2005	Declining
03-0155	Round	2005	Improving
03-0359	Sallie	2005	No Trend
03-0382	St. Clair	2005	No Trend
03-0010	Straight	2005	No Trend
03-0619	Talac	2005	No Trend
03-0107	Toad	2005	Improving
03-0657	Turtle	2005	No Trend
03-0017	Two Inlets	2005	No Trend
03-0328	White Earth	2005	Improving

Legend
LAKE ID: Lake Identification Number
LAKE NAME: Name of Lake
YEAR: last Year Data Collected
TREND: Describes presence of trend – improving, declining, or no change in transparency trend.

Beltrami County

LAKE ID	LAKE NAME	YEAR	TREND
04-0135	Beltrami	2005	No Trend
04-0130	Bemidji	2005	No Trend
04-0049	Big	2005	No Trend
04-0069	Blackduck	2005	Improving
04-0030	Cass	2005	Improving
04-0343	Clearwater	2005	No Trend
04-0230	Deer	2005	No Trend
04-0140	Irving	2005	No Trend
04-0110	Little Bass	2005	No Trend
04-0155	Little Turtle	2005	No Trend
04-0076	Long	2005	Improving
04-0063	North Twin	2005	Improving
04-0053	South Twin	2005	Declining
04-0134	Three Island	2004	No Trend
04-0159	Turtle	2005	Improving
04-0111	Turtle River	2005	No Trend
04-0079	Wolf	2005	Improving

Benton County

LAKE ID	LAKE NAME	YEAR	TREND
05-0013	Little Rock	1999	No Trend

Big Stone County

LAKE ID	LAKE NAME	YEAR	TREND
06-0152	Big Stone	2005	Improving

Blue Earth County

LAKE ID	LAKE NAME	YEAR	TREND
07-0054	Ballantyne	2001	No Trend
07-0053	Duck	2005	Declining
07-0044	Madison	2005	No Trend

Brown County

LAKE ID	LAKE NAME	YEAR	TREND
08-0026	Hanska	2005	Declining
08-0045	Sleepy Eye	2005	No Trend

Carlton County

LAKE ID	LAKE NAME	YEAR	TREND
09-0032	Big	2004	No Trend
09-0008	Chub	2003	Improving
09-0057	Eagle	2005	No Trend
09-0039	Eddy	2005	Declining
09-0038	Hanging Horn	2005	No Trend
09-0035	Little Hanging Horn	2005	Improving
09-0060-02	Lower (South) Island	2005	No Trend
09-0029	Park	2005	No Trend

Carver County

LAKE ID	LAKE NAME	YEAR	TREND
10-0019	Bavaria	2005	Declining
10-0005	Courthouse	2005	Improving
10-0121	Eagle	2005	No Trend
10-0089	Goose	2005	No Trend
10-0088	Hydes	2005	No Trend
10-0006	Lotus	2005	No Trend
10-0007	Lucy	2005	No Trend
10-0029	Miller	2005	No Trend
10-0009	Minnewashta	2005	No Trend
10-0042	Parley	2003	No Trend
10-0053	Piersons	2005	Declining
10-0052	Reitz	2004	No Trend
10-0002	Riley	2004	No Trend
10-0018	Schutz	2004	No Trend
10-0045	Steiger	1996	No Trend
10-0095	Swede	2005	No Trend
10-0059	Waconia	2005	Improving
10-0048	Wassermann	2005	No Trend
10-0044-01	West Auburn	1996	No Trend
10-0041	Zumbra-Sunny	2002	No Trend

Cass County

LAKE ID	LAKE NAME	YEAR	TREND
11-0250	Ada	2005	No Trend
11-0283	Baby	2005	Improving
11-0069	Bass	2005	Improving
11-0308-02	Big Portage (E Bay/Rice Portage)	2005	No Trend
11-0308-01	Big Portage (W Bay/Big Portage)	2005	No Trend
11-0412	Birch	2005	Improving
11-0274	Blackwater	2005	Improving
11-0201-01	Broadwater Bay	2004	Improving
11-0263	Child	2005	No Trend
11-0163	Cooper	2005	Improving
11-0502	Crystal	2005	No Trend
11-0237	Deep Portage	2005	Declining
11-0351	Five Point	2005	Improving
11-0174	Girl	2005	No Trend
11-0305	Gull	2005	No Trend
11-0242	Hand	2005	Improving
11-0199	Hay	2005	No Trend
11-0358	Horseshoe	2003	No Trend
11-0472	Howard	2005	No Trend
11-0170	Hunter	2005	Improving

Legend
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Cass County Continued

LAKE ID	LAKE NAME	YEAR	TREND
11-0120-01	Inguadona (N. Bay)	2005	No Trend
11-0120-02	Inguadona (S. Bay)	2004	No Trend
11-0268	Kerr	2004	No Trend
11-0053	Lawrence	2005	No Trend
11-0037	Leavitt	2005	No Trend
11-0203-01	Leech (Main)	2005	No Trend
11-0203-04	Leech (Shingobee Bay)	1990	No Trend
11-0167	Little Boy	2005	No Trend
11-0236	Little Portage	2005	No Trend
11-0142-02	Long (Main)	2005	Declining
11-0142-03	Long (N Of Main)	1999	Declining
11-0142-04	Long (SW Bay)	2005	No Trend
11-0282	Mann	2004	No Trend
11-0222	Margaret	2005	No Trend
11-0261	Mckeown	2005	No Trend
11-0200	Mule	2005	Improving
11-0307	Norway	2005	No Trend
11-0355	Ox Yoke	2005	No Trend
11-0383	Pleasant	2005	Improving
11-0476	Portage	2005	Improving
11-0490	Portage	2005	No Trend
11-0220	Ray	2005	No Trend
11-0043	Roosevelt	2005	No Trend
11-0361	Sanborn	2004	No Trend
11-0371	Stony	2004	No Trend
11-0413	Ten Mile	2005	Improving
11-0062	Thunder	2005	Improving
11-0270	Trillium	2005	Improving
11-0218	Upper Gull	2005	Declining
11-0171-01	Wabedo (NE Bay)	2005	Improving
11-0171-02	Wabedo (SW Bay)	2005	No Trend
11-0059	Washburn	2005	No Trend
11-0201-02	Woman (Main)	2005	Improving

