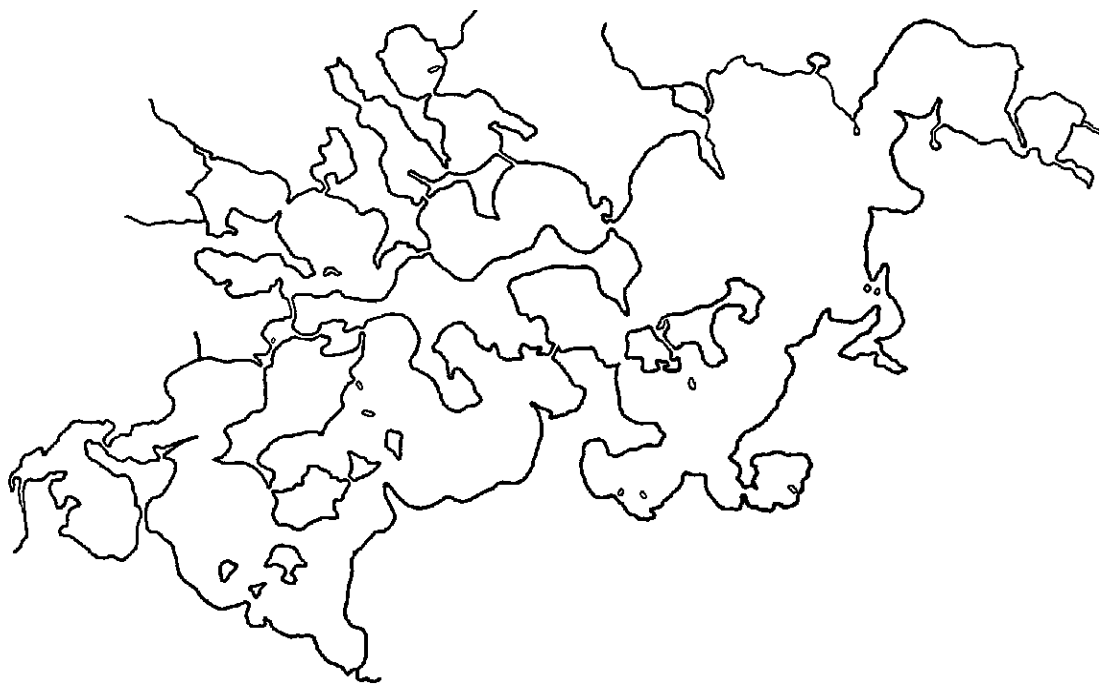


MINNESOTA DEPARTMENT OF NATURAL RESOURCES

SECTION OF FISHERIES

LAKE MINNETONKA
FISHERIES Special Assessment--2011

June 13 to June 30, 2011



Part of Federal Aid Project: F-29-R(P)-30

Compiled by:

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WEST METRO FISHERIES MANAGEMENT AREA

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MINNESOTA DEPARTMENT OF NATURAL RESOURCES

Section OF FISHERIES

FISHERIES POPULATION ASSESSMENT

Survey Date: June 13-June 30, 2011

Date Mapped: 1949

Map I.D.No.: B-0122

Lake Identification and Location

Name: LAKE MINNETONKA

Bay/Basin Station No.: 1-37

D.O.W. Watershed

(2)No.: 27-0133 (3)No.: 20

Management Meandered:

Area: 314 (4) Yes

(5)County(ies): Hennepin & Carver

Twnshp: 116,117N Range: 22,23,24W

Section: Various

(6) Nearest Town: The cities of
Minnetonka, Wayzata, Woodland,
Orono, Tonka Bay, Spring Park,
Minnetonka Beach, Greenwood,

Excelsior, Deephaven, Shorewood, Victoria,
Mound, and Minnetrista border the lake.



Figure: Outline map of Lake Minnetonka

(7) Accessibility:

(a) Designated Public Access (Location and Ownership): See table of access sites.

(b) Other access Areas: See table of access sites.

(8) Reason for Survey/Requested by:

Daryl Ellison, West Metro Area Fisheries Supervisor, requested survey to update lake file information. B.J. Bauer and Kristan Maccaroni completed the field collections. B.J. Bauer completed the survey report.

(9) Previous investigations, Surveys, and Dates: Fish Population Assessment 2011-2009, 2007,1970, 1982, 1992

Lake Survey 1997,1987,1977, 1949 Special Assessments 1998-2006,2008

Ice-Out TN Assessment 1997,1995,1992,1990,1987 Creel Census 1996, 1975

Lake Survey (Halsted's Bay) 1955 Lake Survey (Lower Lake) 1953

Game Lake Surveys:

Crystal Bay Marsh 1972,1949 Grays Bay Marsh 1972, 1949

Fagerness-Shadywood Marsh 1972,1949 French Lake Marsh 1972,1949

Seton Lake Marsh 1972,1949 Carsons Bay Marsh 1972,1949

Tanager (Mud) Lake Marsh 1978,1949 South Mound Marsh 1972,1949

Enchanted Island Marsh 1972,194 Ferndale (Orono) Marsh 1978,1949

Six Mile Creek Marsh 1972,1949 Libbs Lake 1972

Winter Ice-House Census 2003-1975,1967-1961,1958,1953,1952

Lake and Drainage Basin Characteristics and Use

(10)Lake Area: 14,004 acres¹ (Planimetered from 1949 map in 1990) D.O.W. 14,310 acres

(11)Maximum Depth: 113 ft. Schupp's Lake Type: 22

(12)Littoral Acres: 5,849 acres¹ Percent Littoral: 41.77

(13)Length of Shoreline: 106.12 miles² Greatest length: 13.33 mile(s)

¹Acres planimetered from 1949 sounding map by the DNR Aquatic Plant Management program in 1990. That data is used in this assessment so that standardized area is used in various fisheries management programs.

² Length of shoreline does not include channel or dredged harbor shoreline distances. Islands are included in the total.

Discussion

The 2011 Lake Minnetonka (27-0133-00) fisheries assessment was conducted June 13th through 30th. Annual sampling began in 1997 following a 20-year period when the fish community was sampled every five years. Sampling in Lake Minnetonka is divided between aggregations of basins (Figure 1, Table 2) that differ in their habitat and water chemistry. The Northwest Bays are most fertile, primarily because they are the first recipients of the majority of surface runoff from the watershed. The Upper Lakes are intermediate in fertility, while the Lower Lakes are least fertile (Figure 2).

Since 1997, assessments have been conducted to assess trends in growth, condition, relative abundance, reproduction, and size structure of northern pike, walleye, and yellow perch. To effectively sample the aforementioned species, 24 experimental gillnets are set at 12 historic locations (24-hr sets; 2 net sets at each location with approximately 7-9 days between net sets (Table 1, Figure 3)). Additionally, in May 2011, an electrofishing special assessment was conducted to evaluate the status of the largemouth bass population. The 2011 gillnet assessment revealed a diverse fish community (17 species) dominated (based on lbs/gillnet) by northern pike (19.4 lbs/net), walleye (12.1 lbs/net), and bluegill (9.8 lbs/net) (Table 5).

Water Quality

Water quality trends in Lake Minnetonka indicate a positive change in average Secchi depth (Table 3) and anoxic depth (< 2 ppm DO; Table 4) over time. Secchi depths in 2011 were generally shallower than 2010; however, the trends in Secchi depth for all three basins show a positive relationship (Figure 4). The same relationship is also true of historical anoxic depths (Figure 5). The Lower Lakes have the best water quality, followed by the Upper Lakes, then Northwest Bays.

Walleye

Lake Minnetonka is stocked with 6,446 pounds of fingerling walleye in even-numbered years. This equates to 1.1 lbs/littoral acre. Starting in the fall of 2010, walleye were and will continue to be stocked into all three basins of the lake. For more than 30 years, previous management limited walleye stocking locations to the Upper Lake and Lower Lake basins. Despite extensive stocking (Table 6), walleye abundance, as indicated by gillnet catch per unit effort, has remained at low levels (Tables 5, 8). The 2011 catch of 3.5 fish/net is higher than 2010 (2.9/net), but below the average from 1997-2010 (4.2 fish/net, Figure 6). Since 1970, 20 surveys have been conducted on Lake Minnetonka; of these, 13 (including 2011) had walleye catch rates below the first quartile (4.0 fish/net) for Class 22 lakes. On an entire-lake basis, walleye abundance is higher than previous years; however, catch rates differed by basin (Table 8). In Upper Lakes, there was a decrease from 3.3 walleye per net in 2010 to 2.8 per net in 2011. In both Lower Lakes and the Northwest Bays there was an increase in the number of walleye per net. In Lower Lakes, catch increased by 0.6 fish per net; however, in the Northwest Bays there was an increase of 2 walleye per net. 2010 appeared to be a low year for walleye abundance in the Northwest Bays but the 2011 catch indicated

abundance similar to 2008 and 2009. The average walleye gill-net catch per net from 1997-2010 was 4.2 in the Upper Lakes, 4.9 in the Lower Lakes, and 3.2 in the Northwest Bays. A comparison of northern pike and walleye catch rates suggests an inverse relationship (Figure 7). For example, the second lowest walleye catch rate (1.5 fish/net) occurred in 2005, three years after the second highest northern pike catch rate (17.7 fish/net). The high northern pike catch rate in 2002 represents a large population of northern pike in Lake Minnetonka that could have preyed upon the walleye fingerlings stocked in that year. Since walleye are recruited to gillnets by age 3, this predation was evident three years later (2005) when they were large enough to be sampled. This relationship is also evident 1999 through 2001.

The size of walleyes was the largest in recent history. The current survey (2011) was the first where walleye averaged over 20 inches in length. Walleye mean weight in 2011 (3.4 lbs) exceeded the third Lake Class quartile, when compared to other Class 22 lakes (Table 5), and this has been the case since at least 1992 (Table 9). Mean weight was highest in the Upper Lakes (4.6 lbs, Table 20), followed by the Northwest Bays (4.1 lbs, Table 25), and the Lower Lakes (2.4 lbs, Table 30). The general trend over time has been for the largest walleyes to be located in the Northwest Bays, followed by Upper Lakes, then Lower Lakes (Table 18). This is assumed to be related to the productivity of the basins and the amount of yellow perch available as prey. Historically, the physical condition of walleye in Lake Minnetonka has been good. A relative weight value of 100 indicates the fish is in the 75th percentile for weight, relative to its length (above average condition). In 2011, walleye relative weight (90) was near the average of the previous 14 years (92, Table 19). There was a significant relationship with relative weight and fish length (Linear Regression: $df = 80$; $t = -2.4$; $P = 0.02$). As walleye grew older, relative weight decreased.

Walleye averaged 20.3 inches in length and ranged from 7.3 to 28.5 inches (Table 10). Similar to mean weight, mean length was highest in the Upper Lakes (22.7 inches, Table 23), followed by Northwest Bays (22.2 inches, Table 28), then Lower Lakes (18.0 inches, Table 33). Historically, size structure indices have revealed Lake Minnetonka's walleye population consists of larger individuals, and this was again observed in 2011 (Proportional Size Distribution (PSD) = 84, Relative Size Distribution-Preferred (RSD-P) = 60, Table 18). The proportion of walleye 20 inches and larger (RSD-P) has increased every year for the last 5 and has doubled since 2006. The proportion of 15-inch and longer fish has fluctuated over the same time period (Table 18). PSD was highest in the Northwest Bays (100), then Upper Lakes (96), followed by the Lower Lakes (69).

Aging walleyes using otoliths allowed year-class inferences to be made (Tables 11, 14, 17). Consistent with previous assessments, walleye natural reproduction is limited. In 2011, 13 out of 81 (16.0%) walleye originated from a non-stocked year-class (Table 6). This was similar to 2010, when only 15.7 % were determined to be naturally reproduced. The stocked 2004 and 2006 year-classes continue to be strong, contributing to 42% of the walleye catch. Three year-olds in the 2008 year class also had a strong

presence at 21% of the catch. The largest individual captured was an age-15, 28.5-inch, 8.7-pound male.

In 2009, a catch curve analysis estimated walleye total annual mortality at 27.5% (Figure 8). Ages 3, 5, and 7-9 were used to calculate the catch curve. Total annual mortality was derived from the slope of a linear regression of the number of fish sampled in each age class. Constant recruitment is one of the major assumptions in catch curve analysis; however, since the walleye population in Lake Minnetonka is dependent upon stocking in alternate years this assumption is violated. To address this problem, the gillnet age frequency data was adjusted to accommodate for the number of walleyes stocked in each age class. For example, 22 walleyes were captured from the 2006 year-class when 125,337 fish were stocked. The gillnet catch of 22 age-3 walleyes was divided by 125,337 (number stocked in that year). The resulting value was then entered into the catch curve analysis for the number of age-3 walleyes sampled.

Walleye growth in Lake Minnetonka was similar to other lakes in the West Metro management area and historic walleye growth in Lake Minnetonka. Walleye reached an average length of 12.8 inches by age 3 and 19.7 inches by age 6 (Tables 11, 14). Comparing basins, walleye grew fastest in the Northwest Bays (Tables 11, 29), followed by Upper lakes (Tables 11, 24), then Lower lakes (Tables 11, 34).

Northern Pike

Consistent with recent assessments, northern pike were relatively high in abundance in 2011 (Table 5). The 2011 northern pike catch of 6.3 fish/net fell below the third Lake Class quartile for the third time since 1987, the first was 2009 (Tables 5, 8). Northern pike gill net catch has decreased every year since the historical high of 17.7/ net in 2002 (Table 8). Northern pike catch rates in the Lower Lakes (7.0 fish/net, Tables 8, 30) exceeded catch rates in both the Northwest Bays (6.3 fish/net, Tables 8, 25) and Upper Lakes (5.4 fish/net, Tables 8, 20). Northern pike average size (mean weight = 3.08 lbs) remained above the third quartile for class 22 lakes (Table 5). Sampled northern pike averaged 23.0 inches in length, which was smaller than in 2010 (25.4 inches) but was near the average of 22.7 inches, calculated from the previous 15 surveys. Northern pike mean length was similar in all three basins (Northwest Bays = 23.4 inches, Table 28; Upper Lakes = 23.9 inches, Table 23; Lower Lakes = 22.2 inches, Table 33). Relative weight (92) was fair and near the historic average (88, Table 19). Northern pike condition was similar among all three basins (Table 19). The largest individual captured was an age-9, 34.7-inch, 9.97-pound female.

Size structure indices revealed a quality northern pike population with a high proportion of large individuals (PSD=68; RSD-P=17, Table 18) with the best size structure found in the Upper Lakes (PSD=79, RSD-P=24, Table 18). Size structure for the entire lake was lower in 2011 than 2010 as evidenced by lower mean size and lower size structure indices (Table 18). The northern pike population in Lake Minnetonka may offer anglers the best chance at catching northern pike over 24 inches in the West Metro management area. The pike population lacks an abundance of small “hammer handle” fish with most between 20 and 29 inches (Table 10). Growth rates were slightly lower when compared to other West Metro Management

Area lakes (Table 15). On average, northern pike in Lake Minnetonka reached 20 inches by age 3 or 4 and 30 inches by age 7 or 8 (Table 12). Nine year-classes were sampled with the oldest individual age-9 (Table 17). In 2009, a catch curve analysis estimated northern pike total annual mortality at 36.1% (Figure 8). Ages 3-8 were used to calculate the catch curve.

Yellow Perch

Yellow perch relative abundance (31.7 fish/net) was high (near 3rd quartile) compared to other class 22 lakes (Table 5) and the historical average (12.6 fish/net). The trend since 2000 has been for increasing yellow perch gillnet catch, with the 2011 catch setting a historical high (Table 8). The 2011 catch was nearly twice that of 2010 (17.3 fish/net). Consistent with previous assessments, perch abundance was highest in the Northwest Bays (59.5/net), followed by Upper Lakes (38.0/net) then Lower Lakes (8.7/net). Gill net catch was up in all basins; however the increase was greatest in the Northwest Bays at nearly 100% (Table 8). In general, it appears there is an inverse trend of increasing yellow perch abundance with decreasing northern pike abundance.

Size structure indices (PSD = 8, Table 18) revealed a population consisting of small individuals (mean length = 6.7 inches, Table 10). Yellow perch size structure has been historically small in Lake Minnetonka with an average PSD of 3 since 1992 (Table 18). Despite a small size structure, yellow perch mean length was the highest since 2000 and PSD was the highest since 1992. The perch population in the Northwest Bays has a better size structure than the other two basins where average length (7.06 inches) and weight (0.16 lbs) are greater, as is PSD (18). Yellow perch relative weight (86) was fair in 2011, but lower than 2010 (90), and lower than the historical average of 90 (Table 19). Relative weight decreased significantly with length (Linear Regression: ($df = 115$; $t = -6.773$; $P < 0.001$) indicating a resource bottleneck may be occurring for larger, older individuals. Seven year-classes were sampled with the oldest individual captured age-8 (Table 17). The 2007 and 2008 year classes were evenly represented, together forming 87% of the population (Table 17). Yellow perch growth was slower on average than other lakes in the West Metro Management Area (Table 16). Comparing basins, yellow perch grew fastest in the Northwest Bays (Table 13), followed by Upper Lakes (Table 13), then Lower Lakes (Table 13). In 2009, a catch curve analysis estimated yellow perch total annual mortality at 46.5% (Figure 8). Ages 3-7 were used to calculate the catch curve.

Muskellunge

Muskellunge were not targeted during this assessment, but their population remains strong. Fish exceeding 50 inches and approaching 40 pounds are caught in Lake Minnetonka every year. Survival of stocked fingerling muskellunge is assumed to be very low due to the high abundance of largemouth bass and northern pike. Advanced fingerlings and yearlings have been used in recent years in attempt to improve survival rates of stocked fish. A research study is currently taking place in Lake Minnetonka comparing the

survival of stocked fingerling and yearling muskellunge. Stocked fish were tagged in 2008, 2009, 2011, and will be again in 2012. These fish were tagged with an external spaghetti-type tag near the dorsal fin. These tags are yellow in color and include a six-digit number. Angler reports of captured tagged muskellunge are essential to the success of this project. If you catch a tagged muskellunge please record the tag number and length of fish and report the catch via phone, email or the Tagged Fish Reporting page within the MNDNR website. Please DO NOT remove the tag. Please contact the West Metro Fisheries Office with questions. Practicing CPR (Catch, Photo, and Release) is essential to maintaining the trophy muskellunge fishery found in Lake Minnetonka.

Largemouth Bass

The largemouth bass population in Lake Minnetonka has a reputation for quality fishing. Numerous bass tournaments are held on the lake every year. A nighttime boat electrofishing assessment was performed during May 2011 targeting largemouth bass. A total of 385 largemouth bass were sampled in 11 electrofishing transects, equating to 75.4 bass per hour of on time. Catch rates were similar to the 2009 assessment when 73.2 bass per hour were sampled. These catch rates are above average for area lakes. The size structure of the largemouth bass population in Lake Minnetonka is well balanced ($PSD=59$, Tables 35, 36) and the fish are in good physical condition ($Wr = 95$, Table 36). It appeared the larger fish tended to be in the best condition (Table 36). Largemouth bass averaged 11.8 inches (Table 35) and 1.04 lbs, which is lower than in 2009 when fish averaged 13.5 inches and 1.5 lbs. The largest bass sampled was 20.9 inches long and 4.9 lbs. Fish from the 1999 through 2009 year classes were present, indicating consistent reproduction and recruitment (Table 37). Age-3 bass from the 2008 year class were most abundant (25%), followed by the 2007 (23% of the total) and 2005 (9.4% of the total) year classes. Growth was (Table 38) slower than average compared with other West Metro Area lakes. Largemouth bass reached 14 inches by age 7 and 18 inches by age 11 (Table 37). No smallmouth bass were sampled during the spring electrofishing assessment.

Numerous bass tournaments are held on the lake every year. These tournament are held by permit only and fish data must be turned into the DNR. In 2011, 11 bass tournaments were held. A total of 1,136 tournament anglers caught 3,854 largemouth bass and 38 smallmouth bass. Average size was 2.5 lbs and the largest recorded was 6.9 lbs. Since bass anglers target the largest individuals in a population, it is common for angling results to yield larger size fish, on average, than electrofishing. Additionally, individual tournaments may enact their own minimum size limit, thus only measuring larger size fish. The electrofishing assessment targeted all sizes of bass.

Other Species

Bluegill and black crappie are abundant in Lake Minnetonka; however, gill nets are not reliable indicators of their relative abundance (Tables 5, 7). The consistent natural reproduction and high

recruitment of these species will ensure quality angling opportunities. Black bullhead, bowfin (dogfish), common carp, green sunfish, golden shiner, hybrid sunfish, pumpkinseed sunfish, rock bass, smallmouth bass, white sucker, and yellow bullhead were also captured in low numbers during the 2011 assessment (Tables 5, 7). Smallmouth bass and rock bass were found only in the Lower Lakes.

Invasive Species

Eurasian water milfoil and curly leaf pondweed are found in high abundance throughout the lake and in 2010 zebra mussels and flowering rush were found to be present for the first time. Lake Minnetonka receives heavy recreational use, so potential for the spread of invasive species into and out of the lake is high. Anglers and boaters should take the precautions necessary to prevent the further spread of all invasive species.

The shoreline and watershed of Lake Minnetonka is highly developed and puts stress on the lake's aquatic habitat and ecosystem integrity. Large docks, boating platforms, and man-made beaches have the potential to destroy vital habitat for fish and wildlife. Environmentally friendly development practices, such as shoreline buffer strips of natural vegetation, are necessary to maintain the current water quality of Lake Minnetonka. Shoreline development, invasive species, and the fish diseases Viral Hemorrhagic Septicemia (VHS) and Largemouth Bass Virus should be a concern to everyone who enjoys lake recreation.

Status of the Fishery

The 2011 Lake Minnetonka fisheries assessment was conducted June 13th through 30th. Annual sampling began in 1997 following a 20-year period when the fish community was sampled every five years. Sampling in Lake Minnetonka is divided between aggregations of basins that differ in their habitat and water chemistry. The Northwest Bays are most fertile, primarily because they are the first recipients of the majority of surface runoff from the watershed. The Upper Lakes are intermediate in fertility, while the Lower Lakes are least fertile.

Since 1997, assessments have been conducted to assess trends in growth, condition, relative abundance, reproduction, and size structure of northern pike, walleye, and yellow perch. To effectively sample the aforementioned species, 24 experimental gillnets are set at 12 historic locations (24-hr sets; 2 net sets at each location with approximately 7-9 days between net sets). Additionally, in May 2011, an electrofishing special assessment was conducted to evaluate the status of the largemouth bass population. The 2011 gillnet assessment revealed a diverse fish community (17 species) dominated (based on lbs/gillnet) by northern pike (19.4 lbs/net), walleye (12.1 lbs/net), and bluegill (9.8 lbs/net).

Water Quality

Water quality trends in Lake Minnetonka indicate a positive change in average Secchi depth and anoxic depth (< 2 ppm DO) over time. Secchi depths in 2011 were generally shallower than 2010; however, the trends in Secchi depth for all three basins show a positive relationship. The same relationship is also true of historical anoxic depths. The Lower Lakes have the best water quality, followed by the Upper Lakes, then Northwest Bays.

Walleye

Lake Minnetonka is stocked with 6,446 pounds of fingerling walleye in even-numbered years. This equates to 1.1 lbs/littoral acre. Starting in the fall of 2010, walleye were and will continue to be stocked into all three basins of the lake. For more than 30 years, previous management limited walleye stocking locations to the Upper Lake and Lower Lake basins. Despite extensive stocking, walleye abundance, as indicated by gillnet catch per unit effort, has remained at low levels. The 2011 catch of 3.5 fish/net is higher than 2010 (2.9/net), but below the average from 1997-2010 (4.2 fish/net). Since 1970, 20 surveys have been conducted on Lake Minnetonka; of these, 13 (including 2011) had walleye catch rates below the 25th percentile (4.0 fish/net) for Class 22 lakes. On an entire-lake basis, walleye abundance is higher than previous years; however, catch rates differed by basin. In Upper Lakes, there was a decrease from 3.3 walleye per net in 2010 to 2.8 per net in 2011. In both Lower Lakes and the Northwest Bays there was an increase in the number of walleye per net. In Lower Lakes, catch increased by 0.6 fish per net, in the

Northwest Bays there was an increase of 2 walleye per net. 2010 appeared to be a low year for walleye abundance in the Northwest Bays but the 2011 catch indicated abundance similar to 2008 and 2009. The average walleye gill-net catch per net from 1997-2010 was 4.2 in the Upper Lakes, 4.9 in the Lower Lakes, and 3.2 in the Northwest Bays. A comparison of northern pike and walleye catch rates suggests an inverse relationship. For example, the second lowest walleye catch rate (1.5 fish/net) occurred in 2005, three years after the second highest northern pike catch rate (17.7 fish/net). The high northern pike catch rate in 2002 represents a large population of northern pike in Lake Minnetonka that could have preyed upon the walleye fingerlings stocked in that year. Since walleye are recruited to gillnets by age 3, this predation was evident three years later (2005) when they were large enough to be sampled. This relationship is also evident 1999 through 2001.

