public perceptions of the impacts, use, and future of minnesota lakes

results of the 1998 minnesota lakes survey

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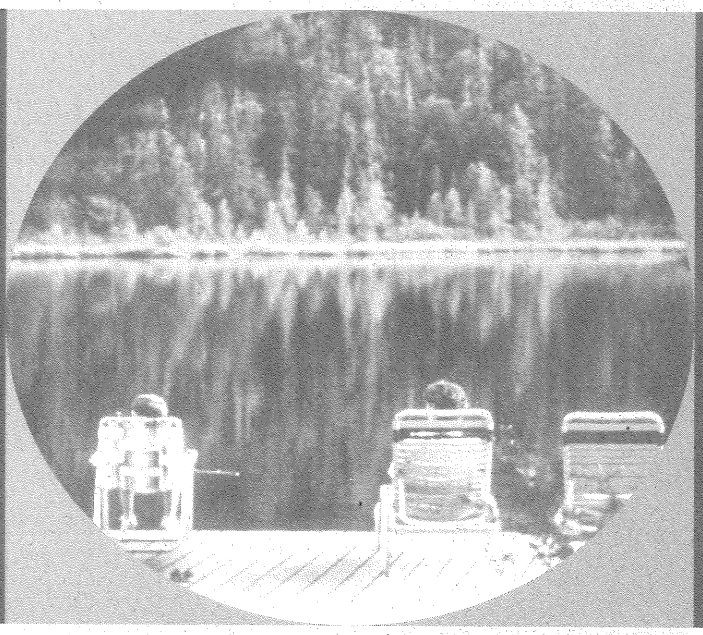

summary report with tables of survey responses

Sea Grant Minnesota

STATE OF MINNESOTA DEPARTMENT OF NATURAL RESOURCES

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Product number: SH 2

Citation:
Anderson, K. A., T. J. Kelly, R. M. Sushak, C. A. Hagley, D. A. Jensen, G. M. Kreag. 1999. Summary report with tables of survey responses on public perceptions of the impacts, use, and future of Minnesota lakes: Results of the 1998 Minnesota lakes survey. A joint publication by the University of Minnesota Sea Grant Program (SH 2) and Minnesota Department of Natural Resources, Office of Management and Budget Services. 89 pp.

Acknowledgments

We wish to thank the many people who made this project a reality. Specifically, from the Minnesota Department of Natural Resources Region II (Northeast): Dan Retka from the Division of Waters, Denny Anderson from Fisheries, and Jim Weseloh from Regional Administration for initiation of the project and help in the development of the survey. In addition, Curt Anderson from the University of Minnesota Duluth, Barb Liukkonen from the University of Minnesota Water Resources Center, and Richard Kruger from the University of Minnesota Extension Service for providing valuable review and helpful comments to improve the survey instrument. Much thanks to the Northeastern Minnesota Lakes Workshop Steering Committee for their volunteer time and effort to reach a consensus about the content, not only for the survey, but for a series of workshops addressing the future of our lakes. Additional financial support was provided by the University of Minnesota's Water Resources Center, College of Natural Resources, and Extension Service; the University of Minnesota Duluth's Center for Freshwater Research and Policy; and the Minnesota Pollution Control Agency, Environmental Outcomes Division. Finally, we give thanks to Judy Zomerfelt, Debbie Kaminov, and the rest of the Sea Grant staff who tirelessly packed envelopes, kept track of mailings, and made the project happen.

TABLE OF CONTENTS

EXECUTIVE SUMMARY

INTRODUCTION

Lakes are one of the hallmark resources of the State of Minnesota. Minnesotans enjoy lakes for many reasons, including recreation, scenery, solitude, and homes. All of these uses combine to create pressures on lake resources. With lakeshore development comes impacts, and these impacts are especially evident if development is poorly managed. Impacts are apparent as changes in water quality and aesthetics, and in aquatic and riparian habitat.

The University of Minnesota Sea Grant Program and the Minnesota Department of Natural Resources designed a survey to learn about the public's perceptions of the condition of Minnesota lakes. Lakes are a public resource, owned in common by all Minnesotans. As such, Minnesotans play a central role in setting the future direction for "their" lakes. This survey offered Minnesotans an opportunity to provide input into public policy discussions about the future management of lake resources. Management programs require public support to be successful. One way to gather that support is to ensure the public has opportunities to affect the design and implementation of the management programs.