Chisago County

LAKE ID	LAKE NAME	YEAR	TREND
13-0053	Comfort	2005	No Trend
13-0069-01	East Rush	2005	Improving
13-0083-01	Goose (N Bay)	2005	No Trend
13-0083-02	Goose (S Bay)	2005	No Trend
13-0041-02	Green (Main)	2005	Improving
13-0041-01	Green(Little Green)	2005	Improving
13-0032-01	North Center Lake	2005	No Trend
13-0027	South Center	2005	No Trend
13-0069-02	West Rush	2005	No Trend

Clearwater County

LAKE ID	LAKE NAME	YEAR	TREND
15-0010	Elk	2004	No Trend
15-0016	Itasca	2004	Improving
15-0068	Long Lost	2005	Improving
15-0060	Walker Brook	2005	No Trend

Cook County

LAKE ID	LAKE NAME	YEAR	TREND
16-0228	Bearskin	2005	No Trend
16-0360	Caribou	2005	No Trend
16-0139	Clearwater	2005	Improving
16-0253	Deer Yard	2002	No Trend
16-0632-01	Gull (Main)	1989	No Trend
16-0356	Gunflint	2005	No Trend
16-0227	Hungry Jack	2005	No Trend
16-0252	Pike	2005	No Trend
16-0239	Poplar	2005	Declining
16-0384	Tait	2003	No Trend
16-0019	Tom	2005	No Trend

Cottonwood County

LAKE ID	LAKE NAME	YEAR	TREND
17-0007	Bingham	2005	No Trend
17-0003	Mountain	2005	No Trend

Crow Wing County

LAKE ID	LAKE NAME	YEAR	TREND
18-0384	Bass	2005	No Trend
18-0034	Bay	2005	Improving
18-0355	Bertha	2005	Declining
18-0315	Big Trout	2005	Declining
18-0211	Blue	2002	No Trend
18-0356	Clamshell	2005	No Trend
18-0374	Clark	2003	No Trend
18-0038	Clearwater	2005	Declining
18-0041-02	Crooked (Main)	2005	Improving
18-0041-01	Crooked (Sugar)	2005	Improving
18-0312	Cross Lake Reservoir	2005	No Trend
18-0155	Crow Wing	2005	No Trend
18-0271	Daggett	2005	Improving
18-0305	Edward	2005	No Trend
18-0320-01	Gilbert (E Bay)	2005	No Trend
18-0338	Gladstone	2005	No Trend
18-0044	Hanks	2005	Improving
18-0251-01	Horseshoe (E Bay)	2005	No Trend
18-0251-02	Horseshoe (W Bay)	2005	No Trend
18-0375	Hubert	2004	No Trend
18-0269	Island	2003	No Trend

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Crow Wing County Continued

LAKE ID	LAKE NAME	YEAR	TREND
18-0183	Island	2005	No Trend
18-0340	Little Hubert	2005	Improving
18-0351	Little Pelican	2005	No Trend
18-0266	Little Pine	2005	Improving
18-0360	Little Star	2001	Improving
18-0342	Lougee	2005	No Trend
18-0403	Lower Cullen	2005	Improving
18-0378	Lower Hay	2005	No Trend
18-0243	Lower Mission	2004	Improving
18-0185	Mary	2005	No Trend
18-0408	Mayo	2002	Improving
18-0377	Middle Cullen	2005	Improving
18-0021	Miller	2005	No Trend
18-0372	North Long	2005	Improving
18-0227-02	O'brien (Ne Bay)	2005	No Trend
18-0352	Ossawinnamakee	2005	Improving
18-0308	Pelican	2005	Improving
18-0354	Pig	2005	Declining
18-0088	Platte	2005	No Trend
18-0050	Portage	2005	Improving
18-0093-01	Rabbit (E Portion)	2005	Improving
18-0093-02	Rabbit (W Portion)	2005	No Trend
18-0165	Ross	2005	Improving
18-0373	Round	2005	No Trend
18-0398	Roy	2002	Improving
18-0311	Rush	2005	No Trend
18-0212	Ruth	2005	Improving
18-0090	Serpent	2005	No Trend
18-0404	Sibley	2004	No Trend
18-0028	Smith	2005	Declining
18-0136	South Long	2004	Improving
18-0359	Star	2005	No Trend
18-0169	Stark	2005	No Trend
18-0218	Trout	2002	No Trend
18-0376	Upper Cullen	2005	No Trend
18-0412	Upper Hay	2005	No Trend
18-0242	Upper Mission	2005	Improving
18-0096	Upper S Long	2005	No Trend
18-0284	Velvet	2005	Improving
18-0297	West Fox	2005	Declining
18-0379	White Sand	2005	No Trend
18-0310	Whitefish	2005	Declining
18-0001	Whitefish	2005	Improving