The size of walleyes was the largest in recent history. The current assessment (2011) was the first where walleye averaged over 20 inches in length. Walleye mean weight in 2011 (3.4 lbs) exceeded the 75th percentile when compared to other Class 22 lakes, and this has been the case since at least 1992. Mean weight was highest in the Upper Lakes (4.6 lbs), followed by the Northwest Bays (4.1 lbs), and the Lower Lakes (2.4 lbs). The general trend over time has been for the largest walleyes to be located in the Northwest Bays, followed by Upper Lakes, then Lower Lakes. This is assumed to be related to the productivity of the basins and the amount of yellow perch available as prey. Historically, the physical condition of walleye in Lake Minnetonka has been good. A relative weight value of 100 indicates the fish is in the 75th percentile for weight, relative to its length (above average condition). In 2011, walleye relative weight (90) was near the average of the previous 14 years (92). There was a significant relationship with relative weight and fish length. As walleye grew older, relative weight decreased.

Walleye averaged 20.3 inches in length and ranged from 7.3 to 28.5 inches. Similar to mean weight, mean length was highest in the Upper Lakes (22.7 inches), followed by Northwest Bays (22.2 inches), then Lower Lakes (18.0 inches). Historically, size structure indices have revealed Lake Minnetonka's walleye population consists of larger individuals, and this was again observed in 2011. The proportion of walleye 20 inches and larger has increased every year for the last 5 and has doubled since 2006. The proportion of 15-inch and longer fish has fluctuated over the same time period. Size structure was highest in the Northwest Bays, then Upper Lakes, followed by the Lower Lakes.

Aging walleyes using otoliths allowed year-class inferences to be made. Consistent with previous assessments, walleye natural reproduction is limited. In 2011, 13 out of 81 (16.0%) walleye originated from a non-stocked year-class. This was similar to 2010, when only 15.7 % were determined to be naturally reproduced. The stocked 2004 and 2006 year-classes continue to be strong, contributing to 42% of the walleye catch. Three year-olds in the 2008 year class also had a strong presence at 21% of the catch. The largest individual captured was an age-15, 28.5-inch, 8.7-pound male. In 2009, a catch curve analysis

estimated walleye total annual mortality at 27.5%.

Walleye growth was similar to other lakes in the West Metro Management Area and historic walleye growth in Lake Minnetonka. Walleye reached an average length of 12.8 inches by age 3 and 19.7 inches by age 6. Comparing basins, walleye grew fastest in the Northwest Bays, followed by Upper lakes, then Lower lakes.

Northern Pike

Consistent with recent assessments, northern pike were relatively high in abundance in 2011. The 2011 northern pike catch of 6.3 fish/net fell below the 75th percentile for Class 22 lakes for the third time since 1987, the first was 2009. Northern pike gill net catch has decreased every year since the historical high of 17.7/ net in 2002. Northern pike catch rates in the Lower Lakes (7.0 fish/net) exceeded catch rates in both the Northwest Bays (6.3 fish/net) and Upper Lakes (5.4 fish/net). Northern pike average size (mean weight = 3.08 lbs) remained above the 75th percentile for Class 22 lakes. Sampled northern pike averaged 23.0 inches in length, which was smaller than in 2010 (25.4 inches) but was near the average of 22.7 inches, calculated from the previous 15 surveys. Northern pike mean length was similar in all three basins (Northwest Bays = 23.4 inches; Upper Lakes = 23.9 inches; Lower Lakes = 22.2 inches). Relative weight (92) was fair and near the historic average (88). Northern pike condition was similar among all three basins. The largest individual captured was an age-9, 34.7-inch, 9.97-pound female.

Size structure indices revealed a quality northern pike population consisting of a high proportion of large individuals, with the best size structure found in the Upper Lakes. Size structure for the entire lake was lower in 2011 than 2010 as evidenced by lower mean size and lower size structure indices. The northern pike population in Lake Minnetonka may offer anglers the best chance at catching northern pike over 24 inches in the West Metro management area. The pike population is not overpopulated with small “hammer handle” fish, most are between 20 and 29 inches. Growth rates were slightly lower when compared to other West Metro Management Area lakes. On average, northern pike in Lake Minnetonka reached 20 inches by age 3 or 4 and 30 inches by age 7 or 8. Nine year-classes were sampled with the oldest individual age 9. In 2009, a catch curve analysis estimated northern pike total annual mortality at 36.1%. Ages 3-8 were used to calculate the catch curve.

Yellow Perch

Yellow perch relative abundance (31.7 fish/net) was high (near the 75th percentile) compared to other Class 22 lakes and the historical average (12.6 fish/net). The trend since 2000 has been for increasing yellow perch gillnet catch, with the 2011 catch setting a historical high. The 2011 catch was nearly twice that of 2010 (17.3 fish/net). Consistent with previous assessments, perch abundance was highest in the Northwest Bays (59.5/net), followed by Upper Lakes (38.0/net) then Lower Lakes (8.7/net). Gill net catch was up in all basins; however the increase was greatest in the Northwest Bays at nearly 100%. In general, it

appears there is an inverse trend of increasing yellow perch abundance with decreasing northern pike abundance.

Size structure indices revealed a population consisting of small individuals (mean length = 6.7 inches). Yellow perch size structure has been historically small in Lake Minnetonka. Despite a small size structure, yellow perch mean length was the highest since 2000. The perch population in the Northwest Bays has a better size structure than the other two basins, where average length (7.06 inches) and weight (0.16 lbs) are greater. Yellow perch relative weight (86) was fair in 2011, but lower than 2010 (90), and lower than the historical average of 90. Relative weight decreased significantly with length, indicating a resource bottleneck may be occurring for larger, older individuals. Seven year-classes were sampled with the oldest individual captured age 8. The 2007 and 2008 year classes were evenly represented, together forming 87% of the population. Yellow perch growth was slower on average than other lakes in the West Metro Management Area. Comparing basins, yellow perch grew fastest in the Northwest Bays, followed by Upper Lakes, then Lower Lakes. In 2009, a catch curve analysis estimated yellow perch total annual mortality at 46.5%. Ages 3-7 were used to calculate the catch curve.

Muskellunge

Muskellunge were not targeted during this assessment, but their population remains strong. Fish exceeding 50 inches and approaching 40 pounds are caught in Lake Minnetonka every year. Survival of stocked fingerling muskellunge is assumed to be very low due to the high abundance of largemouth bass and northern pike. Advanced fingerlings and yearlings have been used in recent years in attempt to improve survival rates of stocked fish. A research study is currently taking place in Lake Minnetonka investigating the survival of stocked fingerling and yearling muskellunge. Stocked fish were tagged in 2008, 2009, 2011, and will be again in 2012. These fish were tagged with an external spaghetti-type tag near the dorsal fin. These tags are yellow in color and include a six-digit number. Angler reports of captured tagged muskellunge are essential to the success of this project. If you catch a tagged muskellunge please record the tag number and length of fish and report the catch via phone, email or the Tagged Fish Reporting page within the MNDNR website. Please DO NOT remove the tag. Please contact the West Metro Fisheries Office with questions. Practicing CPR (Catch, Photo, and Release) is essential to maintaining the trophy muskellunge fishery found in Lake Minnetonka.

Largemouth Bass

The largemouth bass population in Lake Minnetonka has a reputation for quality fishing. A nighttime boat electrofishing assessment was performed during May 2011 targeting largemouth bass. A total of 385 largemouth bass were sampled in 11 electrofishing transects, equating to 75.4 bass per hour of on time. Catch rates were similar to the 2009 assessment when 73.2 bass per hour were sampled. These catch rates are above average for area lakes. The size structure of the largemouth bass population in Lake

Minnetonka is well-balanced and the fish are in good physical condition (Relative weight = 95). It appeared the larger fish tended to be in the best condition. Largemouth bass averaged 11.8 inches and 1.04 lbs, which is lower than in 2009 when fish averaged 13.5 inches and 1.5 lbs. The largest bass sampled was 20.9 inches long and 4.9 lbs. Fish from the 1999 through 2009 year classes were present, indicating consistent reproduction and recruitment. Age-3 bass from the 2008 year class were most abundant (25% of the total), followed by the 2007 (23% of the total) and 2005 (9.4% of the total) year classes. Growth was slower than average compared with other West Metro Area lakes. Largemouth bass reached 14 inches by age 7 and 18 inches by age 11. No smallmouth bass were sampled during the spring electrofishing assessment.

Numerous bass tournaments are held on the lake every year. Bass tournament are held by permit only and fish data must be turned into the DNR. In 2011, 11 bass tournaments were held. A total of 1,136 tournament anglers caught 3,854 largemouth bass and 38 smallmouth bass. Average size was 2.5 lbs and the largest recorded was 6.9 lbs. Since bass anglers target the largest individuals in a population, it is common for angling results to yield larger size fish, on average, than electrofishing. Additionally, individual tournaments may enact their own minimum size limit, thus only measuring larger size fish. The electrofishing assessment targeted all sizes of bass.

Other Fish

Bluegill and black crappie are abundant in Lake Minnetonka; however, gill nets are not reliable indicators of their relative abundance. The consistent natural reproduction and high recruitment of these species will ensure quality angling opportunities. Black bullhead, bowfin (dogfish), common carp, green sunfish, golden shiner, hybrid sunfish, pumpkinseed sunfish, rock bass, smallmouth bass, white sucker, and yellow bullhead were also captured in low numbers during the 2011 assessment. Smallmouth bass and rock bass were found only in the Lower Lakes.

Invasive Species

Eurasian water milfoil and curly leaf pondweed are found in high abundance throughout the lake and in 2010 zebra mussels and flowering rush were found to be present for the first time. Lake Minnetonka receives heavy recreational use, so potential for the spread of invasive species into and out of the lake is high. Anglers and boaters should take the precautions necessary to prevent the further spread of all invasive species.

The shoreline and watershed of Lake Minnetonka is highly developed and puts stress on the lake's aquatic habitat and ecosystem integrity. Large docks, boating platforms, and man-made beaches have the potential to destroy vital habitat for fish and wildlife. Environmentally friendly development practices, such as shoreline buffer strips of natural vegetation, are necessary to maintain the current water quality of Lake Minnetonka. Shoreline development, invasive species, and the fish diseases Viral Hemorrhagic Septicemia (VHS) and Largemouth Bass Virus should be a concern to everyone who enjoys lake recreation.

Figure 1: Location and numbering of individual sampling bays on Lake Minnetonka.



KEY TO NUMBERED BAYS OF LAKE MINNETONKA (27-0133)

- | | |
|----------------------------|----------------------------------|
| 1 Halsted's Bay | 20 Maxwell Bay |
| 2 Priest's Bay | 21 Lafayette Bay |
| 3 Cook's Bay | 22 Smith's Bay |
| 4 West Upper Lake | 23 Brown's Bay |
| 5 South Upper Lake | 24 Wayzata Bay |
| 6 Smithtown Bay | 25 Gray's Bay |
| 7 Phelps's Bay | 26 Robinson's Bay |
| 8 East Upper Lake | 27 St. Louis Bay |
| 9 Carman's/Old Channel Bay | 28 Carsons Bay |
| 10 Spring Park Bay | 29 St. Alban's Bay |
| 11 Black Lake | 30 Excelsior Bay |
| 12 Emerald Lake | 31 Gideon's Bay |
| 13 Seton Lake | 32 South Lower Lake & Echo Bay |
| 14 Harrison's Bay | 33W North Lower Lake (West half) |
| 15 Jennings's Bay | 33E North Lower Lake (East half) |
| 16 West Arm Bay | 34 Forest Lake (27-0139) |
| 17 Crystal Bay | 35 Libb's Lake (27-0085) |
| 18 North Arm Bay | 36 Peavy Lake (27-0138) |
| 19 Stubb's Bay | 37 Tanager Lake (27-0141) |

Lake: MINNETONKA

Bay/Basin: ENTIRE LAKE

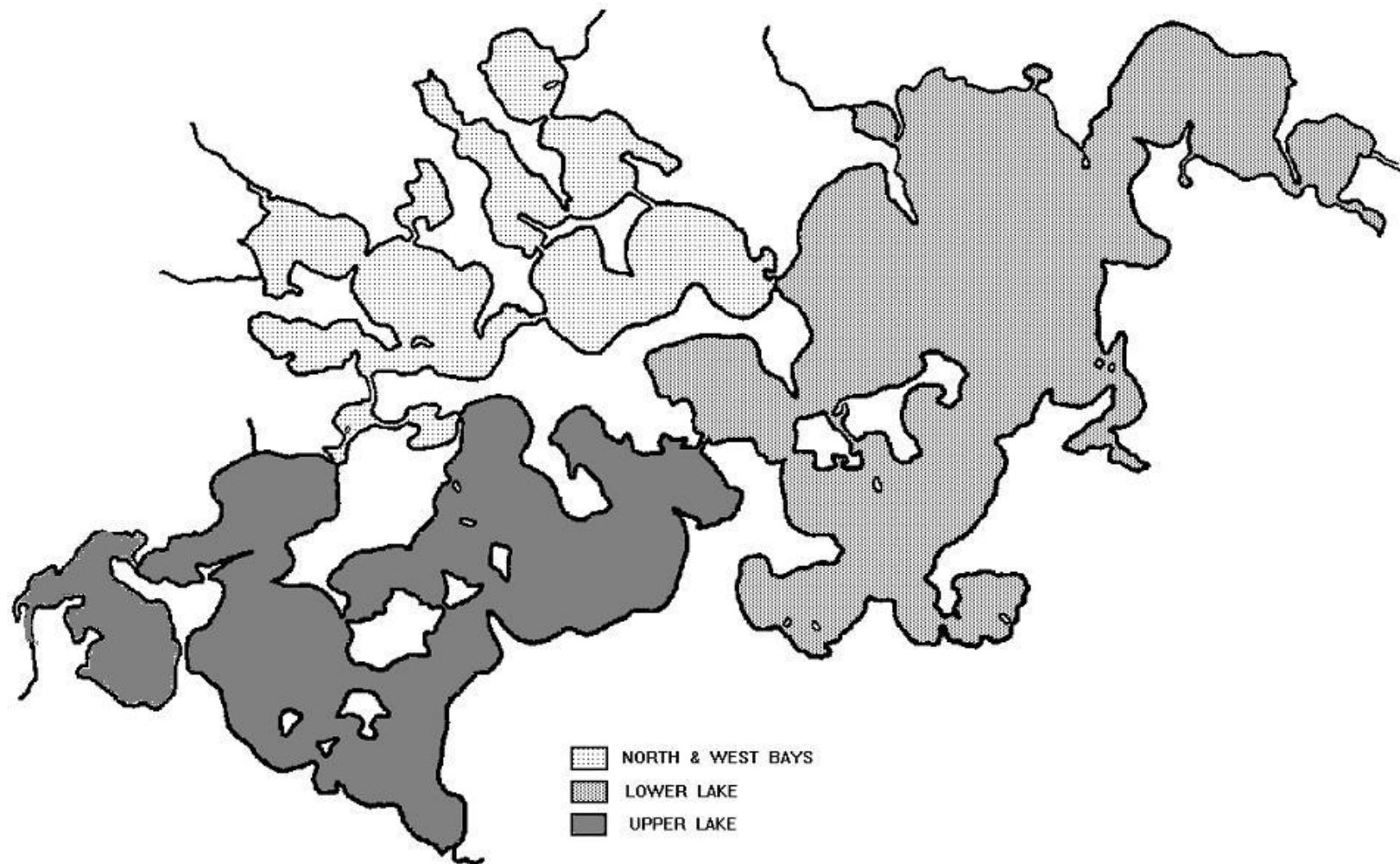


Figure 2: Location of the three major sampling basins of Lake Minnetonka.

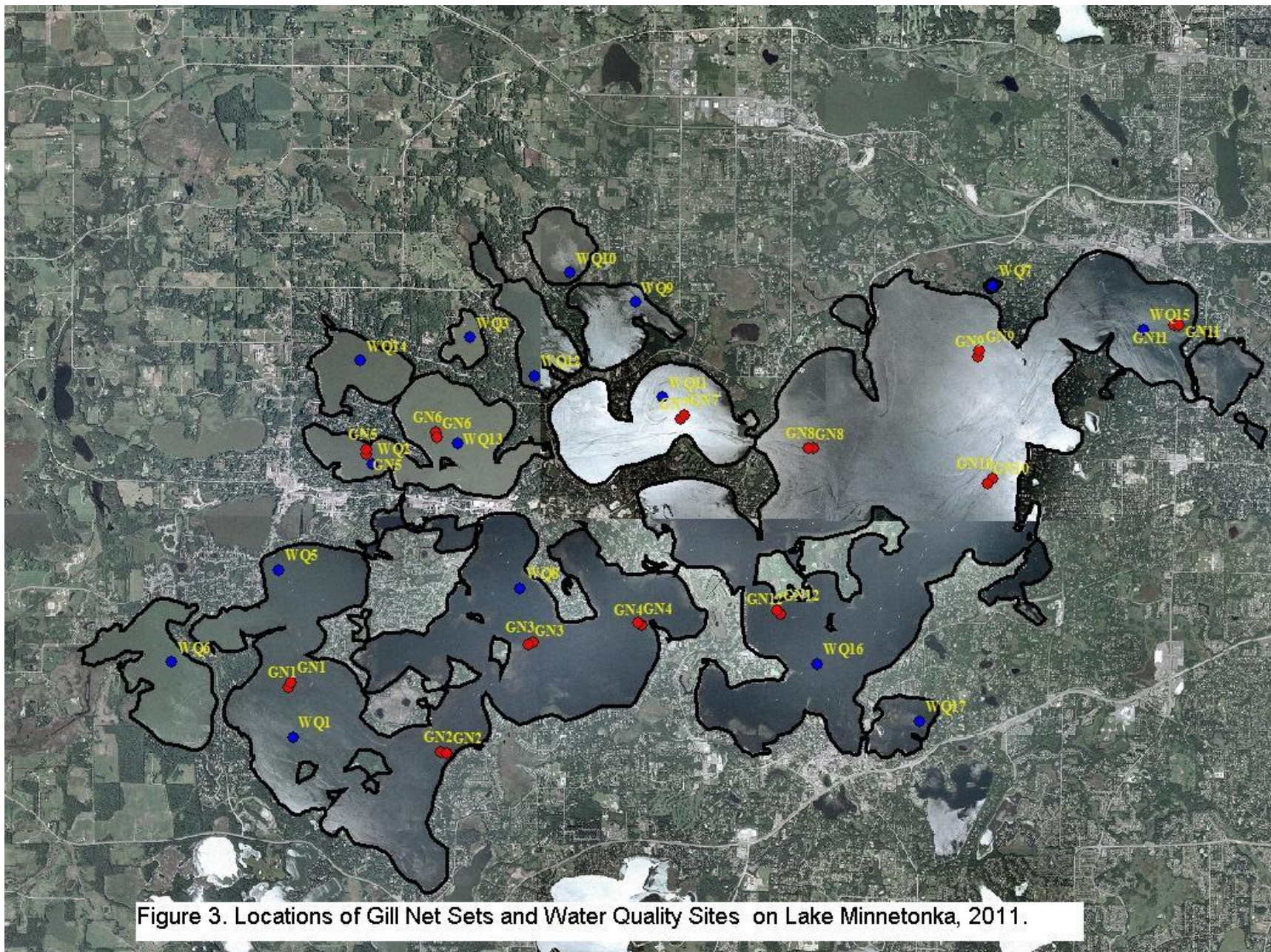


Figure 3. Locations of Gill Net Sets and Water Quality Sites on Lake Minnetonka, 2011.

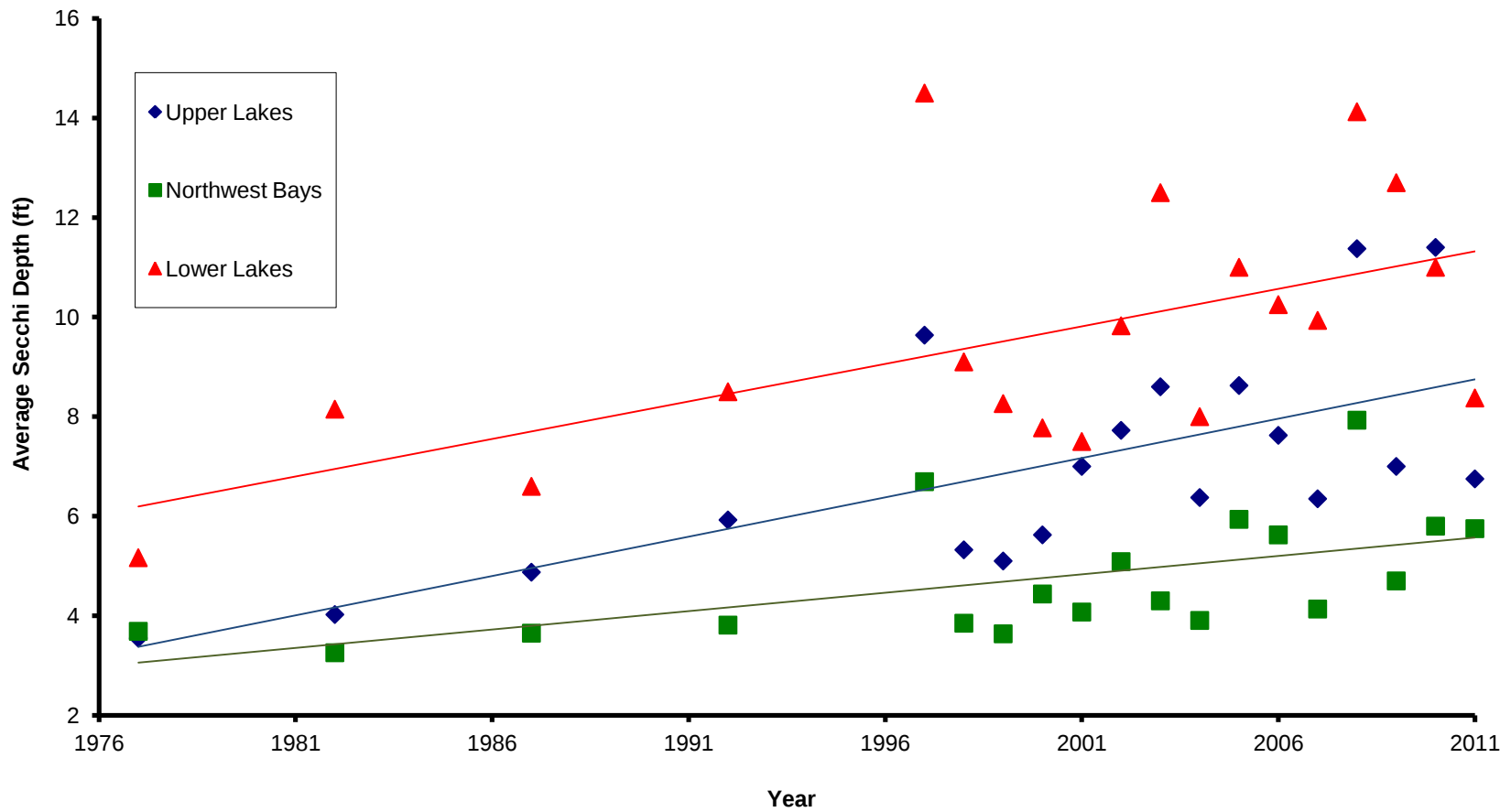


Figure 4. Average Secchi Depth Readings in the Three Basins of Lake Minnetonka, 1977-2011