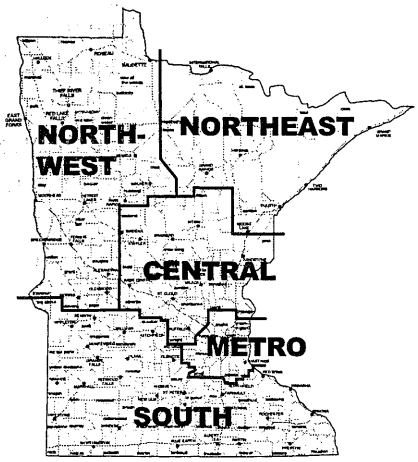
LAKE IMPORTANCE

Lakes, and other natural resources, can be valued in a wide variety of ways, including ways related to the current use of the resource for outdoor recreation, aesthetics, ecological (life support) functions, and contributions to local economies. They can also be valued for their future uses, and for their existence, irrespective of uses. Survey responses indicate that a majority of the Minnesota population, including those who do not use lakes, value lakes in each of these ways.

That lakes are seen as important in many different ways by large portions of the population is the major reason lake management is so complicated and difficult. Unless all of these values are addressed together in a comprehensive fashion, management plans will likely be opposed by a large number of people who feel their values are being ignored.

LAKE USE

Most Minnesotans (77%) who responded to the survey used lakes at least one time in the last year for "any on-water activity like fishing, boating or any other activity that is enhanced by the presence of lakes, such as camping, sightseeing, or living in a shoreland home." Of those who use lakes, the median number of days of use per year is 20 and the mean is 55.



When asked in what region they use lakes the most, the central region came out on top (26% of lake users), followed by the

metro region (23%) , south region (21%), northwest region (16%), and northeast region (14%).

The leading reason for selecting the most-used lake has to do with convenience ('close to home'). Other reasons reported by over 40 percent of lake users include 'scenic,' 'good fishing,' 'quiet' and tradition ('have gone for years').

The top-ranked activity categories are—in declining order—fishing, socializing, appreciating aesthetics/nature, non-fishing boating, and swimming. If non-fishing boating is combined with fishing from boats, the general category 'boating' would be the highest-ranked activity category.

STATUS AND TRENDS OF LAKE CONDITIONS

Minnesota lake users were asked their perceptions of conditions and trends of the lake they use most and, presumably, with which they are the most familiar. The survey made every attempt to tap into lake users' history of direct experience, and have them evaluate the lakes they know well. Specifically, lake users were asked about 18 lake and shoreland characteristics, which were developed for four theme areas: overall conditions; water recreation; fish, wildlife and other aquatic resources; and shoreland conditions.

When analyzing responses to these 18 lake and shoreland characteristics, a general pattern emerged. Most lake users judge current conditions as being pretty good (but not 'excellent') on their highest-use lake, and judge the trend in conditions as 'remained about the same' or little change. When they note a change, more users indicate a trend to poorer conditions than to better conditions. In addition, examining responses by region of use and riparian property ownership leads to only a small number of differences that are noteworthy.

An example illustrates this general pattern of responses. Lake users mainly give positive ratings (70% 'good' to 'excellent') to the current overall condition of the lake they use most often (see table). Very few give clearly negative ratings (3% 'poor'). Ratings are higher for users of the northern regions, especially the northeast region, where 80 percent of users give positive ratings. Riparian property owners perceive current conditions about the same as lake users who do not own shoreland.

Overall condition of lake and shoreland areas of most-used lake

Current condition	Percent of Responses	Trend	Percent of Responses
Excellent	6	Improved	12
Good	64	Remained about the same	63
Fair	26	Worsened	21
Poor	3		
Don't know	2	Don't know	5
Total percent	100	Total percent	100

Since beginning their history on their most-used lake, nearly two-thirds of lake users (63%) have experienced little change ('remained about the same') (see table). For those who reported a trend, more reported worsening conditions (21%) than improving conditions (12%). Differences in trend responses by region of use are not large. Riparian property owners are more likely to report worsened conditions (32%) than other lake users.

OUTLOOK FOR LAKES

The outlook of lake users on water quality and scenic beauty has a lot in common with their perception of recent trends. In their outlooks—as with their perceptions of recent trends—the largest group of lake users expects conditions to remain the same. For lake users who expect conditions to change, more expect conditions to 'worsen' than 'improve.' The outlooks are a little more optimistic than perceptions of recent history, as judged by the gap between 'worsen' and 'improve' responses.

Few regional distinctions are worth noting for water quality history or outlook, or for scenic beauty history or outlook. Lake users who owned riparian property have views similar to other lake users.