Dakota County

LAKE ID	LAKE NAME	YEAR	TREND
19-0021	Alimagnet	2005	No Trend
19-0059	Blackhawk	2002	No Trend
19-0006	Byllesby	2005	No Trend
19-0150	Cedar Pond	2005	Improving
19-0027	Crystal	2004	No Trend
19-0033	Earley	2004	No Trend
19-0161	East Thomas	2005	No Trend
19-0023	Farquar	2004	Declining
19-0057	Fish	2005	No Trend
19-0065	Holland	2003	Improving
19-0071	Jensen	2004	No Trend
19-0025	Keller	2004	No Trend
19-0030	Kingsley	2004	No Trend
19-0446	Laclavon	2004	No Trend
19-0029	Lee	2004	No Trend
19-0055	Lemay	1997	Improving
19-0026-01	Marion (E Bay)	2004	No Trend
19-0056	O'Leary	2004	No Trend
19-0031	Orchard	2004	No Trend
19-0066	Quigley	2002	No Trend
19-0075	Schultz	2004	No Trend
19-0451	Sunset Pond	2004	No Trend
19-0067	Thomas	2005	No Trend
19-0156	Unnamed	2005	Declining
19-0348	Unnamed	2004	Improving
19-0062	Unnamed	2005	No Trend
19-0153	Unnamed (Heine Pond)	2005	Improving
19-0063	Unnamed (Schwanz)	2005	Improving
19-0095	Unnamed (Seidl)	2005	Declining
19-0037	Unnamed (Simley)	2002	No Trend
19-0024	Wood Park	2004	No Trend

Douglas County

LAKE ID	LAKE NAME	YEAR	TREND
21-0053	Agnes	1997	No Trend
21-0085	Andrew	2003	No Trend
21-0102	Brophy	2005	Improving
21-0057	Carlos	2005	No Trend
21-0145	Chippewa	2005	Improving
21-0103	Cowdrey	2005	No Trend
21-0080	Darling	2005	No Trend
21-0213	Devils	2005	Improving
21-0052	Geneva	2005	No Trend
21-0051	Henry	1997	No Trend
21-0123	Ida	2005	Improving
21-0076	Irene	2005	No Trend
21-0055	Jessie	2005	No Trend
21-0106-01	Latoka (N Bay)	2005	No Trend
21-0106-02	Latoka (S Bay)	2005	Improving
21-0056	Le Homme Dieu	2005	No Trend
21-0212	Little Chippewa	2005	Improving
21-0144-01	Lobster (E Bay)	2005	No Trend

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Douglas County Continued

LAKE ID	LAKE NAME	YEAR	TREND
21-0144-02	Lobster (W Bay)	2005	Improving
21-0105	Lottie	2003	No Trend
21-0079	Maple	2005	Improving
21-0092	Mary	2005	Declining
21-0180	Mill	2002	No Trend
21-0083	Miltona	2005	No Trend
21-0095	North Union	2003	No Trend
21-0291	Red Rock	2005	No Trend
21-0016	Smith	2005	No Trend
21-0101	Stony	2003	Improving
21-0073	Vermont	2004	Improving
21-0054	Victoria	2005	Improving
21-0216	Whiskey	2005	No Trend
21-0081	Winona	2005	Improving

Faribault County

LAKE ID	LAKE NAME	YEAR	TREND
22-0074	Bass	2001	No Trend

Freeborn County

LAKE ID	LAKE NAME	YEAR	TREND
24-0014	Albert Lea	2001	No Trend

Goodhue County

LAKE ID	LAKE NAME	YEAR	TREND
25-0001	Pepin	1999	No Trend

Grant County

LAKE ID	LAKE NAME	YEAR	TREND
26-0095	Barrett	2005	Improving
26-0040	Elk	2005	No Trend
26-0282	Lightning	2005	No Trend
26-0235	Mustinka River Flowage	2002	No Trend
26-0002	Pelican	2005	No Trend
26-0097	Pomme De Terre	2005	No Trend

Hennepin County

LAKE ID	LAKE NAME	YEAR	TREND
27-0098	Bass	2005	No Trend
27-0038	Brownie	2002	No Trend
27-0067	Bryant	1996	No Trend
27-0047	Bush	2005	No Trend
27-0031	Calhoun	2005	Improving
27-0039	Cedar	2004	Improving
27-0119	Cedar Island	2005	Declining
27-0137	Christmas	2003	No Trend
27-0022	Diamond	2005	No Trend
27-0125	Diamond	2004	No Trend
27-0111-01	Eagle	2005	No Trend
27-0191-02	East Sarah	2005	No Trend
27-0118	Fish	2005	No Trend
27-0016	Harriet	2004	No Trend
27-0018	Hiawatha	2004	No Trend
27-0048	Hyland	1995	No Trend
27-0176	Independence	2005	Declining
27-0040	Lake Of The Isles	2004	Improving
27-0655-02	Loring (S. Bay)	2004	Declining
27-0104	Medicine	1996	No Trend
27-0133-10	Minnetonka-Crystal Bay	2005	No Trend
27-0133-09	Minnetonka-Halsteds Bay	2005	No Trend
27-0133-15	Minnetonka-Jennings Bay	1998	Improving
27-0133-02	Minnetonka-Lower Lake	2005	Improving
27-0133-11	Minnetonka-Maxwell Bay	2005	No Trend
27-0133-12	Minnetonka-Stubbs Bay	2005	No Trend
27-0133-05	Minnetonka-Upper Lake	2005	Improving
27-0133-14	Minnetonka-West Arm	2005	Improving
27-0019	Nokomis	2005	No Trend
27-0184-01	North Whaletail	2004	No Trend
27-0107	Parkers	2005	No Trend
27-0138	Peavey	1999	No Trend
27-0111-02	Pike	2005	Declining
27-0014	Powderhorn	2005	No Trend
27-0200	Rattail	1994	No Trend
27-0192	Rebecca	1996	Declining
27-0102	Schmidt	2005	No Trend
27-0184-02	South Whaletail	2004	No Trend
27-0149	Spurzem	1996	Improving
27-0141	Tanager	2005	No Trend
27-0042-01	Upper Twin	2004	No Trend
27-0117	Weaver	2005	No Trend
27-0191-01	West Sarah	2005	No Trend
27-0037	Wirth	2004	Improving
27-0026	Wood	1990	No Trend

Hubbard County

LAKE ID	LAKE NAME	YEAR	TREND
29-0208	Bad Axe	2005	No Trend
29-0146	Belle Taine	2005	Improving
29-0032	Big Bass	2005	Improving
29-0185	Big Sand	2005	Improving
29-0143	Big Stony	2005	Declining