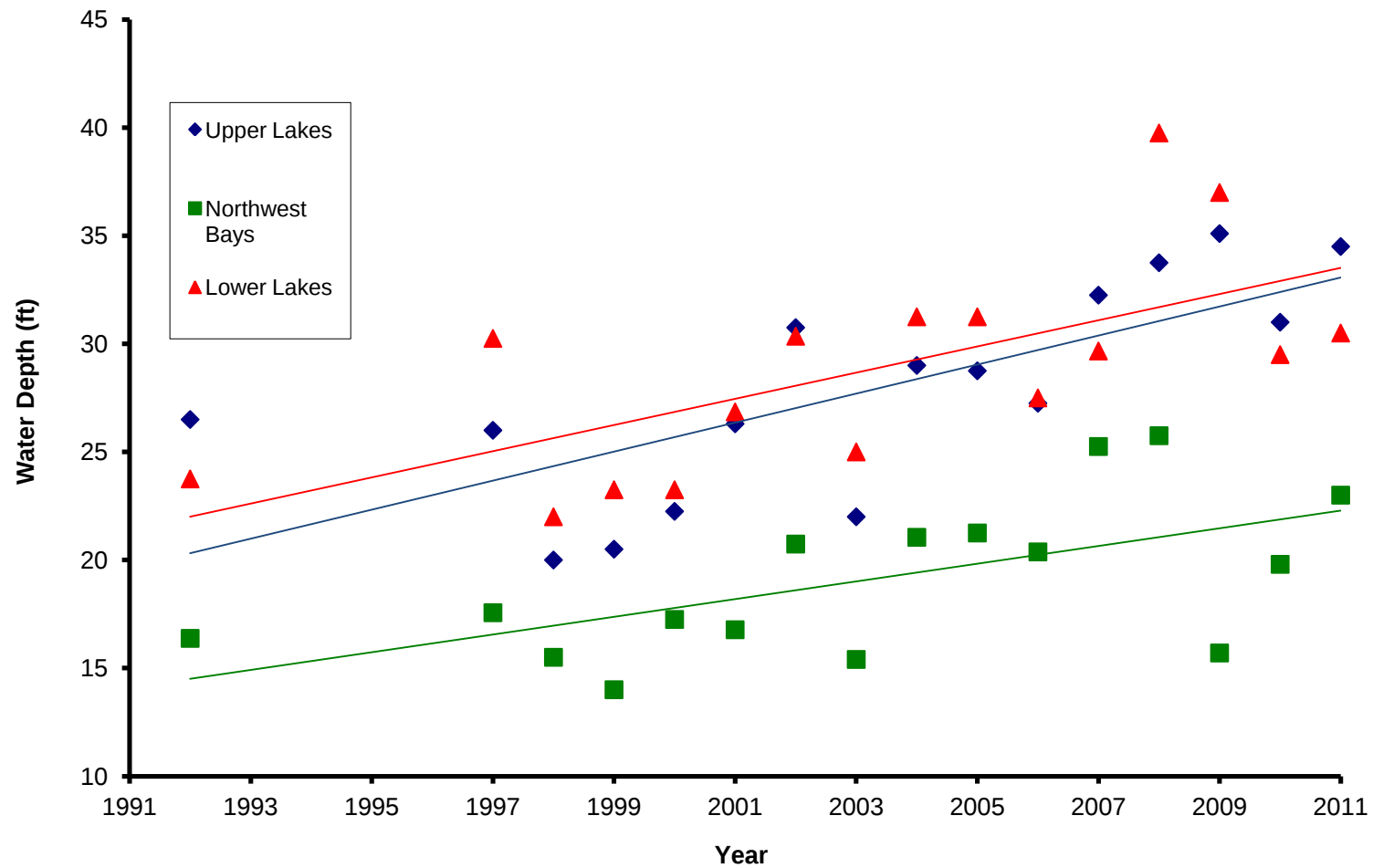


Figure 5. Average Minimum Water Depth in the Three Basins of Lake Minnetonka Where Dissolved Oxygen is Below 2.0 Parts per Million, 1992-2011

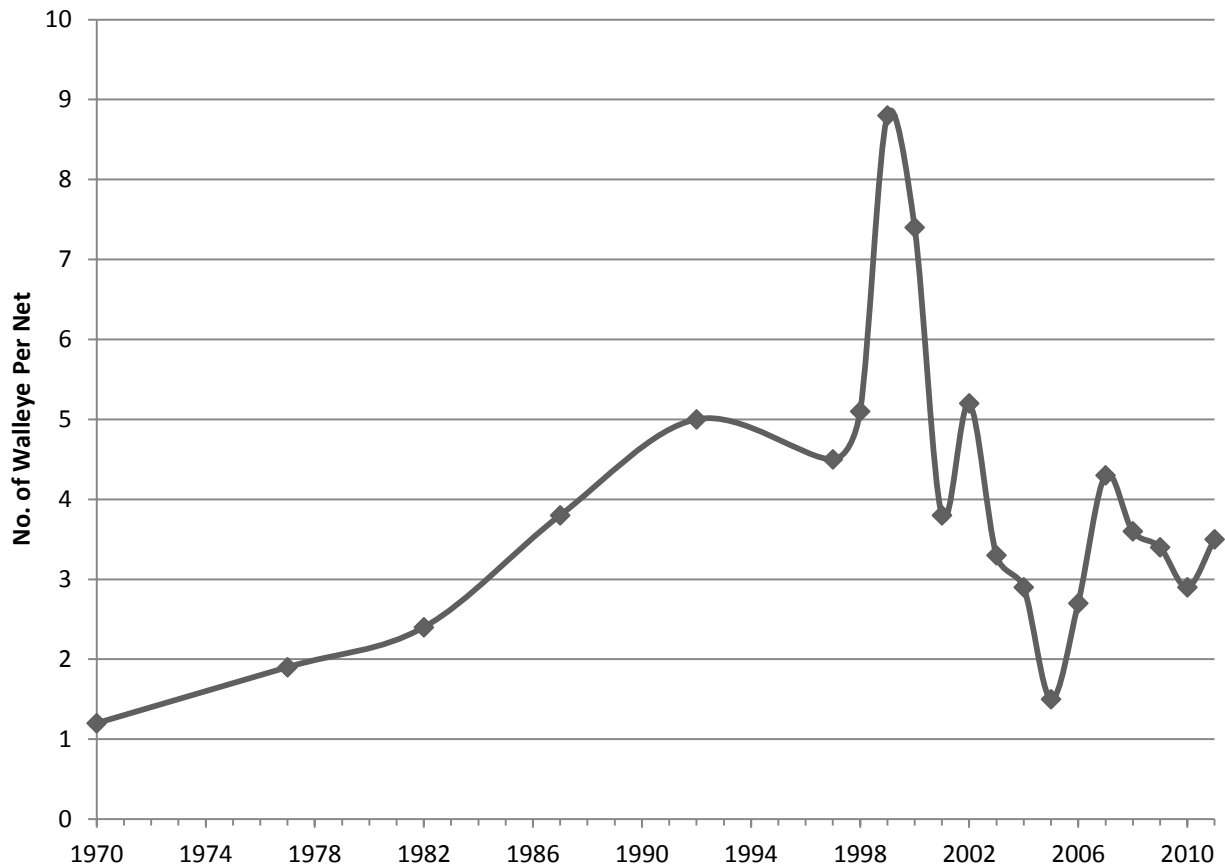


Figure 6. Historic walleye gillnet catch rates in Lake Minnetonka, Hennepin County, 1970-2011. The walleye stocking rate doubled in Lake Minnetonka in 2001, but resumed 1.1/ littoral acre thereafter

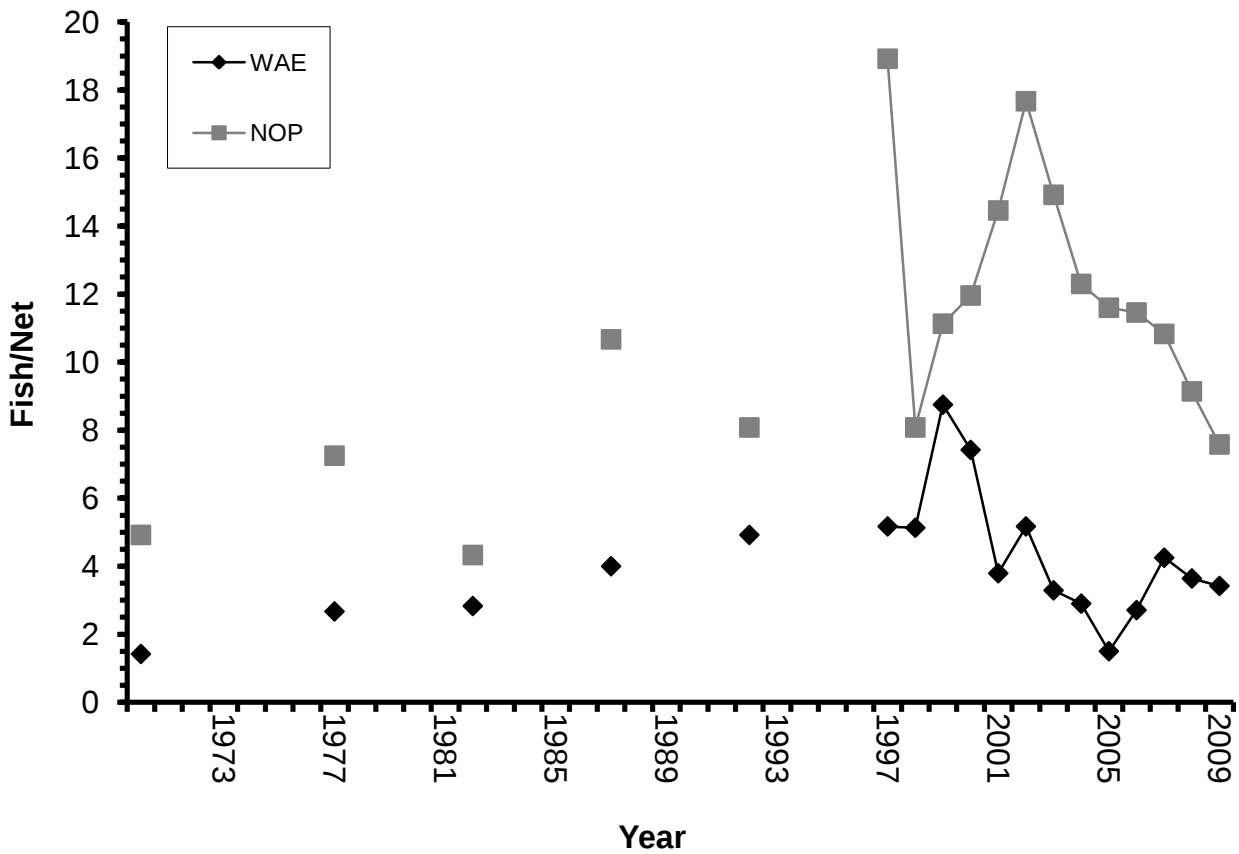


Figure 7. Historic northern pike (NOP) and walleye (WAE) gillnet catch rates from common nets in Lake Minnetonka, Hennepin County, 1970-2009. The walleye stocking rate doubled in Lake Minnetonka in 2001, but resumed 1.1/ littoral acre thereafter

Species	Vital Rate		
	Z	S	A
Walleye	0.322	0.725	0.275
Northern pike	0.447	0.639	0.361
Yellow perch	0.626	0.535	0.465

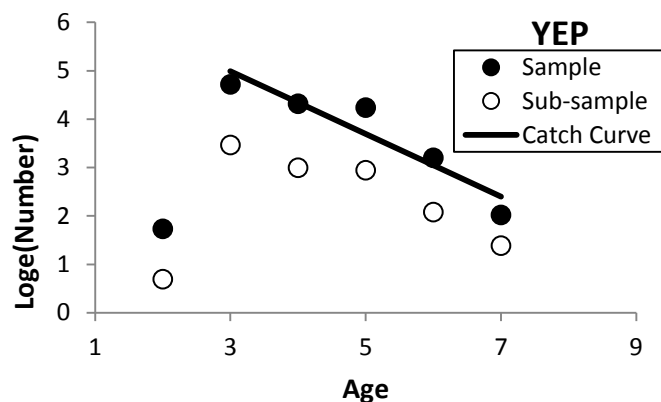
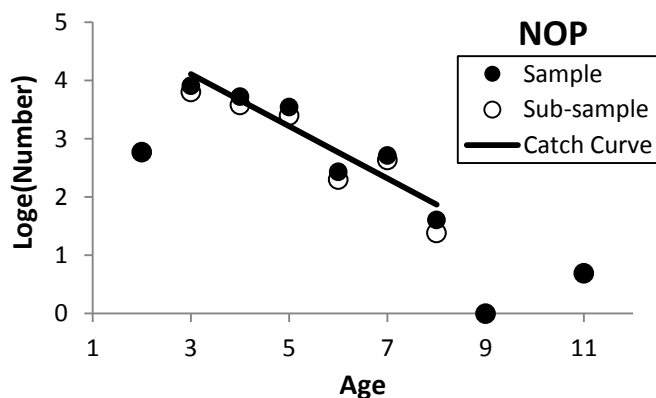
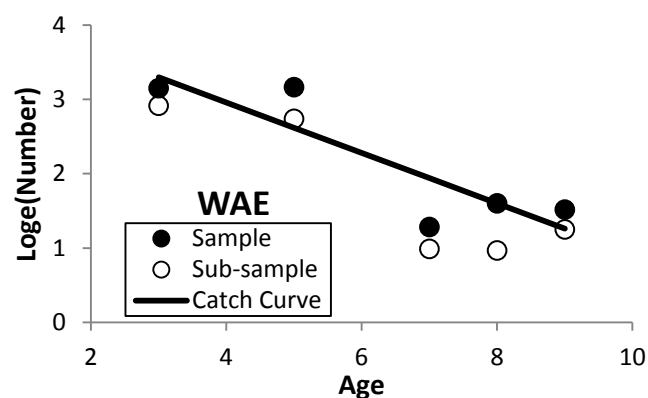


Figure 8. Instantaneous total mortality (Z), annual survival (S), and annual mortality (A) of walleye, northern pike and yellow perch derived from gillnets in Lake Minnetonka, Hennepin County, Minnesota in 2009

Table 1. Description of Gill Net Target Locations used on Lake Minnetonka

Upper Lakes

- GN1: Crotch of buoys on West side, just South of West buoy, go toward white house right of series of stalls.
- GN2: Undeveloped shore, 1 boat lift west of triple stall, go toward brown house w/ tan roof.
- GN3: Line up with tall cottonwood on island go East to tip of Casco Point.
- GN4: South side off underwater reef point, due West of point (land) tip go W towards house with flat roof.

Northwest Bays

- GN5: Rocks on point to beach to Southwest.
- GN6: Start close to outer buoy; go towards tip of point to Northwest.
- GN7: Between buoys on West side of hump toward water tower.

Lower Lakes

- GN8: North side of buoyed channel, head East.
- GN9: Between buoys on West side, follow spine toward white house on point.
- GN10: South side of hump, between water towers (blue one).
- GN11: Big lawn on east to big lawn across long bay.
1st set, start at top of saddle.
2nd set may have to start on east side of hump.
- GN12: Start between buoys on Southeast side, head East/Southeast toward Gale Island. Shallow to North, deeper to South

Table 2. Physical Parameters and Sampling Effort, by Basin

Bay/Basin	Lake Section	Surface Area	Littoral Acres	Percent Littoral	Maximum Depth	Miles of Shoreline	Lake Class	2011 Effort Gill Nets
Halsted's	1	545	322	59	36	5.36	24	0
Priest's	2	138	76	55	34	1.75	24	0
Cook's	3	362	131	36	43	2.29	24	0
West Upper	4	379	193	51	84	5.62	27	2
South Upper	5	710	320	45	67	4.95	27	2
Smithtown	6	114	33	29	88	1.22	24	0
Phelp's	7	379	272	72	36	3.81	24	0
East Upper	8	783	261	33	52	3.33	27	4
Carman's	9	403	187	46	56	3.14	24	0
Spring Park	10	402	141	35	36	2.67	24	0
Upper Lake Total		4215	1936	46	84	34.14	22	8
Black Lake	11	80	64	80	24	1.81	38	0
Emerald Lake	12	15	14	93	16	1.02	40	0
Seton Lake	13	44	41	93	24	1.24	38	0
Harrison's	14	211	183	87	46	3.61	38	2
Jenning's	15	285	174	61	23	3.05	24	0
West Arm	16	577	383	66	44	4.60	24	2
Crystal	17	800	285	36	113	6.10	27	2
North Arm	18	307	186	61	64	4.57	24	0
Stubb's	19	195	104	53	37	2.25	24	0
Maxwell	20	300	175	58	44	3.43	24	0
Forest Lake	34	84	49	58	42	1.72	30	0
NW Bays Total		2898	1658	57	113	33.40	22	6
Lafayette	21	460	195	42	62	3.47	24	0
Smith's	22	262	244	93	20	1.71	38	0
Brown's	23	648	209	32	88	3.05	27	2
Wayzata	24	751	198	26	63	3.33	27	2
Gray's	25	175	127	73	28	2.19	30	0
Robinson's	26	90	27	30	70	0.86	24	0
St. Louis	27	22	12	55	42	0.48	30	0
Carson's	28	173	108	62	64	2.74	24	0
St. Alban's	29	164	102	62	44	2.19	24	0
Excelsior	30	123	79	64	34	1.14	30	0
Gideon's	31	350	150	43	56	3.14	24	0
South Lower	32	1069	310	29	77	7.53	27	2
Northeast Lower	33E	1010	190	19	96	1.62	27	2
Northwest Lower	33W	1008	240	24	73	2.38	27	2
Libb's Lake	35	23	23	100	8	1.11	40	0
Peavy Lake	36	9	3	33	63	0.57	30	0
Tanager Lake	37	54	38	70	23	1.07	30	0
Lower Lake Total		6391	2255	35	96	38.58	22	10

Table 3. (continued on following page). Historic Secchi Depth measurements, by Basin

2001 - 2003 data were collected by Three Rivers Park District. All other data were collected by MN DNR Fisheries.

Bay/Basin	Secchi Depth (feet)														
	2011	2010	2009	2008	2007	2006	2005	2004	2003	2002	2001	2000	1999	1998	1997
Halsted's	5.0	7.0	2.4	9.5	1.9	3.5	3.5	2.0	1.6	4.9	4.9	2.5	2.9	3.4	5.4
Cook's	7.0	11.0	7.2	10.5	7.0	7.5	7.0	5.0	6.2	6.6	7.2	6.0	5.0	4.2	9.8
West Upper	8.0	11.0	7.5	13.0	8.0	10.0	12.0	9.0	16.4	8.9	6.6	6.5	5.6	5.8	12.2
Spring Park	7.0	16.5	10.8	12.5	8.5	9.5	12.0	9.5	10.2	10.5	9.2	7.5	6.9	7.9	11.2
Upper Lake Avg.	6.8	11.4	7.0	11.4	6.4	7.6	8.6	6.4	8.6	7.7	7.0	5.6	5.1	5.3	9.6
Harrison's	5.0	4.0	2.5	7.0	--	4.5	6.5	3.0	3.0	3.3	3.2	2.8	2.7	2.1	4.2
Jenning's	5.0	3.0	1.8	6.5	2.9	3.5	6.0	3.0	3.0	4.3	2.6	2.5	2.5	2.1	5.3
West Arm	5.0	4.0	2.1	--	3.8	5.5	6.0	3.0	3.3	5.2	3.6	3.5	2.9	2.0	4.9
Crystal	7.0	11.0	11.0	12.0	6.3	8.5	7.0	6.8	8.2	5.9	6.1	6.3	5.0	5.5	10.6
North Arm	7.0	8.0	8.0	10.5	6.0	9.5	6.5	5.5	5.9	6.9	6.9	8.0	6.9	7.5	9.9
Stubb's	5.0	5.0	3.1	4.0	4.5	3.5	4.5	3.0	3.3	4.6	3.0	3.0	2.0	3.6	3.9
Maxwell	7.0	8.0	7.5	9.0	4.0	6.0	6.0	4.0	4.9	5.6	3.6	6.0	5.0	5.0	5.9
Forest Lake	5.0	3.0	1.5	6.5	1.5	4.0	5.0	3.0	3.0	4.9	3.6	3.5	2.1	3.0	8.9
NW Bays Avg.	5.8	5.8	4.7	7.9	4.1	5.6	5.9	3.9	4.3	5.1	4.1	4.4	3.6	3.9	6.7
Wayzata	10.0	11.0	13.7	16.0	8.8	12.0	14.0	10.0	12.5	10.5	6.7	9.0	8.5	8.1	14.9
St. Alban's	8.0	13.0	14.4	17.0	12.0	13.0	12.0	9.0	14.1	13.1	9.5	9.9	9.0	11.7	16.0
Lower Lake So.	9.5	14.0	13.7	14.0	9.0	11.0	12.0	9.0	18.4	10.5	6.6	8.9	9.6	9.6	16.0
Peavy	6.0	6.0	9.1	9.5	--	5.0	6.0	4.0	4.9	5.2	7.2	3.3	6.0	7.0	11.1
Lower Lake Avg.	8.4	11.0	12.7	14.1	9.9	10.3	11.0	8.0	12.5	9.8	7.5	7.8	8.3	9.1	14.5

Table 3 (continued). Historic Secchi Depth measurements, by Basin

2001 - 2003 data were collected by Three Rivers Park District. All other data were collected by MN DNR Fisheries.

Bay/Basin	Secchi Depth (feet)			
	1992	1987	1982	1977
Halsted's	4.0	2.0	2.0	2.2
Cook's	4.9	4.5	4.2	2.9
West Upper	6.5	5.5	3.9	4.2
Spring Park	8.3	7.5	6.0	4.9
Upper Lake Avg.	5.9	4.9	4.0	3.6
Harrison's	2.3	6.4	1.9	2.6
Jenning's	2.1	2.3	4.2	2.5
West Arm	2.4	2.5	3.2	3.0
Crystal	5.6	4.5	3.1	7.0
North Arm	6.0	4.4	--	5.0
Stubb's	3.6	2.6	2.9	2.3
Maxwell	5.5	3.3	4.9	4.5
Forest Lake	3.0	3.2	2.6	2.6
NW Bays Avg.	3.8	3.7	3.3	3.7
Wayzata	10.0	9.0	6.3	7.3
St. Alban's	6.0	--	--	--
Lower Lake So.	12.0	7.5	10.0	6.5
Peavy	6.0	3.3	--	1.7
Lower Lake Avg.	8.5	6.6	8.2	5.2

Table 4. Minimum Depth Where Dissolved Oxygen is Below 2.0 Parts Per Million

2001 - 2003 data were collected by Three Rivers Park District. All other data were collected by MN DNR Fisheries.

Bay/Basin	Depth (ft.) of D.O. < 2.0 ppm.												
	2011	2010	2009	2008	2007	2006	2005	2004	2003	2002	2001	2000	1999
Halsted's	20.0	18.0	19.7	22.0	18.0	20.0	20.0	16.0	13.0	16.4	20.0	15.0	17.0
Cook's	28.0	27.0	42.0	28.0	29.0	27.0	30.0	25.0	23.0	27.9	23.0	23.0	23.0
West Upper	60.0	47.0	52.5	54.0	54.0	38.0	36.0	49.0	26.0	50.8	36.0	29.0	21.0
Spring Park	30.0	32.0	26.0	31.0	28.0	24.0	29.0	26.0	26.0	27.9	26.2	22.0	21.0
Upper Lake Avg.	34.5	31.0	35.1	33.8	32.3	27.3	28.8	29.0	22.0	30.8	26.3	22.3	20.5
Harrison's	18.0	16.0	11.5	19.0	16.0	15.0	17.0	19.4	13.0	14.8	13.1	14.0	12.0
Jenning's	16.0	16.0	12.5	19.0	14.0	16.0	14.0	13.0	13.0	14.8	13.1	19.0	13.0
West Arm	22.0	20.0	13.5	25.0	22.0	23.0	22.0	20.0	13.0	19.7	19.7	18.0	17.0
Crystal	60.0	36.0	28.5	71.0	75.0	35.0	40.0	45.0	26.0	51.0	26.0	27.0	17.0
North Arm	22.0	24.0	19.0	21.0	23.0	24.0	22.0	20.0	16.0	21.3	16.4	19.0	15.0
Stubb's	16.0	14.0	14.0	17.0	16.0	16.0	22.0	20.0	16.0	14.8	13.1	12.0	11.0
Maxwell	22.0	18.0	16.5	21.0	22.0	20.0	22.0	20.0	16.0	18.0	19.7	18.0	17.0
Forest Lake	12.0	14.0	10.0	13.0	14.0	14.0	11.0	11.0	10.0	11.5	13.1	11.0	10.0
NW Bays Avg.	23.5	19.8	15.7	25.8	25.3	20.4	21.3	21.1	15.4	20.7	16.8	17.3	14.0
Wayzata	34.0	32.0	39.4	36.0	13.0	30.0	42.0	40.0	30.0	32.8	32.0	28.0	28.0
St. Alban's	30.0	32.0	36.5	29.0	36.0	30.0	35.0	40.0	30.0	31.2	32.8	27.0	24.0
Lower Lake So.	44.0	46.0	55.8	58.0	40.0	35.0	33.0	35.0	33.0	49.2	32.8	32.0	32.0
Peavy	14.0	8.0	16.4	36.0	--	15.0	15.0	10.0	7.0	8.2	9.8	6.0	9.0
Lower Lake Avg.	30.5	29.5	37.0	39.8	29.7	27.5	31.3	31.3	25.0	30.4	26.9	23.3	23.3

Lake: Minnetonka
 Bay/Basin: Entire Lake

Table 5. 2011 Gill Net Catch Summary

250 Foot Experimental Gill Nets

Number of net sets: 24

First net set on: 6-13-11

Last net set on: 6-30-11

Target species: Northern Pike, Walleye, Yellow Perch

Summary by Numbers						Summary by Weight (lbs.)					
Species	Total No.	Number Per Set	Lake Class 22 Quartiles			Total Pounds	Pounds Per Set	Mean Weight	Lake Class 22 Quartiles		
			25%	50%	75%				25%	50%	75%
Black Bullhead	4	0.17	0.46	1.63	4.11	1.77	0.07	0.44	0.55	0.70	0.95
Black Crappie	181	7.54	0.22	0.42	1.14	44.18	1.84	0.24	0.24	0.38	0.55
Bluegill	1,517	63.21	N/A	N/A	N/A	235.99	9.83	0.16	N/A	N/A	N/A
Common Carp	5	0.21	0.13	0.30	0.46	40.51	1.69	8.10	3.11	5.21	7.10
Golden Shiner	1	0.04	0.06	0.11	1.63	0.14	0.01	0.14	0.09	0.12	0.15
Green Sunfish	7	0.29	0.11	0.20	0.46	0.39	0.02	0.06	N/A	N/A	N/A
Hybrid Sunfish	21	0.88	N/A	N/A	N/A	2.64	0.11	0.13	N/A	N/A	N/A
Largemouth Bass	4	0.17	0.25	0.62	1.20	2.31	0.10	0.58	0.55	0.77	1.05
Muskellunge	1	0.04	0.10	0.14	0.29	10.39	0.43	10.39	3.06	3.82	5.25
Northern Pike	151	6.29	3.00	5.00	7.89	465.05	19.38	3.08	1.68	2.25	2.80
Pumpkinseed	32	1.33	N/A	N/A	N/A	3.02	0.13	0.09	N/A	N/A	N/A
Rock Bass	20	0.83	1.00	2.93	6.63	5.28	0.22	0.26	0.30	0.41	0.52
Smallmouth Bass	2	0.08	0.20	0.44	0.87	2.32	0.10	1.16	0.94	1.35	1.81
Walleye	85	3.54	4.01	6.61	9.63	290.56	12.11	3.42	1.12	1.43	1.90
White Sucker	6	0.25	1.02	2.00	3.49	10.26	0.43	1.71	1.52	1.89	2.28
Yellow Bullhead	3	0.13	0.65	2.59	6.43	1.64	0.07	0.55	0.62	0.75	0.95
Yellow Perch	748	31.17	7.06	17.14	33.87	104.86	4.37	0.14	0.12	0.15	0.21

Total fish per set:	116.17	Total pounds per set:	50.89
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Lake: Minnetonka
 Bay/Basin: Entire Lake

Table 6. Stocking History and Walleye Year Class Strength from 2011 Gill Net Sample

Walleye Stocked																				
Year	2011	2010	2009	2008	2007	2006	2005	2004	2003	2002	2001	2000	1999	1998	1997	1996	1995	1994	1993	1992
Fingerlings		101,533		126,124		125,337		123,456		111,603	329,318	66,811		143,238		106,345		85,257		24,141
Yearlings							12,441				19,051		5,975					2,160		2,741
Adults																		273		556
Pounds		6,442		6,448		6,450	1,164	5,346		6,407	11,608	3,651	2,505	6,459		3,975		4,278		3,523
Walleye Sampled																				
Age	0	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV	XV	XVI	XVII	XVIII	XIX
Entire Lake (n = 81)		1	1*	17	3*	20	4*	14	2*	3	3	2	1*	1	2*	6				1
Lower Lake (n = 41)		1	1*	14		12		7		1	2	1		1		1				
Upper Lake (n = 22)				2		8	1*	3			1	1	1*		2*	3				
NW Bays (n = 18)				1	3*		3*	4	2*	2						2				1

* Originated from non-stocked year class.