IMPACTS ON LAKE WATER QUALITY AND SCENIC BEAUTY

Lake users were asked to identified the major factors that contribute to changes in water and scenic quality on the lakes they use most. The leading factors associated with worsening water quality are runoff from lawns, fields, and urban surfaces. Septic systems and exotic species are also leading factors. Exhaust and fuel leakage from motorized watercraft is frequently identified as having at least a 'moderate impact,' but is less frequently identified as having a 'great' impact. Far down on the list of frequent impact identifications are wastewater discharges from commercial, industrial or municipal sources, and vegetation removal (shoreline, aquatic plant and timber harvest).

Lake users who own riparian property are in agreement with other lake users on the impacts associated with declining water quality. Regionally, however, there is much less consensus among lake users, mainly because the landscapes are so different. In agricultural regions (northwest and especially the south), agricultural factors become more important. In the metro region, urban factors are more important, and on-site septic systems (not that common in the metro region) are less important. Exotic species rank high in the metro region. In the northeast, central and northwest, which have high numbers of shoreland homes, septic systems are the leading factor. In the northeast, timber harvesting becomes a top-ranked factor.

In contrast to water quality, the ranking of factors associated with declining scenic quality is more widely shared among regions. There is also agreement between lake users who own riparian property and those who do not. The top factor—identified by those 25 percent of lake users who perceived a decline in scenic quality on the lake they use most—is clearly shoreland home construction. Over half identified cabin or home development as having a 'great' impact on declining scenic quality. Next in importance are other types of shoreland development: installation of large shoreline structures (such as docks and boat lifts) and road construction near shore. Vegetation (tree and shrub) removal in shoreland areas is the third most frequently mentioned factor impacting scenic quality. Commercial and industrial developments, including resorts and marinas, are not frequently identified as having major impacts.

POSSIBLE SOLUTIONS TO LAKE PROBLEMS

Lake users were asked whether they support or oppose each of 17 solutions to address problems on their most-used lake. The 17 solutions were selected to represent four broad categories of solutions: education, management, regulation/enforcement, and incentives.

In general, there is much statewide support (most above 50%) and little opposition (most below 10%) for proposed solutions regarding lakes in Minnesota. None of the four categories of solutions (education, management, regulation/enforcement, and incentives) appears to be clearly preferable in the public's mind. The finding that regulatory solutions receive about the same level of support as the other categories is consistent with another finding in the survey. Lake users did not feel that the current regulatory environment for lakes and lakeshore is overly restrictive. Few (10%) feel that laws and regulations have 'gone too far.' By far most either feel the current situation is 'about right' or that laws and regulations have 'not gone far enough.' These views of the current regulatory environment are shared widely by riparian property owners and across the state.

Support for specific regulatory solutions—from top to bottom—is: stricter controls for exotic species (72% supporting), stricter septic system regulations to improve water quality (68%), motorboat size and speed limits (66%), more enforcement of existing shoreland protection laws (60%), stricter zoning regulations for shoreline development to maintain natural shoreline character (58%), stricter regulations to protect shoreland trees and shrubs (57%), and increasing minimum lot size requirements (35%).

There is much support for educational programs that address shoreline property owners (79% supporting) and farmers (69%) about their potential impacts on water quality. A majority also supports more educational programs targeting loggers and foresters (54%).

Management techniques are well supported statewide, although support varied depending upon the technique. Increased protection for fish habitat had the largest degree of support (68% supporting). More management for game populations (48%) and more public land purchases (47%) had lower levels of support.

For solutions involving incentive programs, a majority (53% to 61%) of all lake users support: awards programs for shoreland property owners who minimize their impacts, development of financial incentives for environmentally-sound shoreland management, and more erosion control assistance for property owners.

Regionally, there are no significant differences in support or opposition for solutions, except for in the northeast, where users are slightly more opposed to some of the regulatory and management solutions. Riparian property owners have significantly less support for more public land purchases to protect shoreland areas than other lake users. Riparian property owners also differed, to a lesser degree, on support and opposition to three regulatory and one incentive solution.