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Hubbard County Continued

LAKE ID	LAKE NAME	YEAR	TREND
29-0162	Boulder	2002	Improving
29-0256	Eagle	2005	No Trend
29-0101-01	East Crooked	2002	No Trend
29-0072	Eighth Crow Wing	2005	No Trend
29-0092	Fifth Crow Wing	2005	No Trend
29-0086	First Crow Wing	2005	No Trend
29-0242	Fish Hook	2005	No Trend
29-0061	Garfield	2003	No Trend
29-0188	Gilmore	2005	Declining
29-0249	Hinds	2002	Improving
29-0088	Island	2005	No Trend
29-0075	Kabekona	2005	No Trend
29-0313	Little Mantrap	2005	No Trend
29-0150	Little Sand	2005	Improving
29-0161	Long	2005	Declining
29-0248	Lord	1999	No Trend
29-0180	Lower Bottle	2005	No Trend
29-0151-01	Mantrap (E Basin)	2005	No Trend
29-0151-05	Mantrap (Home Bay)	2005	Declining
29-0151-02	Mantrap (Middle Basin)	2005	No Trend
29-0151-04	Mantrap (W Arm)	2005	No Trend
29-0066	Midge	2005	Improving
29-0247	Moran	2005	No Trend
29-0087	Palmer	2005	Improving
29-0250	Portage	2005	No Trend
29-0243	Potato	2005	Improving
29-0091	Seventh Crow Wing	2005	No Trend
29-0093	Sixth Crow Wing	2004	No Trend
29-0239	Spearhead	2003	No Trend
29-0117-02	Spider (East Bay)	2005	Improving
29-0117-01	Spider (NE/SW Bay)	2005	No Trend
29-0172	Stocking	2002	No Trend
29-0077	Third Crow Wing	2002	Improving
29-0148	Upper Bottle	2005	No Trend
29-0157	Upper Twin	2005	No Trend

Isanti County

LAKE ID	LAKE NAME	YEAR	TREND
30-0107-01	Blue (North Bay)	2005	Improving
30-0136	Green	2005	No Trend
30-0022	Skogman	2005	No Trend
30-0135	Spectacle	2005	No Trend
30-0009	Typo	2003	Declining

Itasca County

LAKE ID	LAKE NAME	YEAR	TREND
31-0259	Balsam	2005	No Trend
31-0576	Bass	2005	No Trend
31-0058	Beatrice	2005	No Trend
31-0726	Bello	2005	Declining
31-0656	Big Dick	2005	No Trend
31-0671	Big Island	2003	Improving
31-0395	Bluewater	2005	No Trend
31-0623	Boy	2005	Improving
31-0069	Buck	2005	Improving
31-0424	Burnt Shanty	2005	Improving
31-0620	Caribou	2005	Improving
31-0214	Clearwater	2005	No Trend
31-0193	Crooked	2005	No Trend
31-0334	Deer	2005	No Trend
31-0719	Deer	2005	No Trend
31-0921	Dixon	2005	No Trend
31-0536	Doan	2002	No Trend
31-0221	Dunning	2005	Improving
31-0454	Eagle	2001	No Trend
31-0616	East Smith	2005	No Trend
31-0624	Grave	2005	No Trend
31-0452	Gunn	2005	No Trend
31-0373	Hale	2005	Improving
31-0361	Hale	2005	No Trend
31-0696	Horseshoe	2005	No Trend
31-0657-01	Jack The Horse (N)	2005	No Trend
31-0657-02	Jack The Horse (S)	2004	No Trend
31-0786	Jessie	2005	No Trend
31-0586	Johnson	2005	Declining
31-0231	Lawrence	2005	No Trend
31-0621	Little Dead Horse	2005	No Trend
31-0394	Little Trout	2005	No Trend
31-0266	Long	2005	No Trend
31-0571	Loon	2005	No Trend
31-0078	Mcguire	2005	No Trend
31-0653	North Star	2005	No Trend
31-0292	Owen	1999	Improving
31-0532-01	Pokegama (Main)	2005	No Trend
31-0532-02	Pokegama (Wendigo)	2005	No Trend
31-0384	Prairie	2005	No Trend
31-0664	Ranier	2003	Declining
31-0209	Round	2005	No Trend
31-0422	Ruby	1995	Improving
31-0438	Sand	2005	Improving
31-0826	Sand	2005	No Trend
31-0084	Shallow	2005	Declining
31-0554	Siseebakwet	2005	No Trend
31-0255	Snaptail	2005	No Trend

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Itasca County Continued

LAKE ID	LAKE NAME	YEAR	TREND
31-0003	South Sturgeon	2005	No Trend
31-0191	South Twin	2005	No Trend
31-0538	Spider	2005	No Trend
31-0353	Split Hand	2005	No Trend
31-0067-02	Swan (Main)	2005	Improving
31-0067-01	Swan (West Bay)	2005	No Trend
31-0216	Trout	2005	Improving
31-0410	Trout	2005	No Trend
31-0725	Turtle	2005	Improving
31-0392	Wabana	2005	Improving
31-0260	White Swan	2002	Improving

Jackson County

LAKE ID	LAKE NAME	YEAR	TREND
32-0022	Clear	2005	No Trend
32-0018	Fish	2005	No Trend

Kanabec County

LAKE ID	LAKE NAME	YEAR	TREND
33-0028	Knife	2005	Improving
33-0032	Lewis	2005	No Trend
33-0015	Quamba	2005	No Trend