Table 7. Historic Catch per Gill Net Set

Species	Fish/Net																		
	2011	2010	2009	2008	2007	2006	2005	2004	2003	2002	2001	2000	1999	1998	1997	1992	1987	1982	1977
Black Bullhead	0.17	0.29	0.04	0.32	0.08	0.46	0.25	1.04	1.21	1.46	1.21	2.13	4.79	0.38	0.4	8.19	6.76	4.95	12.36
Black Crappie	7.54	5.00	4.42	3.27	4.58	3.67	1.13	2.71	3.46	2.17	1.88	3.79	4.50	2.83	2.63	4.01	5.86	11.2	8.23
Bluegill	63.21	86.25	48.29	87.32	54.33	57.42	30.13	44.54	34.50	40.58	35.58	24.33	29.92	16.58	56.88	44.92	24.49	39.11	18.55
Bowfin	--	0.04	--	--	0.04	0.08	0.04	0.08	0.08	0.04	--	0.04	0.08	0.08	0.05	0.05	--	0.18	0.02
Brown Bullhead	--	--	0.04	--	--	0.04	--	0.08	0.13	0.04	--	--	0.08	0.13	0.15	0.73	0.98	0.25	0.75
Common Carp	0.21	0.08	0.08	0.27	--	0.08	0.04	0.38	0.17	0.08	0.21	0.21	0.38	0.25	0.27	0.47	0.3	0.64	0.36
Golden Shiner	0.04	--	0.04	0.18	--	--	--	--	--	0.04	--	--	0.33	0.29	0.47	0.09	0.07	0.25	0.05
Green Sunfish	0.29	0.71	0.13	0.27	0.38	0.13	0.04	--	--	0.04	0.08	0.04	0.04	--	0.04	0.03	0.09	0.02	0.05
Hybrid Sunfish	0.88	0.67	0.13	1.23	0.42	0.83	0.38	--	0.42	0.46	0.08	0.08	0.13	0.13	0.32	0.33	0.67	0.16	--
Largemouth Bass	0.17	0.08	--	0.05	0.08	--	--	0.08	0.04	0.04	0.08	0.04	0.04	--	0.13	0.16	0.56	0.18	0.54
Muskellunge	0.04	0.08	0.08	0.09	0.04	0.08	0.04	--	0.04	0.08	0.08	0.25	--	0.08	0.05	--	--	--	--
Northern Pike	6.29	6.88	7.58	9.14	10.83	11.46	11.58	12.33	14.92	17.67	14.46	11.96	11.13	8.08	17.25	8.19	10.16	4.27	5.93
Pumpkinseed	1.33	1.08	1.50	1.45	2.08	1.04	1.08	0.92	0.13	0.33	0.21	0.33	0.5	0.13	1.25	0.8	0.88	0.41	0.8
Rock Bass	0.83	1.13	0.33	1.18	0.71	0.50	0.13	0.63	0.38	0.38	0.33	0.21	0.33	0.33	0.48	1.24	0.23	0.27	0.16
Smallmouth Bass	0.08	--	--	0.09	--	0.08	0.04	--	0.08	0.08	--	0.17	0.08	--	0.05	0.17	0.35	--	--
Walleye	3.54	2.92	3.42	3.64	4.25	2.71	1.50	2.92	3.29	5.17	3.79	7.42	8.75	5.13	4.53	4.97	3.79	2.43	1.86
White Crappie	--	--	--	--	--	--	--	--	0.04	--	0.08	--	--	0.13	0.13	1.2	7.51	3.86	6.73
White Sucker	0.25	0.04	0.08	0.05	0.17	0.04	0.13	0.13	0.04	--	0.21	0.08	0.13	0.17	0.19	0.43	0.79	0.84	0.91
Yellow Bullhead	0.13	0.13	0.21	0.41	0.25	0.17	--	0.13	0.13	0.08	0.04	0.13	0.46	0.21	1.15	6.99	5.63	1.95	2.91
Yellow Perch	31.17	17.33	16.75	15.36	13.96	16.29	15.88	12.92	9.16	7.25	9.71	4.88	13.08	22.29	6.59	3.67	6.53	13.14	11.59

Lake: Minnetonka
 Bay/Basin: Entire Lake

Table 8. Historic Catch per Gill Net of Northern Pike, Walleye, and Yellow Perch by Basin -- All Nets

Entire Lake		2011	2010	2009	2008	2007	2006	2005	2004	2003	2002	2001	2000	1999	1998	1997	1992	1987	1982	1977	1970
No. of Sets		24	24	24	22	24	24	24	24	24	24	24	24	24	24	75	75	43	44	44	32
	NOP	6.3	6.8	7.6	9.1	10.8	11.5	11.6	12.3	14.9	17.7	14.5	12.0	11.1	8.1	17.3	8.2	10.2	4.3	5.9	5.0
	WAE	3.5	2.9	3.4	3.6	4.3	2.7	1.5	2.9	3.3	5.2	3.8	7.4	8.8	5.1	4.5	5.0	3.8	2.4	1.9	1.2
	YEP	31.2	17.3	16.8	15.4	14.0	16.3	15.9	12.9	10.3	7.3	9.7	4.9	13.1	22.3	6.6	3.7	6.5	13.1	11.6	22.1
Upper Lake		2011	2010	2009	2008	2007	2006	2005	2004	2003	2002	2001	2000	1999	1998	1997	1992	1987	1982	1977	1970
No. of Sets		8	8	8	8	8	8	8	8	8	8	8	8	8	8	25	22	14	14	14	12
	NOP	5.4	6.1	4.3	8.6	8.8	16.4	14.6	12.8	13.8	18.3	10.0	14.6	16.5	9.4	26.4	8.0	11.0	4.6	6.1	5.1
	WAE	2.8	3.3	2.3	3.1	5.0	2.0	1.6	4.6	2.4	5.9	3.5	6.4	9.3	5.4	4.4	5.2	3.5	1.2	1.0	0.3
	YEP	38.0	21.5	7.4	7.9	16.3	8.5	12.0	6.6	6.4	2.4	2.4	0.9	13.4	23.5	6.6	4.7	11.2	26.3	11.4	15.4
Lower Lake		2011	2010	2009	2008	2007	2006	2005	2004	2003	2002	2001	2000	1999	1998	1997	1992	1987	1982	1977	1970
No. of Sets		10	10	10	8	10	10	10	10	10	10	10	10	10	10	33	34	18	19	19	11
	NOP	7.0	7.8	10.1	10.4	13.5	7.6	10.2	12.8	14.8	23.5	19.2	10.7	7.1	6.8	12.6	9.1	10.0	4.0	4.7	4.9
	WAE	4.1	3.5	4.3	4.3	5.1	3.0	1.8	2.4	4.0	6.3	5.9	8.0	10.0	5.4	4.4	5.3	5.1	4.4	3.3	1.8
	YEP	8.7	6.1	3.1	2.0	4.0	6.9	9.2	2.2	3.6	0.2	1.6	0.0	3.1	5.8	1.6	1.2	3.5	2.2	2.4	23.3
NW Bays		2011	2010	2009	2008	2007	2006	2005	2004	2003	2002	2001	2000	1999	1998	1997	1992	1987	1982	1977	1970
No. of Sets		6	6	6	6	6	6	6	6	6	6	6	6	6	6	17	19	11	11	11	9
	NOP	6.3	6.3	7.8	8.2	9.2	11.3	9.8	11.0	16.2	15.2	12.5	10.5	10.7	8.5	12.9	6.6	9.4	4.4	7.8	5.1
	WAE	3.5	1.5	3.5	3.5	1.8	3.2	0.8	1.5	3.3	2.3	0.7	7.8	6.0	4.3	5.0	3.9	1.7	0.6	0.5	1.8
	YEP	59.5	30.5	52.0	43.2	27.5	42.3	32.2	39.2	22.2	25.5	33.0	18.3	29.3	48.2	16.2	7.3	5.8	15.3	27.7	29.6

**Table 9. Mean Length (in.) and Weight (lbs.) of Gillnet-Sampled Fish
 (continued on following page)**

Species	2011			2010			2009			2008			2007		
	No.	Mean Length	Mean Weight	No.	Mean Length	Mean Weight	No.	Mean Length	Mean Weight	No.	Mean Length	Mean Weight	No.	Mean Length	Mean Weight
Black Bullhead	4	8.76	0.44	7	10.74	0.68	1	8.86	0.38	7	7.28	0.25	2	11.65	0.82
Black Crappie	181	7.50	0.24	120	7.58	0.24	106	7.50	0.23	72	7.50	0.23	110	7.36	0.22
Bluegill	1517	5.82	0.16	2070	5.94	0.16	1159	5.94	0.16	1921	5.87	0.17	1304	5.89	0.15
Bowfin	--	--	--	1	25.00	5.29	--	--	--	--	--	--	1	24.61	5.05
Brown Bullhead	--	--	--	0	--	--	1	13.15	1.68	--	--	--	--	--	--
Common Carp	5	25.70	8.10	2	29.07	11.18	2	--	--	6	25.53	2.30	--	--	--
Golden Shiner	1	7.13	0.14	0	--	--	1	7.72	0.17	4	7.01	0.12	--	--	--
Green Sunfish	7	4.53	0.06	17	4.54	0.07	3	4.51	0.06	6	4.33	0.06	9	4.29	0.05
Hybrid Sunfish	21	5.47	0.13	16	5.24	0.13	3	5.62	0.14	27	5.55	0.14	10	5.35	0.13
Largemouth Bass	4	10.42	0.58	2	7.81	0.21	--	--	--	1	15.24	1.86	2	7.26	0.17
Muskellunge	1	35.43	10.39	2	39.76	15.77	2	29.07	6.41	2	20.69	2.33	1	40.39	16.12
Northern Pike	151	22.99	3.08	165	25.38	3.00	182	23.78	3.29	201	24.53	3.50	260	23.32	3.07
Pumpkinseed	32	4.82	0.09	26	4.76	3.94	36	4.24	0.06	32	4.33	0.06	50	4.60	0.08
Rock Bass	20	6.74	0.26	27	6.89	0.27	8	8.49	0.47	26	8.01	0.41	17	7.69	0.38
Smallmouth Bass	2	11.65	1.16	0	--	--	--	--	--	2	15.37	1.59	--	--	--
Walleye	85	20.29	3.42	70	19.89	3.16	82	19.60	3.11	80	17.96	2.49	102	17.89	2.38
White Crappie	--	--	--	0	--	--	--	--	--	--	--	--	--	--	--
White Sucker	6	15.39	1.71	1	8.62	0.26	2	16.85	2.16	1	17.64	2.37	4	15.61	1.74
Yellow Bullhead	3	9.97	0.55	3	10.47	0.62	5	9.65	0.51	9	10.15	0.66	6	10.58	0.65
Yellow Perch	748	6.74	0.14	416	6.56	0.13	402	6.66	0.14	338	6.61	0.13	335	6.37	0.11

Lake: Minnetonka

Bay/Basin: Entire Lake

**Table 9 (continued). Mean Length (in.) and Weight (lbs.) of Gillnet-Sampled Fish
(continued on following page)**

Species	2006			2005			2004			2003			2002		
	No.	Mean Length	Mean Weight	No.	Mean Length	Mean Weight	No.	Mean Length	Mean Weight	No.	Mean Length	Mean Weight	No.	Mean Length	Mean Weight
Black Bullhead	11	10.60	0.76	6	9.82	0.58	25	9.52	0.61	29	9.80	0.23	33	10.20	0.67
Black Crappie	88	7.22	0.22	27	7.46	0.21	63	7.66	0.26	83	7.10	0.22	53	7.10	0.22
Bluegill	1378	5.92	0.17	721	6.04	0.17	1068	5.81	0.15	828	5.80	0.16	974	5.50	0.12
Bowfin	2	17.32	1.83	1	22.40	3.15	2	19.17	2.35	2	17.40	1.73	1	10.70	0.43
Brown Bullhead	1	14.02	1.41	0	--	--	2	13.35	1.35	3	8.80	0.41	1	13.70	1.50
Comon Carp	2	25.67	8.99	1	28.15	10.25	9	27.80	10.22	4	24.50	8.03	2	27.40	9.47
Golden Shiner	0	--	--	0	--	--	0	--	--	0	--	--	1	5.90	0.08
Green Sunfish	3	4.34	0.07	1	4.09	0.05	0	--	--	0	--	--	1	5.90	0.10
Hybrid Sunfish	20	5.60	0.14	9	6.51	0.22	0	--	--	10	4.90	0.09	11	4.60	0.09
Largemouth Bass	0	--	--	0	--	--	2	18.60	3.70	1	6.30	0.16	1	12.90	1.59
Muskellunge	2	47.56	27.59	1	38.70	16.89	0	--	--	1	38.40	14.11	2	30.90	6.64
Northern Pike	275	24.10	3.53	277	23.97	3.29	293	22.20	2.53	358	21.90	2.63	425	21.40	2.40
Pumpkinseed	25	4.60	0.08	26	3.79	0.05	22	4.24	0.07	3	5.30	0.12	8	4.10	0.06
Rock Bass	12	7.42	0.34	3	9.08	0.59	15	7.56	0.37	9	8.30	0.44	8	8.20	0.48
Smallmouth Bass	2	12.40	1.17	1	15.24	1.61	0	--	--	2	15.90	1.93		16.10	2.20
Walleye	65	18.60	2.66	37	19.33	2.92	70	19.06	2.85	79	16.50	1.97	126	17.60	2.20
White Crappie	0	--	--	0	--	--	0	--	--	1	7.90	0.19	0	--	--
White Sucker	1	13.07	0.94	3	15.76	1.72	3	17.74	2.60	1	17.70	2.09	0	--	--
Yellow Bullhead	4	11.06	0.80	0	--	--	3	11.23	0.81	3	12.00	1.00	2	5.30	1.22
Yellow Perch	391	6.24	0.12	380	6.19	0.12	310	6.34	0.13	247	6.10	0.15	174	6.30	0.11

**Table 9 (continued). Mean Length (in.) and Weight (lbs.) of Gillnet-Sampled Fish
 (continued on following page)**

Species	2001			2000			1999			1998			1997		
	No.	Mean Length	Mean Weight	No.	Mean Length	Mean Weight	No.	Mean Length	Mean Weight	No.	Mean Length	Mean Weight	No.	Mean Length	Mean Weight
Black Bullhead	29	9.70	0.57	51	10.36	0.64	115	8.72	0.38	9	10.70	0.73	30	10.23	0.68
Black Crappie	45	6.60	0.18	91	7.41	0.23	108	6.97	0.20	68	7.24	0.21	197	7.35	0.22
Bluegill	854	5.70	0.15	584	5.82	0.14	718	5.38	0.11	398	5.76	0.14	427	6.10	0.17
Bowfin	0	--	--	1	19.13	2.56	2	26.77	7.28	2	21.97	3.07	4	21.00	3.23
Brown Bullhead	0	--	--	0	--	--	2	13.44	1.31	3	11.82	0.77	11	13.10	1.10
Comon Carp	5	27.50	9.71	5	28.57	11.83	9	27.93	9.87	6	26.14	8.57	20	25.92	8.34
Golden Shiner	0	--	--	0	--	--	8	6.19	0.09	7	7.24	0.14	35	6.94	0.12
Green Sunfish	2	5.10	0.09	1	4.57	0.05	1	4.13	0.05	0	--	--	3	5.21	0.10
Hybrid Sunfish	2	5.00	0.11	2	4.78	0.10	3	5.10	0.10	3	5.83	0.17	24	5.60	0.15
Largemouth Bass	2	10.10	0.57	1	11.30	0.67	1	8.11	0.24	0	--	--	10	11.00	1.01
Muskellunge	2	27.90	4.80	6	24.97	5.06	0	--	--	2	42.70	18.71	4	36.26	11.35
Northern Pike	347	21.60	2.35	287	21.58	2.37	267	21.87	2.50	194	22.06	2.54	1294	21.19	2.24
Pumpkinseed	5	4.60	0.09	8	4.90	0.10	12	4.93	0.09	3	3.79	0.04	94	4.27	0.07
Rock Bass	8	8.40	0.54	5	9.54	0.65	8	8.70	0.55	8	8.57	0.51	36	7.20	0.32
Smallmouth Bass	0	--	--	4	16.90	2.39	2	13.48	1.39	0	--	--	4	15.65	2.15
Walleye	91	18.00	2.30	176	17.44	2.10	210	16.23	1.86	123	17.63	2.17	340	18.23	2.26
White Crappie	2	4.60	0.04	0	--	--	0	--	--	3	9.59	0.43	10	9.12	0.37
White Sucker	5	17.10	2.10	2	17.26	2.32	3	14.25	1.45	4	18.60	2.69	14	17.28	2.34
Yellow Bullhead	1	12.00	0.95	3	12.94	1.31	11	12.00	1.02	5	12.13	0.96	86	11.66	0.90
Yellow Perch	233	6.30	0.12	117	6.98	0.15	314	6.49	0.12	535	6.16	0.10	494	6.70	0.13

Lake: Minnetonka
 Bay/Basin: Entire Lake

Table 9 (continued). Mean Length (in.) and Weight (lbs.) of Gillnet-Sampled Fish

Species	1992		
	No.	Mean Length	Mean Weight
Black Bullhead	147	10.14	0.62
Black Crappie	301	6.85	0.19
Bluegill	3369	6.31	0.19
Bowfin	4	16.20	1.98
Brown Bullhead	55	11.22	0.07
Comon Carp	35	24.65	7.20
Golden Shiner	7	6.84	0.12
Green Sunfish	2	4.20	0.10
Hybrid Sunfish	25	5.06	0.13
Largemouth Bass	12	11.60	0.98
Muskellunge	0	--	--
Northern Pike	614	22.17	2.62
Pumpkinseed	60	4.93	0.12
Rock Bass	93	6.67	0.26
Smallmouth Bass	13	14.03	1.61
Walleye	373	17.34	2.13
White Crappie	90	7.89	0.27
White Sucker	32	18.20	2.60
Yellow Bullhead	524	10.69	0.66
Yellow Perch	275	6.54	0.13

Lake: MinnetonkaBasin: Entire Lake**Table 10. Length Frequency Distribution (inches) of Fish Collected in Gill Nets, 2011 (continued on following page)**

	<u>BLB</u>	<u>BLC</u>	<u>BLG</u>	<u>CAP</u>	<u>GOS</u>	<u>GSF</u>	<u>HSF</u>	<u>LMB</u>	<u>MUE</u>	<u>NOP</u>	<u>PMK</u>	<u>RKB</u>	<u>SMB</u>	<u>WAE</u>	<u>WTS</u>
< 3.00	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-
3.00 - 3.49	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3.50 - 3.99	-	-	27	-	-	1	2	-	-	-	9	1	-	-	-
4.00 - 4.49	-	13	193	-	-	2	1	-	-	-	3	3	-	-	-
4.50 - 4.99	1	16	87	-	-	4	2	-	-	-	6	-	-	-	-
5.00 - 5.49	-	4	215	-	-	-	6	-	-	-	6	3	-	-	-
5.50 - 5.99	-	3	260	-	-	-	4	-	-	-	6	-	-	-	-
6.00 - 6.49	-	3	312	-	-	-	5	-	-	-	1	1	-	-	-
6.50 - 6.99	-	9	260	-	-	-	-	-	-	-	1	4	-	-	-
7.00 - 7.49	-	15	153	-	1	-	-	-	-	-	-	1	1	1	-
7.50 - 7.99	-	33	9	-	-	-	1	-	-	-	-	2	-	-	-
8.00 - 8.49	-	31	-	-	-	-	-	1	-	-	-	1	-	-	-
8.50 - 8.99	-	28	-	-	-	-	-	1	-	-	-	1	-	1	-
9.00 - 9.49	1	11	-	-	-	-	-	-	-	-	-	1	-	-	-
9.50 - 9.99	1	8	-	-	-	-	-	-	-	-	-	1	-	-	-
10.00 - 10.49	-	2	-	-	-	-	-	-	-	-	-	1	-	1	-
10.50 - 10.99	-	2	-	-	-	-	-	-	-	-	-	-	-	1	-
11.00 - 11.49	1	1	-	-	-	-	-	1	-	-	-	-	-	-	2
11.50 - 11.99	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12.00 - 12.99	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-
13.00 - 13.99	-	-	-	-	-	-	-	1	-	4	-	-	-	5	-
14.00 - 14.99	-	-	-	-	-	-	-	-	-	3	-	-	-	2	1
15.00 - 15.99	-	-	-	-	-	-	-	-	-	5	-	-	1	1	-
16.00 - 16.99	-	-	-	-	-	-	-	-	-	3	-	-	-	2	-
17.00 - 17.99	-	-	-	-	-	-	-	-	-	4	-	-	-	3	-
18.00 - 18.99	-	-	-	-	-	-	-	-	-	10	-	-	-	5	3
19.00 - 19.99	-	-	-	-	-	-	-	-	-	8	-	-	-	9	-
20.00 - 20.99	-	-	-	-	-	-	-	-	-	14	-	-	-	10	-
21.00 - 21.99	-	-	-	-	-	-	-	-	-	13	-	-	-	4	-
22.00 - 22.99	-	-	-	-	-	-	-	-	-	12	-	-	-	12	-
23.00 - 23.99	-	-	-	1	-	-	-	-	-	11	-	-	-	6	-
24.00 - 24.99	-	-	-	-	-	-	-	-	-	11	-	-	-	4	-
25.00 - 25.99	-	-	-	1	-	-	-	-	-	13	-	-	-	6	-
26.00 - 26.99	-	-	-	2	-	-	-	-	-	8	-	-	-	2	-
27.00 - 27.99	-	-	-	1	-	-	-	-	-	6	-	-	-	2	-
28.00 - 28.99	-	-	-	-	-	-	-	-	-	12	-	-	-	4	-
29.00 - 29.99	-	-	-	-	-	-	-	-	-	6	-	-	-	-	-
30.00 - 30.99	-	-	-	-	-	-	-	-	-	2	-	-	-	-	-
31.00 - 31.99	-	-	-	-	-	-	-	-	-	3	-	-	-	-	-
32.00 - 32.99	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-
33.00 - 33.99	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
34.00 - 34.99	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-
35.00 - 35.99	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-
= > 36.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	4	179	1517	5	1	7	21	4	1	150	32	20	2	85	6
Min. Length	4.96	4.09	0.47	23.03	7.13	3.94	3.74	8.03	35.43	13.23	3.58	3.98	7.48	7.28	11.02
Max. Length	11.06	11.18	7.91	27.17	7.13	4.92	7.68	13.90	35.43	34.72	6.50	10.20	15.83	28.54	18.70
Mean Length	8.76	7.50	5.82	25.70	7.13	4.53	5.47	10.42	35.43	22.99	4.82	6.74	11.65	20.29	15.39
# Measured	4	179	1500	5	1	7	21	4	1	150	32	20	2	85	6
No Lengths for	0	2	17	0	0	0	0	0	0	1	0	0	0	0	0