INTRODUCTION

Lakes are one of the hallmark resources of the State of Minnesota. Minnesotans use lakes for recreational activities such as camping, fishing, boating and water sports. In addition, lakes are valued as places of scenic beauty and solitude. The lakeshores in Minnesota are also used for second home (cabin) development and permanent home sites. In studies of lakeshore development in Itasca County in northeastern Minnesota, lakeshore housing grew at high rates from 1967 to 1982 (103.4 %). Interestingly, the growth has slowed somewhat between the years of 1982 and 1998 to a 31 percent increase in lakeshore housing[1]. This trend may be well be reflected in the rest of northeastern Minnesota (Carlton, Itasca, Koochiching, St. Louis, Lake, and Cook counties). Although the rate of shoreland housing has slowed from the high rates of the 1970s, the impacts of housing growth are still being felt regionally and statewide. People's idea of a lakeshore "cabin" has changed drastically over the years from a one-room bunkhouse to sprawling lakeshore estates. With the regional economy in the late 1990s booming, the amount of disposable income for people is providing fuel for skyrocketing lakeshore real estate values.

All these factors combine to create pressures on lake resources. With human lakeshore development comes impacts, especially evident if development is inadequately managed. Impacts are manifested as changes in water quality, aesthetics, and aquatic and riparian habitat. However, the impacts are difficult to document because of cumulative long-term effects of continued development.

The University of Minnesota Sea Grant Program and the Minnesota Department of Natural Resources (DNR) designed a survey in 1998 to ascertain the public's perceptions of Minnesota lakes. The project was initiated by the Northeast Region of the Minnesota DNR. Concerns expressed by resource managers within the DNR and other agencies about the declining trend in resource quality spurred a discussion about what can be done. One of the first questions asked was, "Do northeastern Minnesotans have the same concerns?" After further discussions about the intent of the survey, the decision was made to focus not only upon northeastern Minnesota but the state as a whole.

The main goal of the survey was to examine how Minnesotans perceive lakes and related shorelands in Minnesota. Lakes are a public resource, owned in common by all Minnesotans. As such, Minnesotans play a central role in setting the future direction for "their" lakes. This survey offered Minnesotans an opportunity to provide input into public policy discussions about the future management of lake resources. Management programs require public support to be successful. One way to gather that support is to ensure the public has opportunities to affect the design and implementation of the management programs.

The survey is divided into sections, each section addressing a fundamental question about the lake resource. Everyone receiving the survey was asked about the values they ascribe to lakes. However, only those who use lakes, as defined in the survey, were asked to fill out the subsequent

[1] Tim Kelly and Joe Stinchfield. Lakeshore Development Patterns in Northeast Minnesota: Status and Trends. Minnesota Department of Natural Resources, Office of Management and Budget Services. July 1998.

sections about the lakes with which they were most familiar: reasons for choosing their most-used lake, lake activities, status and trends of lake conditions, impacts on water quality and scenic quality, and possible solutions to lake problems. A concluding section on demographics and other respondent characteristics was completed by all respondents.

SURVEY METHODS

The survey was mailed to 2,000 individuals in Minnesota. Half of the surveys (1,000) were sent to residents of northeastern Minnesota (Carlton, Itasca, Koochiching, St. Louis, Lake, and Cook counties). The other 1,000 surveys were sent to residents outside the northeast region. The names and addresses for the survey were purchased from Survey Sampling Inc., of Fairfield, Connecticut.

The survey was mailed in April 1998. Up to three follow-up mailings were made to nonrespondents at three-week intervals. A response rate of 49 percent was obtained by the end of the survey period in July 1998.

Because the survey response rate was not higher, a bias check (completed in September 1998) was done in order to determine if non-respondents' answers differed from respondents'. This involved calling non-respondents to ask them a few key questions. In the mail survey responses the major source of bias was interest in the survey topic—a usual source of bias. Lake users were more likely to return the survey than non-lake users. To account for this source of bias, survey results were differentially weighted by frequency of lake use.

Details of the survey methodology are located in Appendix A.

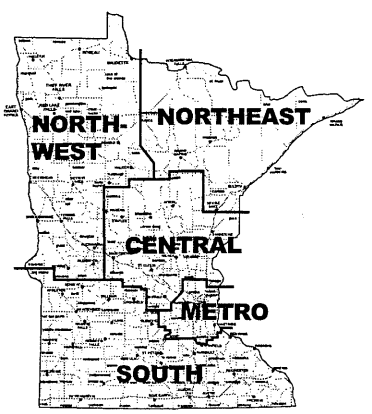
DISCUSSION OF RESULTS

This report is a summary description of results obtained from the survey. Results are split into six sections:

- Lake importance
- Lake use
- Status and trends of lake conditions
- Outlook for lakes
- Impacts on lake water quality and scenic beauty
- Possible solution to lake problems.