Kandiyohi County

LAKE ID	LAKE NAME	YEAR	TREND
34-0206	Andrew	2005	Improving
34-0086	Big Kandiyohi	2005	Improving
34-0044	Diamond	2005	No Trend
34-0171	Eagle	2005	No Trend
34-0217	Florida	2005	Declining
34-0224	Games	2005	Improving
34-0142	George	2005	Improving
34-0079	Green	2005	Improving
34-0116	Henderson	2001	No Trend
34-0066	Long	2005	Improving
34-0192	Long	2005	No Trend
34-0154	Nest	2005	No Trend
34-0251	Norway	2005	No Trend

Lake County

LAKE ID	LAKE NAME	YEAR	TREND
38-0779	Farm	2005	No Trend
38-0782	Garden	2005	No Trend
38-0557	Grouse	2005	No Trend
38-0242	Johnson	2005	Declining
38-0406	Lax	2005	Improving
38-0640	Ojibway	2003	No Trend
38-0778	South Farm	2005	No Trend
38-0744	Stewart	2005	No Trend
38-0715	Triangle	2001	No Trend

Lake of the Woods County

LAKE ID	LAKE NAME	YEAR	TREND
39-0002-02	Lake Of The Woods(4 Mi Bay)	2005	No Trend

Le Sueur County

LAKE ID	LAKE NAME	YEAR	TREND
40-0092-01	East Jefferson	2005	Improving
40-0124	Emily	2005	No Trend
40-0051	Fish	2005	No Trend
40-0057	Frances	2005	No Trend
40-0063	German	2005	No Trend
40-0092-04	Middle Jefferson	2005	Improving
40-0031	Tetonka	2005	No Trend
40-0033	Volney	2002	No Trend
40-0117	Washington	2005	No Trend
40-0092-02	West Jefferson	2005	No Trend

Lincoln County

LAKE ID	LAKE NAME	YEAR	TREND
41-0043	Benton	2005	No Trend
41-0110	Hendricks	2003	Improving
41-0089	Shaokotan	2004	No Trend

McLeod County

LAKE ID	LAKE NAME	YEAR	TREND
43-0073	Hook	2005	No Trend

Mahnomen County

LAKE ID	LAKE NAME	YEAR	TREND
44-0001	Roy	2005	No Trend
44-0045	Snider	2005	Improving
44-0003	Tulaby	2005	No Trend

Martin County

LAKE ID	LAKE NAME	YEAR	TREND
46-0030	Budd	2005	No Trend
46-0109	Fox	2005	No Trend
46-0020	South Silver	2005	No Trend

Meeker County

LAKE ID	LAKE NAME	YEAR	TREND
47-0042	Betty	2005	Declining
47-0038	Big Swan	2005	No Trend
47-0095	Clear	2005	No Trend

Legend
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LAKE NAME: Name of Lake
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Meeker County Continued

LAKE ID	LAKE NAME	YEAR	TREND
47-0002	Francis	2005	No Trend
47-0015	Jennie	2002	No Trend
47-0177	Long	2005	No Trend
47-0026	Long	2002	No Trend
47-0050	Manuella	2005	No Trend
47-0119	Minnie-Belle	2005	No Trend
47-0088	Richardson	2005	No Trend
47-0032	Spring	2005	Improving
47-0068	Stella	2005	No Trend
47-0046	Washington	2001	No Trend

Mille Lacs County

LAKE ID	LAKE NAME	YEAR	TREND
48-0002	Mille Lacs	2005	Improving

Morrison County

LAKE ID	LAKE NAME	YEAR	TREND
49-0079	Alexander	2005	No Trend
49-0140	Cedar	2005	No Trend
49-0133	Crookneck	2005	No Trend
49-0137	Fish Trap	2005	Improving
49-0015	Long	2005	No Trend
49-0081	Pine	2005	No Trend
49-0056	Round	2005	Improving
49-0127	Shamineau	2005	No Trend
49-0016	Sullivan	2005	Improving

Murray County

LAKE ID	LAKE NAME	YEAR	TREND
51-0040	Bloody	2005	No Trend
51-0046	Shetek	2004	No Trend
51-0081	Wilson	2002	No Trend

Olmsted County

LAKE ID	LAKE NAME	YEAR	TREND
55-0005	Shady	2003	Improving
55-0004	Zumbro	2005	Improving

Otter Tail County

LAKE ID	LAKE NAME	YEAR	TREND
56-0867	Alice	2004	No Trend
56-0770	Bass	2005	Improving
56-1149	Berger	2005	No Trend
56-0386-01	Big McDonald	2004	Improving
56-0386-03	Big McDonald #2	2005	No Trend
56-0130	Big Pine	2005	No Trend
56-0240	Blanche	2005	Improving
56-0238	Clitherall	2005	No Trend
56-0383	Dead (East Bay)	2001	No Trend
56-0383	Dead (North Bay)	2005	Improving
56-0383	Dead (West Bay)	2003	No Trend
56-0298	Deer	2005	Improving
56-0253	Eagle	2005	Improving
56-0138	East Battle	2003	No Trend
56-0116-02	East Leaf	2005	No Trend
56-0378-01	East Lost (N. Bay)	2005	Improving
56-0378-02	East Lost (S. Bay)	2002	No Trend
56-0306	Elbow	2005	No Trend
56-0302-01	First Silver	2005	Improving
56-0768	Fish	2005	Improving
56-0639	Indian	2005	No Trend
56-0877	Jewett	2003	No Trend
56-0651	Larson	2005	No Trend
56-0532	Leek (Trowbridge)	2005	No Trend
56-0328	Little Mcdonald	2004	Improving
56-0761	Little Pelican	2005	No Trend
56-0142	Little Pine	2005	Improving
56-0388	Long	2005	No Trend
56-0243	Marion	2005	Improving
56-0116-01	Middle Leaf	2005	No Trend
56-0747-01	North Lida	2005	No Trend
56-0242	Otter Tail	2005	Improving
56-0786	Pelican	2005	Improving
56-0475	Pickerel	2005	Declining
56-0141	Rush	2003	No Trend
56-0358	Scalp	2005	No Trend
56-0369	Six	2005	Improving
56-0747-02	South Lida	2005	No Trend
56-0437	Stalker	2003	Improving
56-0385	Star	2005	Improving
56-0191-01	Stuart (Main)	2005	No Trend
56-0781	Swan	2005	Improving
56-0387	Sybil	2005	Improving
56-0931	Tamarac	2005	No Trend
56-0613	Ten Mile	2005	No Trend
56-0310	Walker	2003	Declining
56-0658	Wall	2005	Improving
56-0239	West Battle	2005	Improving
56-0114	West Leaf	2003	No Trend
56-0386-02	West McDonald	2005	No Trend