Lake: Minnetonka

Basin: Entire Lake

Table 10 (continued). Length Frequency Distribution (inches) of Fish Collected in Gill Nets, 2011

	<u>YEB</u>	<u>YEP</u>
< 3.00	-	-
3.00 - 3.49	-	-
3.50 - 3.99	-	-
4.00 - 4.49	-	-
4.50 - 4.99	-	-
5.00 - 5.49	-	5
5.50 - 5.99	-	124
6.00 - 6.49	-	192
6.50 - 6.99	-	178
7.00 - 7.49	-	113
7.50 - 7.99	-	86
8.00 - 8.49	-	38
8.50 - 8.99	-	9
9.00 - 9.49	1	3
9.50 - 9.99	1	-
10.00 - 10.49	-	-
10.50 - 10.99	-	-
11.00 - 11.49	1	-
11.50 - 11.99	-	-
12.00 - 12.99	-	-
13.00 - 13.99	-	-
14.00 - 14.99	-	-
15.00 - 15.99	-	-
16.00 - 16.99	-	-
17.00 - 17.99	-	-
18.00 - 18.99	-	-
19.00 - 19.99	-	-
20.00 - 20.99	-	-
21.00 - 21.99	-	-
22.00 - 22.99	-	-
23.00 - 23.99	-	-
24.00 - 24.99	-	-
25.00 - 25.99	-	-
26.00 - 26.99	-	-
27.00 - 27.99	-	-
28.00 - 28.99	-	-
29.00 - 29.99	-	-
30.00 - 30.99	-	-
31.00 - 31.99	-	-
32.00 - 32.99	-	-
33.00 - 33.99	-	-
34.00 - 34.99	-	-
35.00 - 35.99	-	-
= > 36.00	-	-
	<u>YEB</u>	<u>YEP</u>
Total	3	748
Min. Length	9.25	5.16
Max. Length	11.02	9.41
Mean Length	9.97	6.74
# Measured	3	728
No Lengths for	0	20

Lake: Minnetonka
 Bay/Basin: Entire Lake

Table 11. Walleye Mean Back-calculated Length (in.) at Age, by Basin and Sex, 2011

Entire Lake	Sample Size	AGE																
		I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV	XV	XVI	XVII
Male																		
Female																		
Combined	81	5.2	9.0	12.8	16.0	18.3	19.7	20.5	21.0	21.9	22.7	23.6	23.6	23.9	24.7	24.3	26.6	27.0

Lower Lake	Sample Size	AGE																
		I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV	XV	XVI	XVII
Male																		
Female																		
Combined	41	5.0	8.7	12.5	15.6	18.0	19.3	20.8	21.2	22.0	22.6	23.4	22.1	22.7	23.9	24.4	---	---

Upper Lake	Sample Size	AGE																
		I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV	XV	XVI	XVII
Male																		
Female																		
Combined	22	5.4	9.1	13.0	16.1	18.6	19.7	20.7	21.7	22.7	23.7	24.7	25.0	25.3	25.8	25.0	---	---

Northwest Bays	Sample Size	AGE																
		I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV	XV	XVI	XVII
Male																		
Female																		
Combined	18	5.4	9.6	13.1	16.3	18.5	20.0	20.1	20.0	20.5	20.1	21.0	21.8	22.5	23.0	23.5	26.6	27.0

Lake: Minnetonka
 Bay/Basin: Entire Lake

Table 12. Northern Pike Mean Back-calculated Length (in.) at Age, by Basin and Sex, 2011

Entire Lake	Sample Size	AGE								
		I	II	III	IV	V	VI	VII	VIII	IX
Male										
Female										
Combined	139	8.7	14.3	18.8	21.8	24.7	26.5	29.0	32.0	34.1

Lower Lake	Sample Size	AGE								
		I	II	III	IV	V	VI	VII	VIII	IX
Male										
Female										
Combined	65	8.7	14.1	18.4	21.3	24.4	26.1	28.9	31.7	34.1

Upper Lake	Sample Size	AGE								
		I	II	III	IV	V	VI	VII	VIII	IX
Male										
Female										
Combined	39	8.3	14.2	18.9	22.0	24.7	27.4	29.2	32.2	---

Northwest Bays	Sample Size	AGE								
		I	II	III	IV	V	VI	VII	VIII	IX
Male										
Female										
Combined	35	9.0	14.9	19.4	22.4	25.1	26.0	28.5	---	---

Lake: Minnetonka
 Bay/Basin: Entire Lake

Table 13. Yellow Perch Mean Back-calculated Length (in.) at Age by Basin, 2011

Basin	Sample Size	Age							
		I	II	III	IV	V	VI	VII	VIII
Entire Lake	114	2.6	4.2	5.5	6.5	7.2	7.5	8.1	7.9
Lower Lake	32	2.4	3.8	5.1	6.1	6.6	---	---	---
Upper Lake	37	2.5	4.1	5.4	6.4	7.1	7.1	7.6	7.9
Northwest Bays	45	2.8	4.6	6.0	7.0	7.9	8.2	8.5	---

Lake: Minnetonka
 Bay/Basin: Entire Lake

Table 14. Walleye Back-Calculated Lengths (in.) for Each Age Class and Average Annual Increments of Back-Calculated Lengths, 2011(continued on following page)

Class	Age	N	1	2	3	4	5	6	7	8	9	10	11	12	13	14
2010	1	1	5.44 5.44	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
2009	2	1	6.27 6.27	8.16 1.89	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
2008	3	17	4.98 4.98	9.05 4.07	12.77 3.72	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
2007	4	3	6.58 6.58	10.29 3.71	13.05 2.76	16.94 3.89	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
2006	5	20	4.97 4.97	8.86 3.89	13.24 4.38	16.67 3.44	19.10 2.43	- -	- -	- -	- -	- -	- -	- -	- -	- -
2005	6	4	5.32 5.32	9.83 4.51	15.51 5.68	19.48 3.97	22.00 2.51	23.69 1.70	- -	- -	- -	- -	- -	- -	- -	- -
2004	7	14	5.30 5.30	8.93 3.63	12.29 3.37	15.72 3.43	18.42 2.69	20.29 1.88	21.51 1.22	- -	- -	- -	- -	- -	- -	- -
2003	8	2	4.91 4.91	9.96 5.05	14.93 4.97	16.74 1.81	18.08 1.34	19.03 0.95	20.01 0.99	20.87 0.86	- -	- -	- -	- -	- -	- -
2002	9	3	6.04 6.04	9.48 3.44	12.13 2.65	15.08 2.95	17.93 2.85	19.99 2.06	21.34 1.34	22.28 0.94	22.83 0.55	- -	- -	- -	- -	- -
2001	10	3	5.17 5.17	9.35 4.18	12.18 2.83	13.72 1.53	15.90 2.19	17.47 1.57	18.94 1.47	20.17 1.23	21.17 1.00	21.98 0.81	- -	- -	- -	- -
2000	11	2	5.72 5.72	9.56 3.84	13.41 3.85	16.57 3.17	19.06 2.49	21.73 2.68	24.31 2.58	25.54 1.23	26.24 0.70	27.14 0.90	27.84 0.70	- -	- -	- -
1999	12	1	4.46 4.46	7.47 3.01	10.72 3.25	15.42 4.70	18.00 2.58	19.94 1.94	21.25 1.31	22.59 1.34	24.25 1.66	25.14 0.89	25.77 0.63	26.44 0.67	- -	- -
1998	13	1	4.52 4.52	8.90 4.38	14.93 6.03	15.78 0.85	17.13 1.35	18.28 1.15	18.83 0.55	19.23 0.40	20.04 0.81	20.48 0.44	21.07 0.59	21.51 0.44	22.03 0.52	- -
1997	14	2	4.72 4.72	8.51 3.80	11.16 2.65	13.06 1.91	16.35 3.29	18.35 2.00	20.48 2.13	22.17 1.69	23.76 1.59	25.29 1.54	25.99 0.70	26.64 0.65	27.08 0.44	27.62 0.55

Lake: Minnetonka
 Bay/Basin: Entire Lake

Table 14 (continued). Walleye Back-Calculated Lengths (in.) for Each Age Class and Average Annual Increments of Back-Calculated Lengths, 2011

Class	Age	N	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1996	15	6	5.27 5.27	8.71 3.44	11.81 3.10	13.96 2.15	15.92 1.96	17.29 1.37	18.22 0.93	19.16 0.94	19.94 0.77	20.78 0.84	21.55 0.78	22.41 0.85	23.03 0.63	23.53 0.50	23.99 0.46	- -	- -	- -	- -
1992	19	1	3.01 3.01	5.78 2.77	8.79 3.01	12.04 3.25	14.53 2.49	16.46 1.93	17.67 1.21	19.57 1.90	20.74 1.17	21.77 1.03	22.87 1.10	23.89 1.02	24.60 0.80	25.43 0.74	26.08 0.65	26.56 0.48	27.00 0.44	27.36 0.36	27.66 0.30
Mean Length			5.17	9.02	12.81	15.94	18.33	19.69	20.53	20.99	21.93	22.68	23.59	23.60	23.91	24.65	24.29	26.56	27.00	27.36	27.66
Mean Increment			5.17	3.85	3.79	3.12	2.44	1.75	1.30	1.11	0.92	0.92	0.75	0.78	0.60	0.54	0.49	0.48	0.44	0.36	0.30
Total N			81	80	79	62	59	39	35	21	19	16	13	11	10	9	7	1	1	1	1

Lake: Minnetonka
 Bay/Basin: Entire Lake

Table 15. Northern Pike Back-Calculated Lengths (in.) for Each Age Class and Average Annual Increments of Back-Calculated Lengths, 2011

Class	Age	N	1	2	3	4	5	6	7	8	9
2010	1	8	11.69 11.69	- -	- -	- -	- -	- -	- -	- -	- -
2009	2	8	8.81 8.81	14.82 6.01	- -	- -	- -	- -	- -	- -	- -
2008	3	18	8.50 8.50	14.36 5.86	18.06 3.70	- -	- -	- -	- -	- -	- -
2007	4	50	8.37 8.37	14.01 5.64	18.20 4.19	20.91 2.71	- -	- -	- -	- -	- -
2006	5	25	8.60 8.60	14.42 5.82	19.48 5.06	22.70 3.22	24.54 1.84	- -	- -	- -	- -
2005	6	21	7.86 7.86	13.73 5.87	19.39 5.66	22.27 2.88	24.41 2.15	26.04 1.63	- -	- -	- -
2004	7	6	9.87 9.87	15.75 5.88	19.68 3.92	22.66 2.98	25.40 2.74	27.09 1.70	28.29 1.20	- -	- -
2003	8	2	8.75 8.75	18.18 9.44	21.11 2.93	23.87 2.77	26.18 2.31	27.81 1.64	29.98 2.17	31.54 1.56	- -
2002	9	1	9.44 9.44	14.48 5.04	18.31 3.83	22.84 4.53	27.60 4.76	29.54 1.94	31.16 1.62	32.52 1.36	34.14 1.62
Mean Length			8.65	14.29	18.76	21.78	24.70	26.48	28.98	31.86	34.14
Mean Increment			8.65	5.83	4.51	2.90	2.13	1.65	1.46	1.49	1.62
Total N			139	131	123	105	55	30	9	3	1

Lake: Minnetonka
 Bay/Basin: Entire Lake

Table 16. Yellow Perch Back-Calculated Lengths (in.) for Each Age Class and Average Annual Increments of Back-Calculated Lengths, 2011

Class	Age	N	1	2	3	4	5	6	7	8
2009	2	5	2.94 2.94	4.92 1.98	- -	- -	- -	- -	- -	- -
2008	3	36	2.59 2.59	4.12 1.53	5.45 1.32	- -	- -	- -	- -	- -
2007	4	40	2.65 2.65	4.26 1.61	5.59 1.33	6.61 1.01	- -	- -	- -	- -
2006	5	28	2.47 2.47	3.98 1.51	5.43 1.45	6.48 1.05	7.27 0.80	- -	- -	- -
2005	6	1	2.88 2.88	3.93 1.05	4.74 0.81	5.70 0.96	6.46 0.76	7.01 0.55	- -	- -
2004	7	3	2.65 2.65	4.67 2.02	6.01 1.34	6.77 0.76	7.37 0.61	7.82 0.45	8.25 0.43	- -
2003	8	1	2.33 2.33	4.15 1.82	5.47 1.32	6.06 0.59	6.66 0.60	7.17 0.51	7.55 0.38	7.91 0.36
Mean Length			2.60	4.18	5.50	6.54	7.24	7.53	8.08	7.91
Mean Increment			2.60	1.59	1.35	1.01	0.77	0.48	0.42	0.36
Total N			114	114	109	73	33	5	4	1

Lake: Minnetonka
 Bay/Basin: Entire Lake

Table 17. Length (in.) at Capture of Northern Pike, Walleye, and Yellow Perch Collected in Gill Nets, 2011(continued on following page)

Species: Northern Pike
Body-Scale Constant: 2.09
Total Sample Size: 139

Year Class	Age	Sample Size	Length At Capture			Length Increments		
			Average Length	Maximum Length	Minimum Length	Standard Error	Increment	Standard Error
2010	1	8	14.40	16.02	13.23	0.345	2.71	0.158
2009	2	8	16.60	20.67	14.80	0.699	1.78	0.269
2008	3	18	19.34	23.23	15.24	0.456	1.28	0.089
2007	4	50	21.95	25.98	18.11	0.290	1.05	0.056
2006	5	25	25.41	29.33	19.92	0.498	0.87	0.042
2005	6	21	26.93	31.73	21.85	0.566	0.88	0.070
2004	7	6	29.02	30.67	28.15	0.372	0.73	0.089
2003	8	2	32.30	32.72	31.89	0.413	0.77	0.231
2002	9	1	34.72	34.72	34.72	N/A	0.58	N/A

Species: Walleye
Body-Scale Constant: 1.10
Total Sample Size: 81

Year Class	Age	Sample Size	Length At Capture			Length Increments		
			Average Length	Maximum Length	Minimum Length	Standard Error	Increment	Standard Error
2010	1	1	7.28	7.28	7.28	N/A	1.85	N/A
2009	2	1	8.74	8.74	8.74	N/A	0.58	N/A
2008	3	17	14.00	18.27	10.39	0.557	1.23	0.057
2007	4	3	17.73	20.20	16.38	1.235	0.79	0.182
2006	5	20	19.85	22.52	17.01	0.343	0.75	0.039
2005	6	4	24.21	25.79	22.44	0.696	0.53	0.052
2004	7	14	22.14	26.06	19.02	0.647	0.63	0.045
2003	8	2	21.46	22.24	20.67	0.787	0.59	0.168
2002	9	3	23.23	23.70	22.87	0.246	0.40	0.010
2001	10	3	22.49	23.03	22.05	0.288	0.52	0.100
2000	11	2	28.29	28.54	28.03	0.256	0.45	0.070
1999	12	1	26.69	26.69	26.69	N/A	0.25	N/A
1998	13	1	22.28	22.28	22.28	N/A	0.26	N/A
1997	14	2	28.07	28.15	27.99	0.079	0.45	0.062
1996	15	6	24.41	25.98	22.36	0.595	0.42	0.071
1992	19	1	27.91	27.91	27.91	N/A	0.25	N/A

Lake: Minnetonka
 Bay/Basin: Entire Lake

Table 17 (continued). Length (in.) at Capture of Northern Pike, Walleye, and Yellow Perch Collected in Gill Nets, 2011

Species: Yellow Perch

Body-Scale Constant: 1.18

Total Sample Size: 114

Year Class	Age	Sample Size	Length At Capture			Standard Error	Length Increments	
			Average Length	Maximum Length	Minimum Length		Increment	Standard Error
2009	2	5	5.68	5.75	5.59	0.036	0.76	0.075
2008	3	36	6.10	7.17	5.16	0.082	0.66	0.023
2007	4	40	7.10	8.35	5.71	0.102	0.51	0.018
2006	5	28	7.72	9.41	6.30	0.155	0.44	0.020
2005	6	1	7.60	7.60	7.60	N/A	0.59	N/A
2004	7	3	8.53	9.02	8.07	0.273	0.28	0.053
2003	8	1	8.19	8.19	8.19	N/A	0.28	N/A

Lake: Minnetonka
 Bay/Basin: Entire Lake

Table 18. Historic Proportional Size Distribution and Relative Size Distribution-Preferred of Northern Pike, Walleye, and Yellow Perch Collected in Gill Nets (continued on following page)

Species	Year	Entire Lake		Lower Lake		Upper Lake		NW Bays	
		PSD*	RSD-P*	PSD	RSD-P	PSD	RSD-P	PSD	RSD-P
Northern Pike	2011	68	17	57	15	79	24	80	14
	2010	85	22	83	15	82	35	95	18
	2009	78	15	74	12	75	13	87	24
	2008	78	20	74	20	76	16	88	27
	2007	71	16	60	7	74	23	71	16
	2006	73	21	73	24	69	15	82	28
	2005	77	17	77	18	49	8	84	28
	2004	55	9	46	4	54	11	77	14
	2003	53	7	47	6	48	7	60	9
	2002	49	8	33	2	47	10	83	13
	2001	48	8	35	3	59	21	70	8
	2000	48	7	36	2	46	7	70	16
	1999	53	7	33	7	53	8	73	5
	1998	54	7	51	10	44	9	73	6
	1997	47	9	43	7	47	6	52	6
	1992	59	6	50	7	68	13	73	15
Walleye	2011	84	60	69	36	96	78	100	86
	2010	97	51	94	37	100	61	100	77
	2009	77	49	55	36	100	61	100	67
	2008	81	38	58	23	92	40	100	57
	2007	75	33	70	21	74	36	75	33
	2006	87	33	71	14	88	50	89	47
	2005	76	38	68	26	77	38	100	80
	2004	81	36	75	67	84	38	89	33
	2003	66	12	50	8	83	11	85	30
	2002	88	22	87	22	91	22	86	21
	2001	79	30	86	32	86	32	100	75
	2000	78	27	59	12	90	25	96	53
	1999	60	25	54	16	49	25	97	50
	1998	84	27	79	8	88	38	88	46
	1997	82	28	69	14	85	30	99	49
	1992	68	31	68	32	57	16	90	57

*Stock, quality, and preferred lengths (inches) are, respectively: 14, 21, and 28 for northern pike, 10, 15, and 20 for walleye, and 5, 8, and 10 for yellow perch.

Lake: Minnetonka
 Bay/Basin: Entire Lake

Table 18 (continued). Historic Proportional Size Distribution and Relative Size Distribution-Preferred of Northern Pike, Walleye, and Yellow Perch Collected in Gill Nets

Species	Year	Entire Lake		Lower Lake		Upper Lake		NW Bays	
		PSD*	RSD-P*	PSD	RSD-P	PSD	RSD-P	PSD	RSD-P
Yellow Perch	2011	8	0	0	0	1	0	18	0
	2010	3	0	3	0	0	0	7	0
	2009	4	0	0	0	5	0	16	0
	2008	4	0	0	0	0	0	5	0
	2007	3	0	0	0	1	0	3	0
	2006	4	0	0	0	1	0	6	0
	2005	1	0	0	0	0	0	2	0
	2004	2	0	0	0	0	0	3	0
	2003	2	0	0	0	0	0	4	0
	2002	2	0	0	0	0	0	2	0
	2001	3	0	7	0	0	0	4	0
	2000	6	0	--	--	0	0	6	0
	1999	2	0	0	0	0	0	4	0
	1998	2	0	0	0	0	0	4	0
	1997	4	0	0	0	6	0	4	0
	1992	9	0	0	0	20	0	1	0

*Stock, quality, and preferred lengths (inches) are, respectively: 14, 21, and 28 for northern pike, 10, 15, and 20 for walleye, and 5, 8, and 10 for yellow perch.

Lake: Minnetonka
 Bay/Basin: Entire Lake

**Table 19. Historic Relative Weight of Northern Pike, Walleye, and Yellow Perch
 Collected in Gill Nets**

Basin	Species	2011	2010	2009	2008	2007	2006	2005	2004	2003	2002	2001	2000	1999	1998	1997
Entire Lake	NOP	92	92	92	90	90	92	89	86	91	89	85	90	89	86	86
	WAE	90	90	94	91	91	93	91	91	96	94	89	91	94	89	88
	YEP	86	90	90	87	88	91	93	97	102	88	92	86	84	89	88
Lower Lake	NOP	91	90	89	87	88	93	88	84	92	85	82	84	88	85	83
	WAE	89	91	93	90	91	92	93	89	95	93	90	93	94	87	85
	YEP	89	92	87	90	81	99	96	99	100	79	85	--	77	89	88
Upper Lake	NOP	93	93	90	90	90	92	89	87	88	90	84	87	87	85	88
	WAE	90	89	92	91	91	93	89	93	91	97	89	90	95	91	89
	YEP	86	92	88	87	91	85	95	99	93	98	102	79	83	89	92
NW Bays	NOP	93	92	101	93	91	93	93	90	94	93	92	91	94	90	88
	WAE	91	89	96	92	93	93	88	92	100	94	88	90	94	88	92
	YEP	84	87	87	87	88	90	90	96	105	87	92	86	86	88	85

-Relative weights were calculated for individual fish and then averaged by basin as described in Anderson, R.O., and R.M. Neumann. 1996. Length, Weight and Associated Structural Indices. Pages 447-482 in B.R. Murphy and D.W. Willis, editors. Fisheries techniques, 2nd edition. American fisheries Society, Bethesda, Maryland.

MINNESOTA DEPARTMENT OF NATURAL RESOURCES

Section OF FISHERIES

FISHERIES POPULATION ASSESSMENT

Survey Date: June 13-June 24, 2011
Date Mapped: 1949
Map I.D.No.: B-0122

Lake Identification and Location

Name: LAKE MINNETONKA--UPPER LAKE

Bay/Basin Station No.: 1-10

D.O.W. Watershed
(2)No.: 27-0133 (3)No.: 20-055

Management Meandered:
Area: 314 (4) Yes

(5)County(ies): Hennepin & Carver
Twnshp: 116,117N Range: 23,24W
Section: 6;1;19-21,28-31;22-27,34-36

(6) Nearest Town: The cities of Minnetrista, Mound, Spring Park, Victoria, Orono, Tonka Bay, and Shorewood make up the shoreline of the Upper Lake basin of Lake Minnetonka.

(7) Accessibility:

(a) Designated Public Access (Location and Ownership): See table access of sites.

(b) Other access Areas: See table of access sites.

(8) Reason for Survey/Requested by:

Daryl Ellison, West Metro Area Fisheries Supervisor, as part of ongoing monitoring of Lake Minnetonka.



Figure: Upper Lake Minnetonka sampling area (shaded).

Lake and Drainage Basin Characteristics and Use

(10)Lake Area: 4,715 acres¹ (Planimetered from 1949 map in 1990) D.O.W. N/A
acres

(11)Maximum Depth: 88 ft. Schupp's Lake Type: 22

(12)Littoral Acres: 1,936 acres¹ Percent Littoral: 41.06

(13)Length of Shoreline: 34.14 miles² Greatest length: 7.65
mile(s)

¹ Acreages planimetered from 1949 sounding map by the DNR Aquatic Plant Management program in 1990. That data is used in this assessment so that standardized area is used in various fisheries management programs.

² Length of shoreline does not include channel or dredged harbor shoreline distances. Islands are included in the total.

Lake: Minnetonka
 Bay/Basin: Upper Lakes

Table 20. 2011 Gill Net Catch Summary

250 Foot Experimental Gill Nets

Number of net sets: 8

First net set on: 6-13-11

Last net set on: 6-23-11

Target species: Northern Pike, Walleye, Yellow Perch

Summary by Numbers

Summary by Weight (lbs.)