Pine County

LAKE ID	LAKE NAME	YEAR	TREND
58-0138	Big Pine	2005	No Trend
58-0119	Cross	2002	Improving
58-0123	Grindstone	2004	No Trend
58-0062	Island	2004	Improving
58-0142	Pokegama	2005	Improving

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Pine County Continued

LAKE ID	LAKE NAME	YEAR	TREND
58-0081	Sand	2005	No Trend
58-0067	Sturgeon	2005	No Trend
58-0024	Tamarack	2005	No Trend
58-0130	Upper Pine	2005	No Trend

Polk County

LAKE ID	LAKE NAME	YEAR	TREND
60-0305	Maple	2005	No Trend
60-0069	Sand Hill	1995	Improving
60-0202	Sarah	2005	No Trend
60-0130	Store	1999	No Trend
60-0217	Union	2005	No Trend

Pope County

LAKE ID	LAKE NAME	YEAR	TREND
61-0064	Amelia	2005	No Trend
61-0122	Ann	2005	No Trend
61-0180	Emily	2003	No Trend
61-0072	Gilchrist	2005	No Trend
61-0023	Grove	2003	No Trend
61-0092	Hoff	2005	No Trend
61-0066	Leven	2005	No Trend
61-0037	Linka	2004	No Trend
61-0162	Malmedal	2003	No Trend
61-0060	Marlu	2005	No Trend
61-0130	Minnewaska	2005	Improving
61-0111	Pelican	2005	No Trend
61-0078	Reno	2005	No Trend
61-0041	Scandinavian	2005	Improving
61-0128	Strandness	2003	No Trend
61-0067	Villard	2004	No Trend

Ramsey County

LAKE ID	LAKE NAME	YEAR	TREND
62-0002	Bald Eagle	2005	No Trend
62-0016	Beaver	2004	Improving
62-0048	Bennett	2004	Improving
62-0055	Como	2004	Improving
62-0080	Emily	2005	Improving
62-0095	Evergreen Ponds	2005	Improving
62-0007	Gervais	2005	No Trend
62-0075-02	Island (N Of I-694)	1997	Improving
62-0075-01	Island (S Of I-694)	1997	Improving
62-0078	Johanna	2005	No Trend
62-0057	Josephine	2005	Improving
62-0010-02	Keller (Main)	1997	Improving
62-0006	Kohlman	2004	Improving
62-0049-02	Langton (S. Bay)	2003	Improving
62-0067	Long	2004	Improving
62-0054	Mccarron	2005	No Trend
62-0056	Owasso	2005	Improving
62-0013	Phalen	2004	Improving
62-0069	Pike	2004	No Trend
62-0046	Pleasant	2005	Improving
62-0012	Round	2004	Improving
62-0001	Silver (East)	2005	Improving
62-0083	Silver (West)	2005	Improving
62-0073	Snail	2005	Improving
62-0061	Turtle	2005	No Trend
62-0039	Twin	2003	No Trend
62-0071	Valentine	2004	Improving
62-0082	Wabasso	2005	No Trend
62-0011	Wakefield	2004	No Trend

Renville County

LAKE ID	LAKE NAME	YEAR	TREND
65-0006	Allie	1997	No Trend

Rice County

LAKE ID	LAKE NAME	YEAR	TREND
66-0008	Cannon	2005	No Trend
66-0052	Cedar	2005	No Trend
66-0027	Circle	2005	No Trend
66-0014	Dudley	2005	No Trend
66-0029	Fox	2005	No Trend
66-0038	French	2005	No Trend
66-0047	Hunt	2005	No Trend
66-0015	Kelly	2005	No Trend
66-0039	Mazaska	2004	No Trend
66-0018	Roberds	2005	No Trend
66-0055	Shields	2005	No Trend

St. Louis County

LAKE ID	LAKE NAME	YEAR	TREND
69-0041	Bassett	2005	No Trend
69-0128	Briar	2005	Declining
69-0118	Burntside	2005	No Trend
69-0114	Cadotte	2005	No Trend
69-0489	Caribou	2005	No Trend
69-0285-01	Eagles Nest #1	2005	Improving
69-0285-02	Eagles Nest #2	2002	No Trend
69-0285-03	Eagles Nest #3	2005	No Trend
69-0218	Eagles Nest #4	2005	Improving
69-0660	Ely	2005	No Trend
69-0565	Esquagama	2005	No Trend
69-0654	Horseshoe	2005	No Trend

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St. Louis County Continued

LAKE ID	LAKE NAME	YEAR	TREND
69-0372-01	Island Rsvr.(W. Basin)	2001	No Trend
69-0845	Kabetogama	2005	Improving
69-0066	Little Long	2005	No Trend
69-0732	Little Sand	2005	Improving
69-0653	Long	2005	No Trend
69-0721	Majestic	2005	No Trend
69-0700	Maple Leaf	2005	Improving
69-0693	Namakan	2005	No Trend
69-0490	Pike	2005	No Trend
69-0848	Prairie	2005	No Trend
69-0694	Rainy	2005	No Trend
69-0429	Sabin (Embarrass Mine)	2005	No Trend
69-0736	Sand	2004	Improving
69-0617	Sand Point	2005	No Trend
69-0546	Schubert	2005	No Trend
69-0230	Schultz	2005	No Trend
69-0069	Shagawa	2005	Improving
69-0519	Side (Bowman)	2005	No Trend
69-0129	Spring	2005	No Trend
69-0939-01	Sturgeon	2005	No Trend
69-0378	Vermilion	2005	Improving
69-0030	White	2005	No Trend
69-0004	White Iron	2005	Improving
69-0375	Whiteface Reservoir	2005	No Trend
69-0434-02	Wynne	2005	No Trend