Species	Total No.	Number Per Set	Lake Class 22 Quartiles			Total Pounds	Pounds Per Set	Mean Weight	Lake Class 22 Quartiles		
			25%	50%	75%				25%	50%	75%
Black Crappie	72	9.00	0.22	0.42	1.14	18.83	2.35	0.26	0.24	0.38	0.55
Bluegill	578	72.25	N/A	N/A	N/A	95.41	11.93	0.17	N/A	N/A	N/A
Commn Carp	4	0.50	0.13	0.30	0.46	34.85	4.36	8.71	3.11	5.21	7.10
Hybrid Sunfish	14	1.75	N/A	N/A	N/A	1.87	0.23	0.13	N/A	N/A	N/A
Northern Pike	43	5.38	3.00	5.00	7.89	146.39	18.30	3.40	1.68	2.25	2.80
Pumpkinseed	15	1.88	N/A	N/A	N/A	1.79	0.22	0.12	N/A	N/A	N/A
Walleye	23	2.88	4.01	6.61	9.63	105.45	13.18	4.58	1.12	1.43	1.90
White Sucker	1	0.13	1.02	2.00	3.49	1.32	0.17	1.32	1.52	1.89	2.28
Yellow Bullhead	1	0.13	0.65	2.59	6.43	0.48	0.06	0.48	0.62	0.75	0.95
Yellow Perch	304	38.00	7.06	17.14	33.87	37.15	4.64	0.12	0.12	0.15	0.21

Total fish per set:	131.90	Total pounds per set:	55.45
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Lake: Minnetonka
 Bay/Basin: Upper Lakes

Table 21. Historic Catch per Gill Net Set

Species	Year															
	2011	2010	2009	2008	2007	2006	2005	2004	2003	2002	2001	2000	1999	1998	1997	1992
Black Bullhead	--	--	--	0.13	--	0.13	--	1.13	0.13	0.63	0.25	0.25	--	--	0.24	0.50
Black Crappie	9.00	4.00	6.13	4.88	3.38	3.63	1.40	2.50	5.63	1.63	0.88	3.00	1.88	1.38	1.72	3.27
Bluegill	72.25	97.50	57.00	76.38	83.63	41.38	30.10	42.80	17.88	45.50	44.63	30.75	47.63	18.13	51.92	50.64
Brown Bullhead	--	--	0.13	--	--	--	--	--	--	--	--	--	--	--	--	--
Bowfin	--	--	--	--	--	--	--	--	--	0.13	--	--	--	--	0.08	0.05
Common Carp	0.50	--	0.25	--	--	--	0.10	0.13	0.13	0.13	0.13	0.25	0.50	0.25	0.16	0.55
Hybrid Sunfish	1.75	1.00	0.25	1.25	0.38	0.63	0.10	0.00	0.13	0.75	0.25	0.13	0.13	0.13	0.64	0.23
Green Sunfish	--	0.13	--	0.13	--	--	--	--	--	--	n/a	n/a	n/a	n/a	n/a	n/a
Largemouth Bass	--	--	--	--	--	--	--	--	--	0.13	--	0.13	--	--	--	0.05
Muskellunge	--	0.13	0.13	0.13	--	0.13	--	--	0.13	0.13	0.13	0.25	--	--	0.12	--
Northern Pike	5.38	6.13	4.25	8.63	8.75	16.38	14.60	12.75	13.75	18.25	10.00	14.63	16.50	9.38	26.36	7.95
Pumpkinseed	1.88	2.13	1.63	2.38	1.63	1.25	2.00	0.75	0.13	0.25	--	0.38	0.38	0.13	2.72	1.23
Walleye	2.88	3.25	2.25	3.13	5.00	2.00	1.60	4.63	2.38	5.88	3.50	6.38	9.25	5.38	4.44	5.05
White Crappie	--	--	--	--	--	--	--	--	0.13	--	0.25	--	--	0.13	0.16	1.45
White Sucker	0.13	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Yellow Bullhead	0.13	0.38	0.13	0.38	--	0.13	--	--	--	0.13	0.25	--	--	0.13	0.16	1.45
Yellow Perch	38.00	21.50	7.38	7.88	16.25	8.50	12.00	6.63	6.38	2.38	2.38	0.88	13.38	23.50	6.56	1.14

Lake: Minnetonka
 Bay/Basin: Upper Lakes

**Table 22. Mean Length (in.) and Weight (lbs.) of Gillnet-Sampled Fish
 (continued on following page)**

Species	2011			2010			2009			2008			2007		
	No.	Mean Length	Mean Wght	No.	Mean Length	Mean Wght	No.	Mean Length	Mean Wght	No.	Mean Length	Mean Wght	No.	Mean Length	Mean Wght
Black Bullhead	--	--	--	--	--	--	--	--	--	1	7.4	0.19	--	--	--
Black Crappie	72	7.9	0.26	32	7.6	0.23	49	7.7	0.24	39	7.4	0.21	27	7.5	0.23
Bluegill	578	5.9	0.17	780	5.9	0.16	456	5.8	0.16	610	5.7	0.15	669	5.7	0.15
Brown Bullhead	--	--	--	--	--	--	1	--	1.68	--	--	--	--	--	--
Bowfin	--	--	--	--	--	--	--	13.2	--	--	--	--	--	--	--
Green Sunfish	--	--	--	1	4.6	0.07	--	--	--	--	--	--	--	--	--
Common Carp	4	26.4	8.71	--	--	--	2	--	--	--	--	--	--	--	--
Hybrid Sunfish	14	5.6	0.13	8	5.6	0.16	2	5.6	0.14	10	5.6	0.15	3	5.7	0.14
Largemouth Bass	--	--	--	--	--	--	--	--	--	1	15.2	1.86	--	--	--
Muskellunge	--	--	--	1	36.2	11.18	1	22.1	1.84	--	--	--	--	--	--
Northern Pike	43	23.9	3.4	49	25.9	4.36	34	23.9	3.39	67	24.3	3.40	70	23.9	3.37
Pumpkinseed	15	5.2	0.12	17	4.7	0.09	13	4.3	0.06	19	4.4	0.06	13	4.6	0.07
Walleye	23	22.7	4.58	26	20.1	3.38	18	21.5	3.81	25	19.5	2.96	40	18.0	2.44
White Crappie	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
White Sucker	1	14.7	1.32	--	--	--	--	--	--	--	--	--	--	--	--
Yellow Bullhead	1	9.7	0.48	3	10.5	0.62	1	8.7	0.46	3	10.8	0.80	--	--	--
Yellow Perch	304	6.5	0.12	172	6.3	0.11	59	6.1	0.10	63	6.2	0.10	130	6.2	0.10

Lake: Minnetonka
 Bay/Basin: Upper Lakes

**Table 22 (continued). Mean Length (in.) and Weight (lbs.) of Gillnet-Sampled Fish
 (continued on following page)**

Species	2006			2005			2004			2003			2002		
	No.	Mean Length	Mean Wght	No.	Mean Length	Mean Wght	No.	Mean Length	Mean Wght	No.	Mean Length	Mean Wght	No.	Mean Length	Mean Wght
Black Bullhead	1	10.8	0.71	--	--	--	9	6.9	0.27	1	12.7	1.49	5	11.0	0.80
Black Crappie	29	8.0	0.27	11	7.4	0.20	20	7.5	0.21	45	6.8	0.18	13	6.5	0.17
Bluegill	331	5.7	0.15	241	5.9	0.16	343	5.3	0.12	143	5.7	0.14	364	5.4	0.11
Brown Bullhead	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Bowfin	--	--	--	--	--	--	--	--	--	--	--	--	1	10.7	0.43
Common Carp	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Green Sunfish	--	--	--	1	28.1	10.25	1	28.1	9.37	1	27.2	9.92	1	28.9	11.10
Hybrid Sunfish	5	5.8	0.17	1	5.1	0.09	--	--	--	1	5.3	0.11	6	4.1	0.05
Largemouth Bass	--	--	--	--	--	--	--	--	--	--	--	--	1	12.9	1.59
Muskellunge	1	53.0	40.00	--	--	--	--	--	--	1	38.5	14.10	1	31.0	6.50
Northern Pike	131	23.4	3.20	117	23.6	3.08	102	22.1	2.55	110	21.9	2.45	146	21.6	2.52
Pumpkinseed	10	4.2	0.05	16	3.8	0.05	6	4.5	0.08	1	5.3	0.11	2	4.1	0.05
Walleye	16	19.2	2.92	13	19.6	3.07	37	19.5	3.20	19	16.3	1.76	47	17.2	2.12
White Crappie	--	--	--	--	--	--	--	--	--	1	7.9	0.19	--	--	--
White Sucker	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Yellow Bullhead	1	10.3	0.62	--	--	--	--	--	--	--	--	--	1	12.3	1.26
Yellow Perch	68	6.1	0.10	96	6.0	0.11	53	5.9	0.09	51	5.7	0.10	19	6.2	0.11

Lake: Minnetonka
 Bay/Basin: Upper Lakes

**Table 22 (continued). Mean Length (in.) and Weight (lbs.) of Gillnet-Sampled Fish
 (continued on following page)**

Species	2001			2000			1999			1998			1997		
	No.	Mean Length	Mean Wght	No.	Mean Length	Mean Wght	No.	Mean Length	Mean Wght	No.	Mean Length	Mean Wght	No.	Mean Length	Mean Wght
Black Bullhead	2	8.3	0.39	2	10.89	0.78	--	--	--	--	--	--	6	10.69	0.66
Black Crappie	7	7.2	0.23	24	6.9	0.19	15	7.5	0.24	11	7.97	0.25	43	6.8	0.18
Bluegill	357	5.9	0.16	246	6.0	0.15	381	5.0	0.09	145	5.28	0.11	1298	5.92	0.16
Brown Bullhead	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Bowfin	--	--	--	--	--	--	--	--	--	--	--	--	2	20.9	2.87
Green Sunfish	--	--	--	--	--	--	4	27.2	8.8	2	27.8	10.64	4	25.5	8.16
Common Carp	1	27.3	8.49	2	26.9	9.2	--	--	--	--	--	--	--	--	--
Hybrid Sunfish	2	5.0	0.11	1	3.9	0.04	1	5.4	0.11	1	4.0	0.04	16	5.4	0.13
Largemouth Bass	--	--	--	1	11.3	0.67	--	--	--	--	--	--	--	--	--
Muskellunge	1	27.9	4.96	2	31.8	11.71	--	--	--	--	--	--	3	38.0	13.1
Northern Pike	80	23.3	3.03	117	21.6	2.41	132	22.1	2.55	75	21.7	2.39	659	21.0	2.25
Pumpkinseed	--	--	--	3	4.3	0.06	3	4.1	0.04	1	3.7	0.04	68	4.2	0.06
Walleye	28	18.6	2.54	51	17.7	2.22	74	16.5	1.89	43	18.2	2.43	111	18.4	2.35
White Crappie	2	4.6	0.04	--	--	--	--	--	--	1	7.8	0.24	4	9.4	0.45
White Sucker	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Yellow Bullhead	--	--	--	1	13.0	1.3	3	13.2	1.37	1	13.3	1.14	34	12.0	1
Yellow Perch	19	5.5	0.08	7	6.6	0.11	107	6.2	0.09	188	5.9	0.09	164	6.6	0.13

Lake: Minnetonka
 Bay/Basin: Upper Lakes

Table 22 (continued). Mean Length (in.) and Weight (lbs.) of Gillnet-Sampled Fish

Species	1992		
	No.	Mean Length	Mean Wght
Black Bullhead	65	10.1	0.62
Black Crappie	129	6.87	0.18
Bluegill	1326	6.37	0.19
Brown Bullhead	--	--	--
Bowfin	1	25.5	5.6
Green Sunfish	17	23.9	6.47
Common Carp	--	--	--
Hybrid Sunfish	6	5.3	0.13
Largemouth Bass	1	17.5	3.4
Muskellunge	--	--	--
Northern Pike	199	22.9	2.93
Pumpkinseed	27	5.1	0.12
Walleye	129	16.2	1.74
White Crappie	49	8.1	0.27
White Sucker	--	--	--
Yellow Bullhead	222	10.4	0.57
Yellow Perch	118	6.9	0.16

Table 23. Length Frequency Distribution of Fish in Gill Nets, 2011

	<u>BLC</u>	<u>BLG</u>	<u>CAP</u>	<u>HSF</u>	<u>NOP</u>	<u>PMK</u>	<u>WAE</u>	<u>WTS</u>	<u>YEB</u>	<u>YEP</u>
< 3.00	-	-	-	-	-	-	-	-	-	-
3.00 - 3.49	-	-	-	-	-	-	-	-	-	-
3.50 - 3.99	-	11	-	1	-	1	-	-	-	-
4.00 - 4.49	1	87	-	1	-	2	-	-	-	-
4.50 - 4.99	2	31	-	-	-	2	-	-	-	-
5.00 - 5.49	-	60	-	5	-	3	-	-	-	3
5.50 - 5.99	1	84	-	2	-	5	-	-	-	72
6.00 - 6.49	-	101	-	4	-	1	-	-	-	101
6.50 - 6.99	4	104	-	-	-	1	-	-	-	71
7.00 - 7.49	12	94	-	-	-	-	-	-	-	36
7.50 - 7.99	15	5	-	1	-	-	-	-	-	17
8.00 - 8.49	20	-	-	-	-	-	-	-	-	3
8.50 - 8.99	11	-	-	-	-	-	-	-	-	-
9.00 - 9.49	4	-	-	-	-	-	-	-	-	1
9.50 - 9.99	2	-	-	-	-	-	-	-	1	-
10.00 - 10.49	-	-	-	-	-	-	-	-	-	-
10.50 - 10.99	-	-	-	-	-	-	1	-	-	-
11.00 - 11.49	-	-	-	-	-	-	-	-	-	-
11.50 - 11.99	-	-	-	-	-	-	-	-	-	-
12.00 - 12.99	-	-	-	-	-	-	-	-	-	-
13.00 - 13.99	-	-	-	-	1	-	-	-	-	-
14.00 - 14.99	-	-	-	-	-	-	-	1	-	-
15.00 - 15.99	-	-	-	-	1	-	-	-	-	-
16.00 - 16.99	-	-	-	-	-	-	-	-	-	-
17.00 - 17.99	-	-	-	-	-	-	-	-	-	-
18.00 - 18.99	-	-	-	-	1	-	2	-	-	-
19.00 - 19.99	-	-	-	-	3	-	2	-	-	-
20.00 - 20.99	-	-	-	-	4	-	3	-	-	-
21.00 - 21.99	-	-	-	-	6	-	3	-	-	-
22.00 - 22.99	-	-	-	-	4	-	2	-	-	-
23.00 - 23.99	-	-	-	-	3	-	-	-	-	-
24.00 - 24.99	-	-	-	-	4	-	1	-	-	-
25.00 - 25.99	-	-	1	-	4	-	4	-	-	-
26.00 - 26.99	-	-	2	-	1	-	1	-	-	-
27.00 - 27.99	-	-	1	-	1	-	1	-	-	-
28.00 - 28.99	-	-	-	-	4	-	3	-	-	-
29.00 - 29.99	-	-	-	-	3	-	-	-	-	-
30.00 - 30.99	-	-	-	-	1	-	-	-	-	-
31.00 - 31.99	-	-	-	-	1	-	-	-	-	-
32.00 - 32.99	-	-	-	-	1	-	-	-	-	-
33.00 - 33.99	-	-	-	-	-	-	-	-	-	-
34.00 - 34.99	-	-	-	-	-	-	-	-	-	-
35.00 - 35.99	-	-	-	-	-	-	-	-	-	-
= > 36.00	-	-	-	-	-	-	-	-	-	-
	<u>BLC</u>	<u>BLG</u>	<u>CAP</u>	<u>HSF</u>	<u>NOP</u>	<u>PMK</u>	<u>WAE</u>	<u>WTS</u>	<u>YEB</u>	<u>YEP</u>
Total	72	577	4	14	43	15	23	1	1	304
Min. Length	4.45	3.78	25.31	3.74	13.23	3.90	10.59	14.72	9.65	5.24
Max. Length	9.76	7.72	27.17	7.68	32.72	6.50	28.54	14.72	9.65	9.41
Mean Length	7.88	5.90	26.37	5.60	23.89	5.24	22.68	14.72	9.65	6.48
# Measured	72	576	4	14	43	15	23	1	1	291
No Lengths for	0	2	0	0	0	0	0	0	0	1

Lake: Minnetonka
 Bay/Basin: Upper Lakes

Table 24. Length at Capture of Northern Pike, Walleye, and Yellow Perch Collected in Gill Nets, 2011 (continued on following page)

Species: Northern Pike
Body-Scale Constant: 2.09
Total Sample Size: 39

Year Class	Age	Sample Size	Average Length	Length At Capture			Length Increments	
				Maximum Length	Minimum Length	Standard Error	Increment	Standard Error
2010	1	1	13.23	13.23	13.23	N/A	2.33	N/A
2009	2	1	15.47	15.47	15.47	N/A	2.46	N/A
2008	3	5	20.72	21.57	19.69	0.340	1.27	0.221
2007	4	15	22.29	25.00	18.50	0.547	0.91	0.070
2006	5	8	24.58	29.33	19.92	1.200	0.85	0.101
2005	6	6	28.08	31.34	24.80	1.068	0.91	0.129
2004	7	2	28.94	29.13	28.74	0.197	0.51	0.025
2003	8	1	32.72	32.72	32.72	N/A	0.54	N/A

Species: Walleye
Body-Scale Constant: 1.10
Total Sample Size: 22

Year Class	Age	Sample Size	Average Length	Length At Capture			Length Increments	
				Maximum Length	Minimum Length	Standard Error	Increment	Standard Error
2008	3	2	14.39	18.19	10.59	3.799	1.31	0.315
2007	4	0	--	--	--	--	--	--
2006	5	8	20.57	22.52	18.50	0.537	0.88	0.055
2005	6	1	24.02	24.02	24.02	N/A	0.43	N/A
2004	7	3	21.99	25.59	20.08	1.799	0.72	0.108
2003	8	0	--	--	--	--	--	--
2002	9	0	--	--	--	--	--	--
2001	10	1	22.05	22.05	22.05	N/A	0.67	N/A
2000	11	1	28.54	28.54	28.54	N/A	0.52	N/A
1999	12	1	26.69	26.69	26.69	N/A	0.25	N/A
1998	13	0	--	--	--	--	--	--
1997	14	2	28.07	28.15	27.99	0.079	0.45	0.062
1996	15	3	25.46	25.98	25.16	0.263	0.42	0.106

Lake: Minnetonka
 Bay/Basin: Upper Lakes

Table 24 (continued). Length at Capture of Northern Pike, Walleye, and Yellow Perch Collected in Gill Nets, 2011

Species: Yellow Perch

Body-Scale Constant: 1.18

Total Sample Size: 37

Year Class	Age	Sample Size	Length At Capture			Length Increments		
			Average Length	Maximum Length	Minimum Length	Standard Error	Increment	Standard Error
2009	2	1	5.59	5.59	5.59	N/A	0.86	N/A
2008	3	9	5.98	6.65	5.24	0.147	0.64	0.060
2007	4	18	6.90	7.91	5.71	0.156	0.52	0.032
2006	5	6	7.89	9.41	6.97	0.349	0.49	0.051
2005	6	1	7.60	7.60	7.60	N/A	0.59	N/A
2004	7	1	8.07	8.07	8.07	N/A	0.37	N/A
2003	8	1	8.19	8.19	8.19	N/A	0.28	N/A

MINNESOTA DEPARTMENT OF NATURAL RESOURCES

SECTION OF FISHERIES

FISHERIES POPULATION ASSESMENT

Survey Date: June 15-June 28, 2011
Date Mapped: 1949
Map I.D.No.: B-0122

Lake Identification and Location

Name: LAKE MINNETONKA---N.W. BAYS

Bay/Basin Station No.: 11-20;34

D.O.W. Watershed
(2)No.: 27-0133 (3)No.: 20-055

Management Meandered:
Area: 314 (4) Yes

(5)County(ies): Hennepin & Carver
Twnshp: 117N Range: 23,24W
Section: 4-9,15-19;12,13,24

(6) Nearest Town: The cities of Orono, Minnetrista, Mound, Spring Park, and Minnetonka Beach make up the shoreline of the North and West Bays of Lake Minnetonka.

(7) Accessibility:

- (a) Designated Public Access (Location and Ownership): See table of access sites.
(b) Other access Areas: See table of access sites.

(8) Reason for Survey/Requested by:

Daryl Ellison, West Metro Area Fisheries Supervisor, as part of ongoing monitoring of Lake Minnetonka.

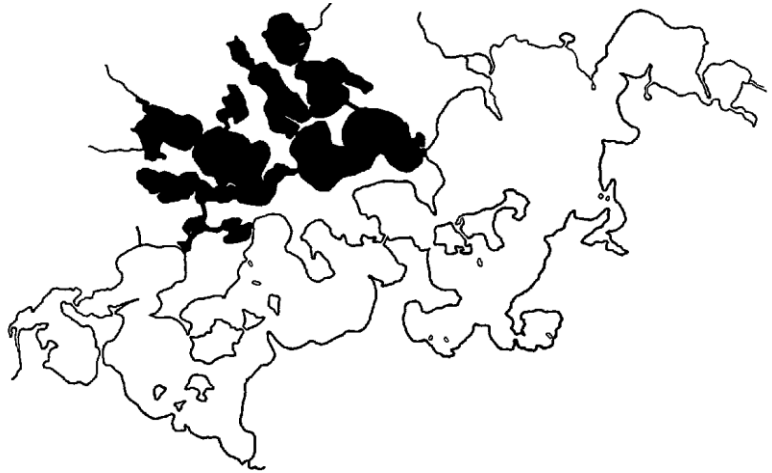


Figure: Northwest Bays sampling area of Lake Minnetonka (shaded).

Lake and Drainage Basin Characteristics and Use

(10)Lake Area: 2,898 acres¹ (Planimetered from 1949 map in 1990) D.O.W. N/A acres
(11)Maximum Depth: 113 ft. Schupp's Lake Type: 22
(12)Littoral Acres: 1,658 acres¹ Percent Littoral: 57.21
(13)Length of Shoreline: 33.40 miles² Greatest length: 4.58 mile(s)

¹ Acreages planimetered from 1949 sounding map by the DNR Aquatic Plant Management program in 1990. That data is used in this assessment so that standardized area is used in various fisheries management programs.

² Length of shoreline does not include channel or dredged harbor shoreline distances. Islands are included in the total.

Lake: Minnetonka
 Bay/Basin: Northwest Bays

Table 25. 2011 Gill Net Catch Summary

250 Foot Experimental Gill Nets

Number of net sets: 6

First net set on: 6-15-11

Last net set on: 6-27-11

Target species: Northern Pike, Walleye, Yellow Perch

Summary by Numbers

Summary by Weight (lbs.)

Species	Total No.	Number Per Set	Lake Class 22 Quartiles			Total Pounds	Pounds Per Set	Mean Weight	Lake Class 22 Quartiles		
			25%	50%	75%				25%	50%	75%
Black Bullhead	4	0.67	0.46	1.63	4.11	1.77	0.30	0.44	0.55	0.70	0.95
Black Crappie	65	10.83	0.22	0.42	1.14	9.86	1.64	0.15	0.24	0.38	0.55
Bluegill	482	80.33	N/A	N/A	N/A	68.66	11.44	0.14	N/A	N/A	N/A
Common Carp	1	0.17	0.13	0.30	0.46	5.66	0.94	5.66	3.11	5.21	7.10
Golden Shiner	1	0.17	0.06	0.11	1.63	0.14	0.02	0.14	0.09	0.12	0.15
Green Sunfish	1	0.17	0.11	0.20	0.46	0.07	0.01	0.07	N/A	N/A	N/A
Hybrid Sunfish	3	0.50	N/A	N/A	N/A	0.30	0.05	0.10	N/A	N/A	N/A
Largemouth Bass	2	0.33	0.25	0.62	1.20	0.87	0.15	0.44	0.55	0.77	1.05
Northern Pike	38	6.33	3.00	5.00	7.89	122.67	20.45	3.23	1.68	2.25	2.80
Pumpkinseed	3	0.50	N/A	N/A	N/A	0.28	0.05	0.09	N/A	N/A	N/A
Walleye	21	3.50	4.01	6.61	9.63	85.29	14.22	4.06	1.12	1.43	1.90
White Sucker	2	0.33	1.02	2.00	3.49	5.04	0.84	2.52	1.52	1.89	2.28
Yellow Bullhead	1	0.17	0.65	2.59	6.43	0.42	0.07	0.42	0.62	0.75	0.95
Yellow Perch	357	59.50	7.06	17.14	33.87	57.98	9.66	0.16	0.12	0.15	0.21

Total fish per set:	163.50	Total pounds per set:	59.84
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Lake: Minnetonka
 Bay/Basin: Northwest Bays

Table 26. Historic Catch per Gill Net Set.

Species	Year															
	2011	2010	2009	2008	2007	2006	2005	2004	2003	2002	2001	2000	1999	1998	1997	1992
Black Bullhead	0.67	0.83	0.17	0.33	0.33	1.67	0.67	2.17	4.17	4.17	4.33	8.17	19.17	1.33	0.88	4.63
Black Crappie	10.83	5.67	5.00	3.33	4.17	5.17	0.83	2.83	3.67	3.83	4.83	6.50	12.50	6.83	8.29	9.42
Bluegill	80.33	60.33	48.17	45.83	25.50	51.00	32.17	51.50	36.17	25.83	28.33	35.00	21.50	19.33	40.18	35.89
Bowfin	--	0.08	--	--	--	0.33	--	0.33	0.17	--	--	0.17	0.33	0.17	0.16	0.06
Brown Bullhead	--	--	--	--	--	--	--	0.17	0.50	--	--	--	0.33	0.50	--	0.35
Common Carp	0.17	0.3	--	1.00	--	0.17	--	0.67	0.33	0.17	0.67	0.33	0.50	0.50	0.76	1.00
Golden Shiner	0.17		0.17	0.67	--	--	--	--	--	0.17	0.00	0.00	1.33	1.17	2.06	0.37
Green Sunfish	0.17	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Hybrid Sunfish	0.50	0.17	0.17	--	0.33	0.17	--	--	0.17	--	--	--	--	0.17	--	0.84
Largemouth Bass	0.33	0.33	--	--	0.33	--	*	*	*	*	0.08	0.04	0.04	--	0.13	0.16
Muskellunge	--	--	--	0.33	0.17	--	*	*	*	*	0.08	0.25	--	0.08	0.05	--
Northern Pike	6.33	6.33	7.83	8.17	9.17	11.33	9.83	11.00	16.17	15.17	12.50	10.50	10.67	8.50	12.88	6.84
Pumpkinseed	0.50	0.5	0.17	0.50	0.33	--	*	*	*	*	0.21	0.33	0.50	0.13	1.25	0.80
Rock Bass	--	--	0.17	--	--	--	--	--	--	--	--	--	--	--	--	--
Walleye	3.50	1.5	3.50	3.50	1.83	3.17	0.83	1.50	3.33	2.33	0.67	7.83	6.00	4.33	5.00	4.26
White Sucker	0.33	0.17	0.33	--	0.50	0.17	0.50	0.50	--	--	--	--	--	--	--	--
Yellow Bullhead	0.17		0.50	0.83	1.00	0.33	--	0.17	0.17	--	0.04	0.33	1.17	0.33	0.94	5.19
Yellow Perch	59.50	30.5	52.00	43.17	27.50	42.33	32.00	39.17	22.17	25.50	33.00	18.33	29.33	48.17	16.24	11.05

* Fish were caught but CPUE is unknown

Lake: Minnetonka
 Bay/Basin: Northwest Bays

**Table 27. Mean Length (in.) and Weight (lbs.) of Gillnet-Sampled Fish
 (continued on following page)**

Species	2011			2010			2009			2008			2007		
	No.	Mean Length	Mean Wght	No.	Mean Length	Mean Wght	No.	Mean Length	Mean Wght	No.	Mean Length	Mean Wght	No.	Mean Length	Mean Wght
Black Bullhead	4	8.8	0.44	5	10.6	0.67	1	8.9	0.38	2	5.5	0.08	2	11.7	0.82
Black Crappie	65	6.3	0.15	34	7.1	0.18	30	6.6	0.16	20	7.3	0.22	25	7.4	0.20
Bluegill	482	5.7	0.14	362	6.1	0.18	289	6.2	0.17	274	6.1	0.18	153	5.8	0.14
Bowfin	--	--	--	1	25.0	5.29	--	--	--	--	--	--	--	--	--
Brown Bullhead	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Common Carp	1	23.0	5.66	1	27.8	9.80	--	--	--	2	25.5	2.30	--	--	--
Golden Shiner	1	7.1	0.14	--	--	--	1	7.7	0.17	4	7.0	0.12	--	--	--
Green Sunfish	1	4.8	0.07	--	--	--	--	--	--	--	--	--	--	--	--
Hybrid Sunfish	3	5.2	0.1	1	5.0	0.10	1	5.7	0.15	--	--	--	2	6.2	0.18
Largemouth Bass	2	9.6	0.44	2	7.8	0.21	--	--	--	--	--	--	2	7.3	0.17
Muskellunge	--	--	--	--	--	--	--	--	--	2	20.7	2.32	1	40.4	16.10
Northern Pike	38	23.4	3.23	38	25.5	3.93	47	24.7	3.83	49	25.7	4.12	55	25.3	3.92
Pumpkinseed	3	4.7	0.09	3	5.5	0.14	1	5.9	0.17	3	4.3	0.07	2	4.6	0.07
Rock Bass	--	--	--	--	--	--	1	8.3	0.39	--	--	--	--	--	--
Walleye	21	22.2	4.06	9	22.2	4.14	21	21.2	3.73	21	20.6	3.30	11	21.8	3.91
White Sucker	2	18.3	2.52	1	8.6	0.26	2	16.9	2.16	--	--	--	3	15.4	1.68
Yellow Bullhead	1	9.3	0.42	--	--	--	3	9.8	0.52	5	6.8	0.62	6	10.6	0.65
Yellow Perch	357	7.1	0.16	183	6.9	0.15	312	6.9	0.16	257	6.8	0.14	165	6.6	0.12

Lake: Minnetonka
 Bay/Basin: Northwest Bays

**Table 27 (continued). Mean Length (in.) and Weight (lbs.) of Gillnet-Sampled Fish
 (continued on following page)**

Species	2006			2005			2004			2003			2002		
	No.	Mean Length	Mean Wght	No.	Mean Length	Mean Wght	No.	Mean Length	Mean Wght	No.	Mean Length	Mean Wght	No.	Mean Length	Mean Wght
Black Bullhead	10	10.6	0.76	4	10.8	0.58	13	11.4	0.76	25	9.5	0.54	25	10.0	0.65
Black Crappie	31	6.4	0.14	5	7.0	0.21	17	7.9	0.27	22	7.3	0.27	23	6.3	0.14
Bluegill	306	6.2	0.19	193	6.3	0.19	309	6.2	0.19	217	5.9	0.17	155	5.9	0.15
Bowfin	2	17.3	1.83	--	--	--	2	19.2	2.35	1	14.6	0.92	--	--	--
Brown Bullhead	--	--	--	--	--	--	1	12.6	1.10	3	8.8	0.41	--	--	--
Common Carp	1	22.7	5.62	--	--	--	4	27.0	9.70	2	21.2	4.82	1	25.9	7.82
Golden Shiner	--	--	--	--	--	--	--	--	--	--	--	--	1	5.9	0.08
Green Sunfish	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Hybrid Sunfish	1	4.3	0.05	--	--	--	--	--	--	1	6.7	0.24	--	--	--
Largemouth Bass	--	--	--	--	--	--	2	18.6	3.70	1	6.3	0.16	1	12.9	1.59
Muskellunge	--	--	--	1	38.7	16.89	--	--	--	1	38.4	14.11	2	30.9	6.64
Northern Pike	68	25.3	4.12	59	24.9	3.83	66	23.8	3.25	97	22.5	2.86	91	24.6	3.30
Pumpkinseed	--	--	--	26	3.8	0.05	22	4.2	0.07	3	5.3	0.12	8	4.1	0.06
Rock Bass	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Walleye	19	20.2	3.17	5	22.0	3.84	9	18.8	2.51	20	18.2	2.55	14	18.8	2.61
White Sucker	1	13.1	0.94	--	--	--	--	--	--	--	--	--	--	--	--
Yellow Bullhead	2	12.0	1.04	--	--	--	1	9.8	0.52	1	11.7	0.82	--	--	--
Yellow Perch	254	6.4	0.13	192	6.4	0.13	235	6.5	0.14	133	6.4	0.19	153	6.3	0.11

Lake: Minnetonka
 Bay/Basin: Northwest Bays

**Table 27 (continued). Mean Length (in.) and Weight (lbs.) of Gillnet-Sampled Fish
 (continued on following page)**

Species	2001			2000			1999			1998			1997		
	No.	Mean Length	Mean Wght	No.	Mean Length	Mean Wght	No.	Mean Length	Mean Wght	No.	Mean Length	Mean Wght	No.	Mean Length	Mean Wght
Black Bullhead	26	9.8	0.59	49	10.34	0.64	115	8.7	0.38	8	10.6	0.71	15	11.2	0.86
Black Crappie	29	6.4	0.17	39	7.45	0.22	75	6.6	0.16	41	6.8	0.18	141	7.5	0.23
Bluegill	170	5.7	0.15	210	6.02	0.16	129	6.0	0.17	116	5.8	0.15	683	6.2	0.17
Bowfin	--	--	--	1	19.13	2.56	2	26.8	7.28	1	19.9	2.56	1	21.3	3.86
Brown Bullhead	--	--	--	--	--	--	2	13.4	1.31	3	11.8	0.77	6	12.9	1.07
Common Carp	4	27.6	10.02	2	29.11	13.78	3	28.4	10.55	3	25.0	7.13	13	25.7	8.09
Golden Shiner	--	--	--	--	--	--	8	6.2	0.09	7	7.2	0.14	35	6.9	0.12
Green Sunfish	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Hybrid Sunfish	--	--	--	--	--	--	--	--	--	1	6.3	0.19	--	--	--
Largemouth Bass	2	10.1	0.57	1	11.30	0.67	1	8.1	0.24	--	--	--	10	11.0	1.01
Muskellunge	2	27.9	4.80	6	24.97	5.06	--	--	--	2	42.7	18.71	4	36.3	11.35
Northern Pike	75	22.9	2.85	63	23.31	3.09	64	22.7	2.83	51	22.7	2.77	219	21.9	2.47
Pumpkinseed	5	4.6	0.09	8	4.90	0.1	12	4.9	0.09	3	3.8	0.04	94	4.3	0.07
Rock Bass	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Walleye	4	22.8	4.56	47	19.67	2.62	36	19.9	3.04	26	19.9	2.93	85	20.1	3.05
White Sucker	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Yellow Bullhead	--	--	--	2	12.89	1.31	7	11.5	0.88	2	10.1	0.61	16	12.0	0.84
Yellow Perch	198	6.5	0.13	110	7.01	0.15	176	6.7	0.13	289	6.4	0.12	276	6.9	0.14

Lake: Minnetonka
 Bay/Basin: Northwest Bays

Table 27 (continued). Mean Length (in.) and Weight (lbs.) of Gillnet-Sampled Fish

Species	1992		
	No.	Mean Length	Mean Wght
Black Bullhead	34	10.8	0.73
Black Crappie	122	6.6	0.17
Bluegill	470	6.1	0.16
Bowfin	3	13.1	0.77
Brown Bullhead	10	11.0	0.72
Common Carp	14	24.7	6.78
Golden Shiner	4	6.8	0.14
Green Sunfish	--	--	--
Hybrid Sunfish	1	3.7	0.05
Largemouth Bass	--	--	--
Muskellunge	--	--	--
Northern Pike	106	23.2	2.94
Pumpkinseed	--	--	--
Rock Bass	--	--	--
Walleye	63	20.1	3.17
White Sucker	--	--	--
Yellow Bullhead	101	10.4	0.60
Yellow Perch	117	6.4	0.11

Table 28. Length Frequency Distribution of Fish in Gill Nets, 2011

	<u>BLB</u>	<u>BLC</u>	<u>BLG</u>	<u>CAP</u>	<u>GOS</u>	<u>GSF</u>	<u>HSF</u>	<u>LMB</u>	<u>NOP</u>	<u>PMK</u>	<u>WAE</u>	<u>WTS</u>	<u>YEB</u>	<u>YEP</u>
< 3.00	-	-	1	-	-	-	-	-	-	-	-	-	-	-
3.00 - 3.49	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3.50 - 3.99	-	-	9	-	-	-	-	-	-	1	-	-	-	-
4.00 - 4.49	-	11	46	-	-	-	-	-	-	-	-	-	-	-
4.50 - 4.99	1	15	35	-	-	1	1	-	-	-	-	-	-	-
5.00 - 5.49	-	3	104	-	-	-	1	-	-	2	-	-	-	-
5.50 - 5.99	-	2	103	-	-	-	1	-	-	-	-	-	-	25
6.00 - 6.49	-	3	84	-	-	-	-	-	-	-	-	-	-	61
6.50 - 6.99	-	3	75	-	-	-	-	-	-	-	-	-	-	96
7.00 - 7.49	-	3	21	-	1	-	-	-	-	-	-	-	-	65
7.50 - 7.99	-	14	3	-	-	-	-	-	-	-	-	-	-	64
8.00 - 8.49	-	6	-	-	-	-	-	1	-	-	-	-	-	35
8.50 - 8.99	-	2	-	-	-	-	-	-	-	-	-	-	-	9
9.00 - 9.49	1	2	-	-	-	-	-	-	-	-	-	-	1	2
9.50 - 9.99	1	-	-	-	-	-	-	-	-	-	-	-	-	-
10.00 - 10.49	-	1	-	-	-	-	-	-	-	-	-	-	-	-
10.50 - 10.99	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11.00 - 11.49	1	-	-	-	-	-	-	1	-	-	-	-	-	-
11.50 - 11.99	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12.00 - 12.99	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13.00 - 13.99	-	-	-	-	-	-	-	-	2	-	-	-	-	-
14.00 - 14.99	-	-	-	-	-	-	-	-	1	-	-	-	-	-
15.00 - 15.99	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16.00 - 16.99	-	-	-	-	-	-	-	-	1	-	2	-	-	-
17.00 - 17.99	-	-	-	-	-	-	-	-	-	-	1	-	-	-
18.00 - 18.99	-	-	-	-	-	-	-	-	3	-	-	2	-	-
19.00 - 19.99	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20.00 - 20.99	-	-	-	-	-	-	-	-	2	-	3	-	-	-
21.00 - 21.99	-	-	-	-	-	-	-	-	1	-	-	-	-	-
22.00 - 22.99	-	-	-	-	-	-	-	-	4	-	8	-	-	-
23.00 - 23.99	-	-	-	1	-	-	-	-	4	-	3	-	-	-
24.00 - 24.99	-	-	-	-	-	-	-	-	5	-	1	-	-	-
25.00 - 25.99	-	-	-	-	-	-	-	-	4	-	2	-	-	-
26.00 - 26.99	-	-	-	-	-	-	-	-	2	-	-	-	-	-
27.00 - 27.99	-	-	-	-	-	-	-	-	3	-	1	-	-	-
28.00 - 28.99	-	-	-	-	-	-	-	-	3	-	-	-	-	-
29.00 - 29.99	-	-	-	-	-	-	-	-	1	-	-	-	-	-
30.00 - 30.99	-	-	-	-	-	-	-	-	-	-	-	-	-	-
31.00 - 31.99	-	-	-	-	-	-	-	-	1	-	-	-	-	-
32.00 - 32.99	-	-	-	-	-	-	-	-	-	-	-	-	-	-
33.00 - 33.99	-	-	-	-	-	-	-	-	-	-	-	-	-	-
34.00 - 34.99	-	-	-	-	-	-	-	-	-	-	-	-	-	-
35.00 - 35.99	-	-	-	-	-	-	-	-	-	-	-	-	-	-
= > 36.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BLB	BLC	BLG	CAP	GOS	GSF	HSF	LMB	NOP	PMK	WAE	WTS	YEB	YEP
Total	4	65	481	1	1	1	3	2	37	3	21	2	1	357
Min. Length	4.96	4.09	0.47	23.03	7.13	4.80	4.53	8.03	13.74	3.58	16.38	18.27	9.25	5.59
Max. Length	11.06	10.20	7.91	23.03	7.13	4.80	5.67	11.06	31.73	5.31	27.91	18.27	9.25	9.25
Mean Length	8.76	6.28	5.69	23.03	7.13	4.80	5.22	9.55	23.41	4.69	22.15	18.27	9.25	7.06
# Measured	4	63	469	1	1	1	3	2	37	3	21	2	1	353
No Lengths for	0	2	13	0	0	0	0	0	1	0	0	0	0	4

Table 29. Length at Capture of Northern Pike, Walleye, and Yellow Perch Collected in Gill Nets, 2011 (continued on following page)

Species: Northern Pike
Body-Scale Constant: 2.09
Total Sample Size: 35

Year Class	Age	Sample Size	Length At Capture			Standard Error	Length Increments	
			Average Length	Maximum Length	Minimum Length		Increment	Standard Error
2010	1	4	14.56	16.02	13.74	0.541	2.68	0.228
2009	2	1	18.43	18.43	18.43	N/A	3.18	N/A
2008	3	3	20.14	23.23	18.31	1.551	1.28	0.062
2007	4	11	22.73	25.98	20.47	0.495	1.22	0.172
2006	5	7	26.68	28.35	24.96	0.483	0.89	0.081
2005	6	8	26.72	37.73	22.05	1.039	0.84	0.145
2004	7	1	29.13	29.13	29.13	N/A	0.65	N/A

Species: Walleye
Body-Scale Constant: 1.10
Total Sample Size: 18

Year Class	Age	Sample Size	Length At Capture			Standard Error	Length Increments	
			Average Length	Maximum Length	Minimum Length		Increment	Standard Error
2008	3	1	17.56	17.56	17.56	N/A	1.03	N/A
2007	4	3	17.73	20.20	16.38	1.235	0.81	0.098
2006	5	0	--	--	--	--	--	--
2005	6	3	24.28	25.79	22.44	0.980	0.73	0.158
2004	7	4	22.65	25.20	20.28	1.024	0.49	0.072
2003	8	2	21.46	22.24	20.67	0.787	0.59	0.127
2002	9	2	22.99	23.11	22.87	0.118	0.49	0.017
2001	10	0	--	--	--	--	--	--
2000	11	0	--	--	--	--	--	--
1999	12	0	--	--	--	--	--	--
1998	13	0	--	--	--	--	--	--
1997	14	0	--	--	--	--	--	--
1996	15	2	22.60	22.83	22.36	0.236	0.30	0.038
1995	16	0	--	--	--	--	--	--
1994	17	0	--	--	--	--	--	--
1993	18	0	--	--	--	--	--	--
1992	19	1	27.91	27.91	27.91	N/A	0.32	N/A

Lake: Minnetonka
 Bay/Basin: Northwest Bays

Table 29 (continued). Length at Capture of Northern Pike, Walleye, and Yellow Perch Collected in Gill Nets, 2011

Species: Yellow Perch
Body-Scale Constant: 1.18
Total Sample Size: 45

Year Class	Age	Sample Size	Length At Capture			Length Increments		
			Average Length	Maximum Length	Minimum Length	Standard Error	Increment	Standard Error
2009	2	4	5.70	5.75	5.59	0.037	0.73	0.091
2008	3	13	6.47	7.17	5.71	0.107	0.63	0.038
2007	4	16	7.41	8.35	6.30	0.149	0.51	0.022
2006	5	10	8.38	9.25	7.68	0.162	0.42	0.033
2005	6	0						
2004	7	2	8.76	9.02	8.50	0.256	0.23	0.043

MINNESOTA DEPARTMENT OF NATURAL RESOURCES

SECTION OF FISHERIES

FISHERIES POPULATION ASSESSMENT

Survey Date: June 16-June 30, 2011

Date Mapped: 1949

Map I.D.No.: B-0122

Lake Identification and Location

Name: LAKE MINNETONKA--LOWER LAKE

Bay/Basin Station No.: 21-33;35-37

D.O.W. Watershed
(2)No.: 27-0133 (3)No.: 20-055

Management Meandered:
Area: 314 (4) Yes

(5)County(ies): Hennepin & Carver
Twnshp: 117N Range: 22,23W
Section:5-8,17,18;1,2,11-16,21-24, 26-28,33-35

(6) Nearest Town: The cities of Minnetonka, Orono, Woodland, Deephaven, Wayzata, Tonka Bay, Shorewood, Greenwood, Excelsior, and Minnetonka Beach make up the shoreline of the Lower Lake basin of Lake Minnetonka.

(7) Accessibility:
(a) Designated Public Access (Location and Ownership): See table access sites.
(b) Other access Areas: See table of access sites.

(8) Reason for Survey/Requested by:
Daryl Ellison, West Metro Area Fisheries Supervisor, as part of ongoing monitoring of Lake Minnetonka.

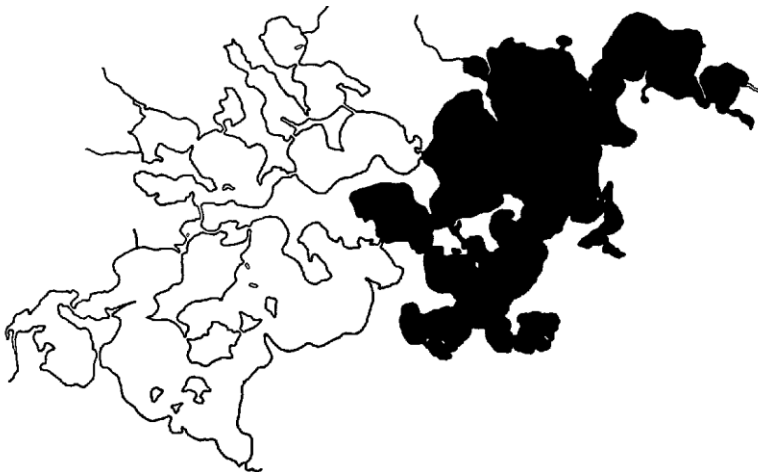


Figure: Lower Lake Minnetonka sampling area (shaded).

Lake and Drainage Basin Characteristics and Use

(10)Lake Area: 6,391 acres¹ (Planimetered from 1949 map in 1990) D.O.W. N/A acres

(11)Maximum Depth: 96 ft. Schupp's Lake Type: 22

(12)Littoral Acres: 2,255 acres¹ Percent Littoral: 35.28

(13)Length of Shoreline: 38.58 miles² Greatest length: 6.76 mile(s)

¹ Acreages planimetered from 1949 sounding map by the DNR Aquatic Plant Management program in 1990. That data is used in this assessment so that standardized area is used in various fisheries management programs.

² Length of shoreline does not include channel or dredged harbor shoreline distances. Islands are included in the total.

Lake: Minnetonka
 Bay/Basin: Lower Lakes

Table 30. 2011 Gill Net Catch Summary

250 Foot Experimental Gill Nets

Number of net sets: 10

First net set on: 6-16-2011

Last net set on: 6-29-2011

Target species: Northern Pike, Walleye, Yellow Perch

Summary by Numbers

Summary by Weight (lbs.)

Species	Total No.	Number Per Set	Lake Class 22 Quartiles			Total Pounds	Pounds Per Set	Mean Weight	Lake Class 22 Quartiles		
			25%	50%	75%				25%	50%	75%
Black Crappie	44	4.40	0.22	0.42	1.14	15.46	1.55	0.35	0.24	0.38	0.55
Bluegill	457	45.70	N/A	N/A	N/A	71.80	7.18	0.16	N/A	N/A	N/A
Green Sunfish	6	0.60	0.11	0.20	0.46	0.32	0.03	0.05	N/A	N/A	N/A
Hybrid Sunfish	4	0.40	N/A	N/A	N/A	0.48	0.05	0.12	N/A	N/A	N/A
Largemouth Bass	2	0.20	0.25	0.62	1.20	1.44	0.14	0.72	0.55	0.77	1.05
Muskellunge	1	0.10	0.10	0.14	0.29	10.39	1.04	10.39	3.06	3.82	5.25
Northern Pike	70	7.00	3.00	5.00	7.89	195.78	19.58	2.80	1.68	2.25	2.80
Pumpkinseed	14	1.40	N/A	N/A	N/A	0.95	0.10	0.07	N/A	N/A	N/A
Rock Bass	20	2.00	1.00	2.93	6.63	5.28	0.53	0.26	0.30	0.41	0.52
Smallmouth Bass	2	0.20	0.20	0.44	0.87	2.32	0.23	1.16	0.94	1.35	1.81
Walleye	41	4.10	4.01	6.61	9.63	99.82	9.98	2.43	1.12	1.43	1.90
White Sucker	3	0.30	1.02	2.00	3.49	3.89	0.39	1.30	1.52	1.89	2.28
Yellow Bullhead	1	0.10	0.65	2.59	6.43	0.73	0.07	0.73	0.62	0.75	0.95
Yellow Perch	87	8.70	7.06	17.14	33.87	9.61	0.96	0.11	0.12	0.15	0.21

Total fish per set:	75.20	Total pounds per set:	41.83
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Lake: Minnetonka
 Bay/Basin: Lower Lakes

Table 31. Historic Catch per Gill Net Set

Species	Year															
	2011	2010	2009	2008	2007	2006	2005	2004	2003	2002	2001	2000	1999	1998	1997	1992
Black Bullhead	--	0.20	--	0.50	--	--	0.20	0.30	0.30	0.50	0.10	0.00	0.00	0.10	0.27	1.41
Black Crappie	4.40	5.40	2.70	1.63	5.80	2.80	1.10	2.60	1.40	2.00	0.90	2.80	1.80	1.60	0.39	1.47
Bluegill	45.70	92.80	41.40	129.38	48.20	74.10	28.70	41.70	43.20	56.88	32.90	12.80	20.80	13.70	69.24	46.26
Bowfin	--	--	--	--	0.10	--	0.10	--	0.10	--	--	--	--	0.10	0.03	--
Brown Bullhead	--	--	--	--	--	0.10	--	0.10	0.10	0.10	0.00	0.00	0.00	0.00	0.12	0.56
Common Carp	--	0.10	--	--	--	0.10	--	0.40	0.10	--	--	0.10	0.20	0.10	0.09	0.12
Green Sunfish	0.60	1.60	0.30	0.63	0.90	0.30	--	--	0.10	0.10	0.10	0.10	0.00	0.00	0.06	0.06
Hybrid Sunfish	0.40	0.70	--	2.13	0.50	1.40	0.80	--	0.80	0.50	0.00	0.10	0.20	0.10	0.24	0.53
Largemouth Bass	0.20	--	--	--	--	--	--	--	0.10	--	0.20	--	0.10	--	0.18	0.24
Muskellunge	0.10	0.10	0.10	--	--	0.10	0.10	--	--	0.10	0.10	0.40	0.00	0.10	0.03	0.00
Northern Pike	7.00	7.80	10.10	10.38	13.50	7.60	10.00	12.80	14.80	23.50	19.20	10.70	7.10	6.80	12.61	9.09
Pumpkinseed	1.40	0.60	2.20	1.25	3.50	1.50	1.00	1.60	0.20	0.60	0.40	0.20	0.60	0.20	0.70	0.76
Rock Bass	2.00	2.70	0.70	3.25	1.70	1.20	0.30	1.40	1.10	0.90	0.80	0.50	0.80	0.80	1.09	2.74
Smallmouth Bass	0.20	--	--	0.25	--	0.20	0.10	--	0.20	0.20	0.00	0.40	0.20	0.00	0.12	0.38
Walleye	4.10	3.50	4.30	4.25	5.10	3.00	1.90	2.40	4.00	6.30	5.90	8.00	10.00	5.40	4.36	5.32
White Sucker	0.30	--	--	0.13	0.10	--	--	--	0.10	--	--	--	--	0.30	0.06	0.35
Yellow Bullhead	0.10	--	0.10	0.13	--	0.10	--	0.20	0.20	0.10	0.10	0.00	0.10	0.20	1.09	5.91
Yellow Perch	8.70	6.10	3.10	2.00	4.00	6.90	9.20	2.20	3.60	0.20	1.60	0.00	3.10	5.80	1.64	1.18