Scott County

LAKE ID	LAKE NAME	YEAR	TREND
70-0091	Cedar	2002	No Trend
70-0022	Cleary	1995	Improving
70-0069	Fish	2004	No Trend
70-0026	Lower Prior	2005	No Trend
70-0010	Murphy	1996	Improving
70-0054	Spring	2004	No Trend
70-0011	Unnamed	1996	No Trend
70-0072	Upper Prior	2005	Improving

Sherburne County

LAKE ID	LAKE NAME	YEAR	TREND
71-0069	Ann	2001	No Trend
71-0082	Big	2005	No Trend
71-0057	Birch	2003	No Trend
71-0146	Briggs	2005	No Trend
71-0123	Camp	2005	No Trend
71-0055	Elk	2005	No Trend
71-0141	Elk	2005	No Trend
71-0145	Julia	2005	No Trend
71-0159	Long	2005	No Trend
71-0081	Mitchell	2001	No Trend
71-0167	Round	2005	No Trend
71-0147	Rush	2005	No Trend
71-0040	Sandy	2005	Declining

Stearns County

LAKE ID	LAKE NAME	YEAR	TREND
73-0156	Becker	2002	Declining
73-0159	Big	2005	Improving
73-0106	Big Fish	2005	Improving
73-0117	Big Spunk	2005	No Trend
73-0102	Big Watab	2005	Improving
73-0088	Bolfing	2005	Improving
73-0133-01	Cedar Island (Main Bay)	2005	Improving
73-0006	Crooked	2005	No Trend
73-0150	Eden	2005	No Trend
73-0055	Grand	2005	Improving
73-0157	Horseshoe	2005	Improving
73-0086	Knaus	2005	Improving
73-0200-02	Koronis (Main)	2005	No Trend
73-0087	Krays	2005	No Trend
73-0139	Long	2005	No Trend
73-0004	Long	2005	No Trend
73-0215	Maria	2005	No Trend
73-0014	Marie	2001	No Trend
73-0128	Middle Spunk	2005	Improving
73-0147	North Brown's	2005	No Trend
73-0118	Pelican	2005	Improving
73-0196	Rice	2005	Improving
73-0072	Rossier	2005	No Trend
73-0249	Sylvia	2005	No Trend
73-0138	Two Rivers	2005	No Trend
73-0151	Vails	2004	No Trend
73-0070	Watab	2004	Declining
73-0089	Zumwalde	2005	Improving
75-0075	Perkins	2002	No Trend

Todd County

LAKE ID	LAKE NAME	YEAR	TREND
77-0035	Beauty	2003	Improving
77-0084-01	Big Birch (NE Portion)	2005	No Trend
77-0084-02	Big Birch (S Portion)	2005	No Trend
77-0023	Big Swan	2005	Improving
77-0128	Horseshoe	2005	No Trend
77-0105	Latimer	2005	No Trend

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Todd County Continued

LAKE ID	LAKE NAME	YEAR	TREND
77-0089	Little Birch	2005	No Trend
77-0027	Long	2005	No Trend
77-0149-01	Long (Main)	2005	No Trend
77-0007	Mound	2005	Improving
77-0215	Osakis	2005	No Trend
77-0150-02	Sauk (North Bay)	2005	No Trend
77-0150-01	Sauk (Sw Bay)	2005	No Trend

Wadena County

LAKE ID	LAKE NAME	YEAR	TREND
80-0030	Lower Twin	2005	No Trend
80-0037	Stocking	2005	Improving

Waseca County

LAKE ID	LAKE NAME	YEAR	TREND
81-0014-01	Clear	2005	No Trend
81-0095	Elysian	2005	No Trend
81-0015	Loon	1990	No Trend
81-0055	Reeds	2005	Improving
81-0003	St. Olaf	2005	No Trend

Washington County

LAKE ID	LAKE NAME	YEAR	TREND
82-0049	Big Carnelian	2005	Improving
82-0052	Big Marine	2004	Improving
82-0054	Bone	2005	No Trend
82-0163	Clear	2005	No Trend
82-0094	Colby	2004	No Trend
82-0101	Demontreville	2004	Improving
82-0106	Elmo	1994	Improving
82-0159	Forest	2005	No Trend
82-0059	Goose	2004	No Trend
82-0080	Halfbreed	2005	Improving
82-0104	Jane	2005	No Trend
82-0097	La	2002	No Trend
82-0023	Lily	2004	No Trend
82-0014	Little Carnelian	2004	Improving
82-0030	Long	2004	Improving
82-0130	Long	2005	No Trend
82-0021	Long	2004	No Trend
82-0089	Markgrafs	2004	Declining
82-0020	McKusick	2004	Improving
82-0103	Olson	2004	Improving
82-0122	Pine Tree	2003	No Trend
82-0092	Powers	2004	No Trend
82-0067	Sand	2004	No Trend
82-0162	Shields	2004	No Trend
82-0046	Square	2005	Declining
82-0001	St. Croix	2000	No Trend
82-0153	Sunset	2005	Improving
82-0115	Tanners	2003	No Trend
82-0474	Unnamed	1995	No Trend
82-0044	West Boot	2004	Improving
82-0167	White Bear	2004	Improving
82-0090	Wilmes	2004	No Trend

Wright County

LAKE ID	LAKE NAME	YEAR	TREND
86-0190	Ann	2001	No Trend
86-0284	Augusta	2004	Improving
86-0234	Bass	2005	No Trend
86-0023	Beebe	2005	No Trend
86-0281	Caroline	2003	No Trend
86-0227	Cedar	2005	No Trend
86-0011	Charlotte	2004	No Trend
86-0252	Clearwater (Lower)	1996	Improving
86-0252	Clearwater (Upper)	2005	Improving
86-0293	Collinwood	2005	No Trend
86-0041	Dean	1985	No Trend
86-0289	East Lake Sylvia	2005	Improving
86-0183	Fish	2005	No Trend
86-0217	Granite	2005	No Trend
86-0146	Ida	2005	Improving
86-0223	Indian	2005	No Trend
86-0288	John	2005	Improving
86-0106	Little Waverly	2004	No Trend
86-0282	Louisa	2005	No Trend
86-0134	Maple	2005	Improving
86-0009	Martha	2005	No Trend
86-0193	Mary	2005	No Trend
86-0229	Mink	2000	No Trend
86-0238	Nixon	2005	No Trend
86-0251	Pleasant	2005	No Trend
86-0053-02	Pulaski (Main Bay)	2005	No Trend
86-0120	Ramsey	2003	No Trend
86-0182	Rock	2005	No Trend
86-0297	Scott	1996	Declining
86-0230	Somers	2000	No Trend
86-0233	Sugar	2005	Declining
86-0298	Union	2005	No Trend
86-0279	West Lake Sylvia	2005	Improving

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Appendix III. Carlson's Trophic State Index
R.E. Carlson

TSI < 30 Classical Oligotrophy: Clear water, oxygen throughout the year in the hypolimnion, salmonid fisheries in deep lakes.

TSI 30 - 40 Deeper lakes still exhibit classical oligotrophy, but some shallower lakes will become anoxic in the hypolimnion during the summer.

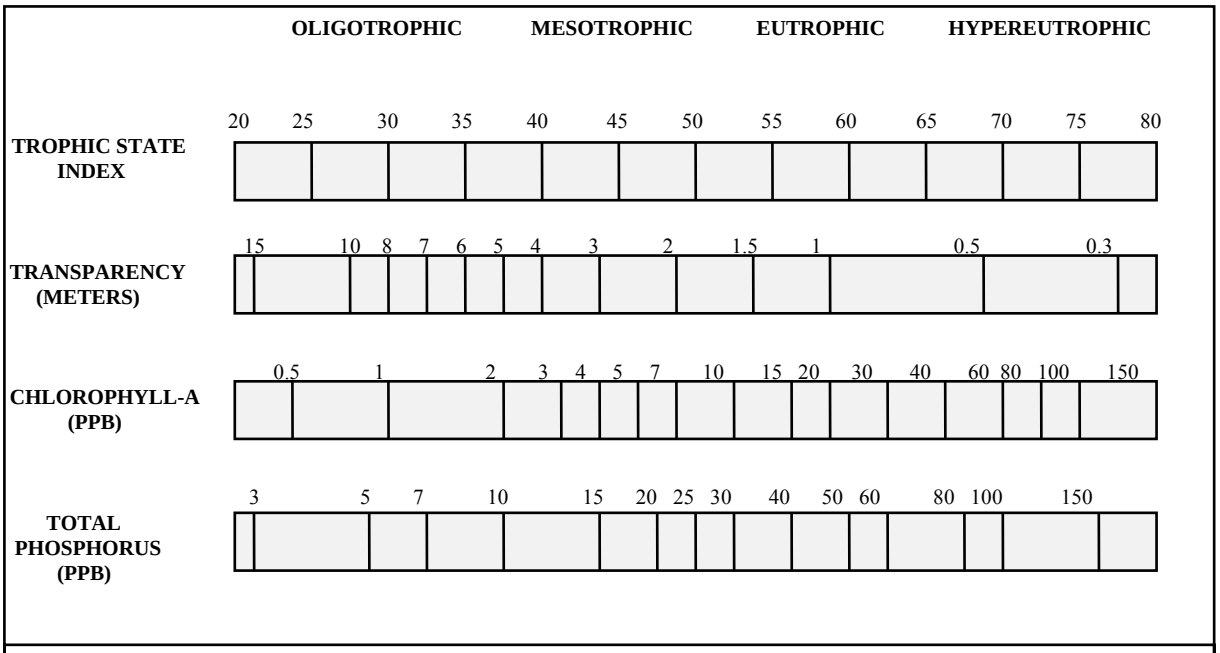
TSI 40 - 50 Water moderately clear, but increasing probability of anoxia in hypolimnion during summer.

TSI 50 - 60 Lower boundary of classical eutrophy: Decreased transparency, anoxic hypolimnia during the summer, macrophyte problems evident, and warm-water fisheries only.

TSI 60 - 70 Dominance of blue-green algae, algal scums probable, extensive macrophyte problems.

TSI 70 - 80 Heavy algal blooms possible throughout the summer, dense macrophyte beds, but extent limited by light penetration. Often would be classified as hypereutrophic.

TSI > 80 Algal scums, summer fish kills, few macrophytes, dominance of rough fish.



After Moore, l. and K. Thornton, [Ed.]1988. Lake and Reservior Restoration Guidance Manual. USEPA>EPA 440/5-88-002.

Appendix IV. Blueberry Lake 2005 Data.

Blueberry Lake Site 101

	TP (ppb)	Chl-*a* (ppb)	Secchi (feet)	Physical Condition (1-5)	Recreational Suitability (1-5)
*May - mid	50	12.4	4.1	3	3
June - early	48	9.5	5.0	2	1
June - late	62	31.2	3.5	1	2
July - early	58	37.2	2.7	2	2
*July - late	122	51.8	2.5	2	3
Aug. - early	151	50.7	1.8	4	4
Aug. - late	104	59.9	1.5	3	4
Sept. - early	128	69.9	1.4	2	2
*Sept.- late	129	36.6	1.3	4	4

*MPCA Collected Data.