Lake: Minnetonka
 Bay/Basin: Lower Lakes

**Table 32. Mean Length (in.) and Weight (lbs.) of Gillnet-Sampled Fish
 (continued on following page)**

Species	2011			2010			2009			2008			2007		
	No.	Mean Length	Mean Weight	No.	Mean Length	Mean Weight	No.	Mean Length	Mean Weight	No.	Mean Length	Mean Weight	No.	Mean Length	Mean Weight
Black Bullhead	--	--	--	2	11.0	0.72	--	--	--	4	8.1	0.34	--	--	--
Black Crappie	44	8.6	0.35	54	7.9	0.29	27	8.1	0.29	13	8.3	0.30	58	7.3	0.22
Bluegill	457	5.9	0.16	928	5.9	0.16	414	5.9	0.16	1034	5.9	0.17	482	6.1	0.17
Bowfin	--	--	--	--	--	--	--	--	--				1	24.6	5.05
Common Carp	--	--	--	1	30.3	12.55	--	--	--	--	--	--	--	--	--
Brown Bullhead	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Green Sunfish	6	4.5	0.05	16	4.5	0.07	3	4.5	0.06	5	4.4	0.06	9	4.3	0.05
Hybrid Sunfish	4	5.2	0.12	7	4.9	0.1	--	--	--	17	5.5	0.13	5	4.8	0.10
Largemouth Bass	2	11.3	0.72	--	--	--	--	--	--	--	--	--	--	--	--
Muskellunge	1	35.4	10.39	1	43.3	20.36	1	36.0	10.98	--	--	--	--	--	--
Northern Pike	70	22.2	2.80	78	25.0	3.69	101	23.3	3.00	81	24.0	3.21	135	22.2	2.56
Pumpkinseed	14	4.4	0.07	6	4.7	0.1	22	4.1	0.06	10	4.2	0.06	35	4.6	0.08
Rock Bass	20	6.7	0.26	27	6.9	0.27	7	8.5	0.48	26	8.0	0.41	17	7.7	0.38
Smallmouth Bass	2	11.7	1.16	--	--	--	--	--	--	2	15.4	1.59	--	--	--
Walleye	41	18.0	2.43	35	19.1	2.74	43	18.0	2.45	34	15.2	1.64	51	16.9	1.99
White Sucker	3	13.7	1.3	--	--	--	--	--	--	1	17.6	2.37	1	16.1	1.91
Yellow Bullhead	1	11.0	0.73	--	--	--	1	10.0	0.55	1	9.1	0.45	--	--	--
Yellow Perch	87	6.3	0.11	61	6.3	0.11	31	6.0	0.09	16	6.3	0.11	40	6.2	0.09

Lake: Minnetonka
 Bay/Basin: Lower Lakes

**Table 32 (continued). Mean Length (in.) and Weight (lbs.) of Gillnet-Sampled Fish
 (continued on following page)**

Species	2006			2005			2004			2003			2002		
	No.	Mean Length	Mean Weight	No.	Mean Length	Mean Weight	No.	Mean Length	Mean Weight	No.	Mean Length	Mean Weight	No.	Mean Length	Mean Weight
Black Bullhead	--	--	--	2	7.9	0.28	3	9.4	0.63	3	11.3	0.87	5	10.3	0.17
Black Crappie	28	7.3	0.26	11	7.8	0.23	26	7.8	0.25	14	7.6	0.32	16	8.8	0.38
Bluegill	741	5.9	0.16	287	6.0	0.17	417	5.9	0.16	432	5.8	0.15	455	5.5	0.12
Bowfin	--	--	--	1	22.4	3.15	--	--	--	1	20.2	2.54	--	--	--
Common Carp	1	28.7	12.35	--	--	--	4	28.6	11.01	1	28.5	12.57	--	--	--
Brown Bullhead	1	14.0	1.41	--	--	--	1	14.1	--	--	--	--	1	13.7	1.50
Green Sunfish	3	4.3	0.07	--	--	--	--	--	--	--	--	--	1	4.9	0.1
Hybrid Sunfish	14	5.6	0.14	8	6.7	0.24	--	--	--	8	4.7	0.07	5	5.3	0.13
Largemouth Bass	--	--	--	--	--	--	--	--	--	1	6.3	0.11	--	--	--
Muskellunge	1	42.1	15.00	1	38.7	16.89	--	--	--	--	--	--	1	30.9	6.8
Northern Pike	76	24.2	3.57	100	23.9	3.22	128	21.4	2.15	148	21.5	2.60	188	20.0	1.77
Pumpkinseed	15	4.9	0.09	10	3.8	0.06	16	4.1	0.06	2	5.3	0.13	6	4.1	0.06
Rock Bass	12	7.4	0.34	3	9.1	0.59	14	7.7	0.39	11	8.3	0.98	9	8.2	0.48
Smallmouth Bass	2	12.4	1.17	1	14.4	1.69	--	--	--	2	15.9	1.93	2	16.1	2.05
Walleye	30	17.3	2.20	19	18.4	2.56	24	18.4	2.45	40	15.8	1.77	63	17.5	2.17
White Sucker	--	--	--	--	--	--	--	--	--	1	17.6	2.09	--	--	--
Yellow Bullhead	1	10.0	52.00	--	--	--	2	12.0	0.96	2	12.1	1.03	1	12.4	1.17
Yellow Perch	69	5.9	0.10	92	5.9	0.10	22	5.8	0.09	36	5.6	0.08	2	6.4	0.1

Lake: Minnetonka
 Bay/Basin: Lower Lakes

**Table 32 (continued). Mean Length (in.) and Weight (lbs.) of Gillnet-Sampled Fish
 (continued on following page)**

Species	2001			2000			1999			1998			1997		
	No.	Mean Length	Mean Weight	No.	Mean Length	Mean Weight	No.	Mean Length	Mean Weight	No.	Mean Length	Mean Weight	No.	Mean Length	Mean Weight
Black Bullhead	1	9.4	0.48	--	--	--	--	--	--	1	11.3	0.94	9	8.4	0.38
Black Crappie	9	6.7	0.17	28	7.8	0.28	18	8.0	0.32	16	8.0	0.27	13	7.1	0.22
Bluegill	329	5.4	0.13	128	5.1	0.10	208	5.6	0.12	137	6.2	0.17	2285	6.1	0.18
Bowfin	--	--	--	--	--	--	--	--	--	1	24.0	3.58	1	20.9	3.31
Common Carp	--	--	--	1	30.8	13.17	2	28.8	11.00	1	26.2	8.76	3	27.4	9.70
Brown Bullhead	--	--	--	--	--	--	--	--	--	--	--	--	4	13.1	1.09
Green Sunfish	1	5.7	0.13	1	4.6	0.05	--	--	--	--	--	--	2	5.7	0.12
Hybrid Sunfish	--	--	--	1	5.7	0.15	2	5.0	0.09	1	7.2	0.28	8	6.0	0.18
Largemouth Bass	2	10.1	0.57	--	--	--	1	8.1	0.24	--	--	--	6	9.3	0.51
Muskellunge	1	27.9	4.63	4	21.6	1.73	--	--	--	1	42.4	17.36	1	31.1	6.08
Northern Pike	192	20.5	1.88	107	20.6	1.90	71	20.7	2.12	68	22.0	2.53	416	21.0	2.12
Pumpkinseed	4	4.3	0.06	2	4.8	0.08	6	5.3	0.11	2	3.8	0.04	23	4.3	0.07
Rock Bass	8	8.4	0.54	5	9.5	0.65	8	8.7	0.55	8	8.6	0.51	36	7.2	0.32
Smallmouth Bass	--	--	--	4	16.9	2.39	2	13.5	1.39	--	--	--	4	15.7	2.15
Walleye	59	17.2	2.04	80	16.0	1.60	100	14.7	1.42	54	16.1	1.59	144	17.0	1.76
White Sucker	3	16.3	1.76	--	--	--	--	--	--	3	18.5	2.70	2	17.8	2.62
Yellow Bullhead	1	12.0	0.95	--	--	--	1	12.2	0.95	2	13.6	1.23	36	11.2	0.84
Yellow Perch	16	5.7	0.08	--	--	--	31	6.2	0.09	58	5.7	0.08	54	5.8	0.08

Lake: Minnetonka
 Bay/Basin: Lower Lakes

Table 32 (continued). Mean Length (in.) and Weight (lbs.) of Gillnet-Sampled Fish

Species	1992		
	No.	Mean Length	Mean Weight
Black Bullhead	48	9.7	0.54
Black Crappie	50	7.5	0.25
Bluegill	1573	6.3	0.20
Bowfin	--	--	--
Common Carp	4	27.5	11.70
Brown Bullhead	19	11.0	0.68
Green Sunfish	2	4.2	0.10
Hybrid Sunfish	18	5.1	0.13
Largemouth Bass	8	11.8	0.89
Muskellunge	--	--	--
Northern Pike	309	21.3	2.30
Pumpkinseed	26	4.7	0.10
Rock Bass	93	6.7	0.26
Smallmouth Bass	13	14.0	1.61
Walleye	181	17.2	2.04
White Sucker	12	17.9	2.55
Yellow Bullhead	201	11.2	0.79
Yellow Perch	40	5.9	0.10

Table 33. Length Frequency Distribution of Fish in Gill Nets, 2011

	<u>BLC</u>	<u>BLG</u>	<u>GSF</u>	<u>HSF</u>	<u>LMB</u>	<u>MUE</u>	<u>NOP</u>	<u>PMK</u>	<u>RKB</u>	<u>SMB</u>	<u>WAE</u>	<u>WTS</u>	<u>YEB</u>	<u>YEP</u>
< 3.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3.00 - 3.49	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3.50 - 3.99	-	7	1	1	-	-	-	7	1	-	-	-	-	-
4.00 - 4.49	1	59	2	-	-	-	-	1	3	-	-	-	-	-
4.50 - 4.99	-	21	3	1	-	-	-	4	-	-	-	-	-	-
5.00 - 5.49	1	51	-	-	-	-	-	1	3	-	-	-	-	2
5.50 - 5.99	-	72	-	1	-	-	-	1	-	-	-	-	-	28
6.00 - 6.49	-	127	-	1	-	-	-	-	1	-	-	-	-	31
6.50 - 6.99	2	80	-	-	-	-	-	-	4	-	-	-	-	11
7.00 - 7.49	-	38	-	-	-	-	-	-	1	1	1	-	-	10
7.50 - 7.99	5	1	-	-	-	-	-	-	2	-	-	-	-	4
8.00 - 8.49	5	-	-	-	-	-	-	-	1	-	-	-	-	-
8.50 - 8.99	15	-	-	-	1	-	-	-	1	-	1	-	-	-
9.00 - 9.49	5	-	-	-	-	-	-	-	1	-	-	-	-	-
9.50 - 9.99	6	-	-	-	-	-	-	-	1	-	-	-	-	-
10.00 - 10.49	1	-	-	-	-	-	-	-	1	-	1	-	-	-
10.50 - 10.99	2	-	-	-	-	-	-	-	-	-	-	-	-	-
11.00 - 11.49	1	-	-	-	-	-	-	-	-	-	-	2	1	-
11.50 - 11.99	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12.00 - 12.99	-	-	-	-	-	-	-	-	-	-	4	-	-	-
13.00 - 13.99	-	-	-	-	1	-	1	-	-	-	5	-	-	-
14.00 - 14.99	-	-	-	-	-	-	2	-	-	-	2	-	-	-
15.00 - 15.99	-	-	-	-	-	-	4	-	-	1	1	-	-	-
16.00 - 16.99	-	-	-	-	-	-	2	-	-	-	-	-	-	-
17.00 - 17.99	-	-	-	-	-	-	4	-	-	-	2	-	-	-
18.00 - 18.99	-	-	-	-	-	-	6	-	-	-	3	1	-	-
19.00 - 19.99	-	-	-	-	-	-	5	-	-	-	7	-	-	-
20.00 - 20.99	-	-	-	-	-	-	8	-	-	-	4	-	-	-
21.00 - 21.99	-	-	-	-	-	-	6	-	-	-	1	-	-	-
22.00 - 22.99	-	-	-	-	-	-	4	-	-	-	2	-	-	-
23.00 - 23.99	-	-	-	-	-	-	4	-	-	-	3	-	-	-
24.00 - 24.99	-	-	-	-	-	-	2	-	-	-	2	-	-	-
25.00 - 25.99	-	-	-	-	-	-	5	-	-	-	-	-	-	-
26.00 - 26.99	-	-	-	-	-	-	5	-	-	-	1	-	-	-
27.00 - 27.99	-	-	-	-	-	-	2	-	-	-	-	-	-	-
28.00 - 28.99	-	-	-	-	-	-	5	-	-	-	1	-	-	-
29.00 - 29.99	-	-	-	-	-	-	2	-	-	-	-	-	-	-
30.00 - 30.99	-	-	-	-	-	-	1	-	-	-	-	-	-	-
31.00 - 31.99	-	-	-	-	-	-	1	-	-	-	-	-	-	-
32.00 - 32.99	-	-	-	-	-	-	-	-	-	-	-	-	-	-
33.00 - 33.99	-	-	-	-	-	-	-	-	-	-	-	-	-	-
34.00 - 34.99	-	-	-	-	-	-	1	-	-	-	-	-	-	-
35.00 - 35.99	-	-	-	-	-	1	-	-	-	-	-	-	-	-
= > 36.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BLC	BLG	GSF	HSF	LMB	MUE	NOP	PMK	RKB	SMB	WAE	WTS	YEB	YEP
Total	44	456	6	4	2	1	70	14	20	2	41	3	1	86
Min. Length	4.21	3.82	3.94	3.74	8.70	35.43	13.90	3.78	3.98	7.48	7.28	11.02	11.02	5.16
Max. Length	11.18	7.80	4.92	6.38	13.90	35.43	34.72	5.67	10.20	15.83	28.03	18.70	11.02	7.83
Mean Length	8.64	5.85	4.49	5.22	11.30	35.43	22.21	4.40	6.74	11.65	18.00	13.69	11.02	6.29
# Measured	44	455	6	4	2	1	70	14	20	2	41	3	1	84
No Lengths for	0	2	0	0	0	0	0	0	0	0	0	0	0	3

Lake: Minnetonka
 Bay/Basin: Lower Lakes

Table 34. Length at Capture of Northern Pike, Walleye, and Yellow Perch Collected in Gill Nets, 2011

Species: Northern Pike
Body-Scale Constant: 2.09
Total Sample Size: 65

Year Class	Age	Sample Size	Length At Capture			Length Increments		
			Average Length	Maximum Length	Minimum Length	Standard Error	Increment	Standard Error
2010	1	3	15.58	15.59	13.90	0.515	2.88	0..302
2009	2	6	16.48	20.67	14.80	0.869	1.44	0..177
2008	3	10	18.40	21.26	15.24	0.544	1.28	0.126
2007	4	24	21.38	25.79	18.11	0.424	1.05	0.070
2006	5	10	25.18	27.56	21.81	0.673	0.87	0.049
2005	6	7	26.17	28.19	21.85	0.808	0.91	0.106
2004	7	3	29.03	30.67	28.15	0.821	0.89	0.097
2003	8	1	31.89	31.89	31.89	N/A	1.00	N/A
2002	9	1	34.72	34.72	34.72	N/A	0.58	N/A

Species: Walleye
Body-Scale Constant: 1.10
Total Sample Size: 41

Year Class	Age	Sample Size	Length At Capture			Length Increments		
			Average Length	Maximum Length	Minimum Length	Standard Error	Increment	Standard Error
2010	1	1	7.28	7.28	7.28	N/A	1.85	N/A
2009	2	1	8.74	8.74	8.74	N/A	0.58	N/A
2008	3	14	13.69	18.27	10.39	0.475	1.22	0.061
2007	4	0	-	-	-	-	-	-
2006	5	12	19.37	21.57	17.01	0.404	0.67	0.036
2005	6	0	-	-	-	-	-	-
2004	7	7	21.91	26.06	19.02	1.010	0.69	0.056
2003	8	0	-	-	-	-	-	-
2002	9	1	23.70	23.70	23.70	N/A	0.39	N/A
2001	10	2	22.72	23.03	22.40	0.315	0.44	0.105
2000	11	1	28.03	28.03	28.03	N/A	0.38	N/A
1999	12	0	-	-	-	-	-	-
1998	13	1	22.28	22.28	22.28	N/A	0.26	N/A
1997	14	0	-	-	-	-	-	-
1996	15	1	24.88	24.88	24.88	N/A	0.49	N/A

Species: Yellow Perch
Body-Scale Constant: 1.18
Total Sample Size: 25

Year Class	Age	Sample Size	Length At Capture			Length Increments		
			Average Length	Maximum Length	Minimum Length	Standard Error	Increment	Standard Error
2008	3	14	5.84	6.89	5.16	0.116	0.69	0.030
2007	4	6	6.96	7.72	6.38	0.198	0.47	0.037
2006	5	12	7.07	7.83	6.30	0.143	0.43	0.027

Table 35. Length Frequency Distribution of Largemouth Bass Collected by Night Electrofishing, Spring 2011

<u>Length Group</u>	<u>No.</u>
< 3.00	-
3.00 - 3.49	-
3.50 - 3.99	-
4.00 - 4.49	-
4.50 - 4.99	-
5.00 - 5.49	2
5.50 - 5.99	3
6.00 - 6.49	5
6.50 - 6.99	16
7.00 - 7.49	14
7.50 - 7.99	19
8.00 - 8.49	17
8.50 - 8.99	24
9.00 - 9.49	13
9.50 - 9.99	18
10.00 - 10.49	15
10.50 - 10.99	26
11.00 - 11.49	9
11.50 - 11.99	11
12.00 - 12.99	45
13.00 - 13.99	30
14.00 - 14.99	50
15.00 - 15.99	30
16.00 - 16.99	17
17.00 - 17.99	14
18.00 - 18.99	5
19.00 - 19.99	1
20.00 - 20.99	1
21.00 - 21.99	-
22.00 - 22.99	-
23.00 - 23.99	-
24.00 - 24.99	-
25.00 - 25.99	-
26.00 - 26.99	-
27.00 - 27.99	-
28.00 - 28.99	-
29.00 - 29.99	-
30.00 - 30.99	-
31.00 - 31.99	-
32.00 - 32.99	-
33.00 - 33.99	-
34.00 - 34.99	-
35.00 - 35.99	-
= > 36.00	-

<u>LMB</u>	
Total	385
Min. Length	5.08
Max. Length	20.91
Mean Length	11.79
# Measured	385
No Lengths for	0

**Table 36. Size Structure Indices and Condition Metrics
for Largemouth Bass Sampled in Spring, 2011**

Size Distribution		Relative Weight (Wr)	
PSD	59	S-Q	92
RSD-P	21	Q-P	94
RSD-M	0.3	P-M	99
		Average	95

*Stock (S), Quality (Q), Preferred (P), and Memorable (M) lengths (inches) are, respectively: 8, 12, 15, and 20.

Table 37. Length at Capture of Largemouth Bass Collected by Night Electrofishing, Spring 2011

Species: Largemouth Bass
Body-Scale Constant: 0.79
Total Sample Size: 212

Year Class	Age	Sample Size	Length At Capture			Standard Error	Length Increments	
			Average Length	Maximum Length	Minimum Length		Increment	Standard Error
2009	2	19	6.55	7.64	5.08	0.153	1.35	0.098
2008	3	54	8.25	10.91	5.24	0.163	0.96	0.059
2007	4	49	9.89	13.98	7.80	0.177	0.72	0.039
2006	5	17	11.14	14.65	9.57	0.284	0.59	0.037
2005	6	20	12.87	14.92	11.10	0.230	0.51	0.034
2004	7	14	14.43	15.91	11.61	0.318	0.46	0.039
2003	8	10	14.72	16.22	13.03	0.339	0.48	0.025
2002	9	15	16.70	20.91	14.17	0.378	0.46	0.030
2001	10	8	17.71	18.82	16.34	0.321	0.37	0.033
2000	11	5	17.88	18.98	16.97	0.449	0.43	0.047
1999	12	1	19.69	19.69	19.69	N/A	0.31	N/A

Table 38. Back-Calculated Lengths for Each Age Class and Average Annual Increments of Back-Calculated Lengths of Largemouth Bass Collected by Night Electrofishing, Spring 2011

Class	Age	N	1	2	3	4	5	6	7	8	9	10	11	12
2009	2	19	2.74 2.74	5.20 2.45	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
2008	3	54	2.69 2.69	5.06 2.38	7.29 2.23	- -	- -	- -	- -	- -	- -	- -	- -	- -
2007	4	49	2.61 2.61	5.26 2.65	7.44 2.18	9.17 1.73	- -	- -	- -	- -	- -	- -	- -	- -
2006	5	17	2.52 2.52	4.78 2.25	6.82 2.04	8.87 2.04	10.56 1.69	- -	- -	- -	- -	- -	- -	- -
2005	6	20	2.86 2.86	5.27 2.40	7.74 2.47	9.85 2.12	11.30 1.45	12.36 1.06	- -	- -	- -	- -	- -	- -
2004	7	14	2.92 2.92	5.14 2.22	7.81 2.67	10.04 2.23	11.83 1.79	13.11 1.28	13.97 0.86	- -	- -	- -	- -	- -
2003	8	10	2.52 2.52	4.74 2.22	6.91 2.17	8.99 2.08	10.78 1.79	12.31 1.53	13.41 1.10	14.25 0.84	- -	- -	- -	- -
2002	9	15	2.72 2.72	5.07 2.34	7.47 2.40	9.76 2.29	11.58 1.82	13.14 1.56	14.47 1.33	15.48 1.01	16.24 0.76	- -	- -	- -
2001	10	8	2.69 2.69	5.13 2.44	7.66 2.53	9.98 2.32	12.13 2.15	13.52 1.40	14.77 1.25	15.80 1.03	16.66 0.86	17.34 0.68	- -	- -
2000	11	5	3.10 3.10	5.32 2.22	7.13 1.81	9.16 2.03	11.19 2.03	12.97 1.78	14.15 1.18	15.18 1.03	16.04 0.86	16.85 0.81	17.45 0.60	- -
1999	12	1	2.79 2.79	6.83 4.04	9.75 2.92	12.13 2.38	13.93 1.80	15.05 1.12	16.28 1.23	17.11 0.83	17.85 0.74	18.57 0.72	19.09 0.52	19.37 0.28
Mean Length			2.70	5.12	7.39	9.44	11.33	12.86	14.19	15.23	16.38	17.25	17.73	19.37
Mean Increment			2.70	2.43	2.27	2.01	1.75	1.36	1.13	0.97	0.80	0.73	0.59	0.28
Total N			212	212	193	139	90	73	53	39	29	14	6	1

Appendix 1. Major Boat Launch Locations on Lake Minnetonka

Lake Access

Station ID	Ownership	Public Use	Type	Location / Comments
AC - 1	County	Open to Public use	Concrete	Spring Park Bay Access.
AC - 2	N/A	Open to Public use	Concrete	Three Rivers Park District-Lake Minnetonka Regional Park.
AC - 3	City	Open to Public use	Concrete	Cook's Bay Access.
AC - 4	DNR	Open to Public use	Concrete	Gray's Bay Access.
AC - 5	DNR	Open to Public use	Concrete	North Arm Access.
AC - 6	DNR	Open to Public use	Concrete	Maxwell Bay Access.
AC - 7	City	Fee/Permit needed	Concrete	Carson's Bay Access.

Appendix 2. Three-Letter Codes for the Abbreviation of Common Fish Names

Common Name	Abbreviation
Black Bullhead	BLB
Black Crappie	BLC
Bluegill	BLG
Bowfin	BOF
Brown Bullhead	BRB
Comon Carp	CAP
Golden Shiner	GOS
Green Sunfish	GSF
Hybrid Sunfish	HSF
Largemouth Bass	LMB
Muskellunge	MUE
Northern Pike	NOP
Pumpkinseed	PMK
Rock Bass	RKB
Smallmouth Bass	SMB
Walleye	WAE
White Crappie	WHC
White Sucker	WTS
Yellow Bullhead	YEB
Yellow Perch	YEP

State of Minnesota
Department of Natural Resources
Division of Fish and Wildlife
Section of Fisheries

Completion Report

Lake Minnetonka

Fisheries Population Assessment—2011

June 13-June 30, 2011

Part of Federal Aid Project F-29-R(P)-30

Compiled by:

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West Metro Fisheries Management Area

Field Sampling Performed by:

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Approved by: _____
Area Fisheries Manager Date

Approved by: _____
Regional Fisheries Manager Date