Most of the discussion focuses on statewide results, although significant differences among lake use regions (Figure 1) are highlighted, as are differences between riparian property owners and other lake users. Differences are highlighted—as a rule—when responses from a region or property owner group differ from the statewide response by at least 10 percent, a large

Figure 1
Lake Use Regions



enough difference to be both meaningful and unlikely due to chance. For more details, see methodological discussion and survey results in Appendix A.

LAKE IMPORTANCE

Lakes, and other natural resources, can be valued in a wide variety of ways (Table 1). Some of the ways are related to the current use of the resource, including uses for outdoor recreation, aesthetics, ecological (life support) functions, and contributions to local economies. Retaining the option to use lakes in the future is an additional way lakes are valued. Lakes can also be valued regardless of their use; that is, lakes can be viewed as important by an individual whether or not the individual uses them. The survey attempted to gauge all of these preceding values by asking Minnesotans whether they agree or disagree with statements designed to elicit the existence of value in the respondent.

Table 1
Value Categories

Value Category	Value as stated in survey
Present use	
Aesthetic	Minnesota lakes are important to me because of their beauty and atmosphere
Ecological	Minnesota lakes are important to me because of their fish, wildlife, and other natural features
Economic	Minnesota lakes are important to me because of their economic value to surrounding communities
Recreational	Minnesota lakes are important to me because they offer many types of recreation
Future use	Minnesota lakes must be taken care of, so that we can pass them along to future generations for their enjoyment
Non-use	Minnesota lakes are important to me whether or not I use them

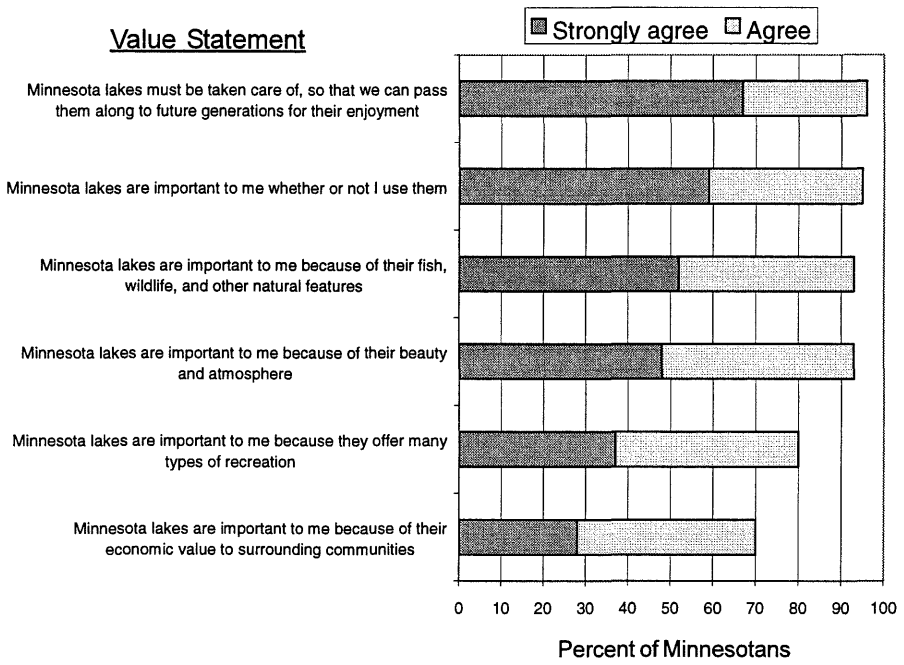
Large portions of the Minnesota population, including those who do not use lakes, value lakes in each of the ways offered in the survey (Figure 2). The most commonly held values by Minnesotans are those dealing with ensuring options for future use ('Minnesota lakes must be taken care of so that we can pass them along to future generations for their enjoyment') and the importance of lakes irrespective of use ('Minnesota lakes are important to me, whether or not I use them'). In terms of present use values, aesthetics and natural features are valued by the most people, and economics by the fewest people. Minnesotans who are regular lake users (including riparian residents), are more likely to hold each value than people who use lakes infrequently or not at all. For example, take the most commonly held value on options for future use. The percent of respondents strongly agreeing that 'Minnesota lakes must be taken care of so that we can pass them along to future generations for their enjoyment' increases from 60 percent for those who do not use lakes to 79 percent for those who use lakes a lot (over 30 days each year). In contrast to quantity of use, the region of lake use has little effect on values.

That lakes are seen as important in many different ways by large portions of the population is the major reason lake management is so complicated and difficult. Unless all of these values are addressed together in a comprehensive fashion, management plans will likely be opposed by a

Figure 2

Importance of Lakes to Minnesotans

(percent who 'strongly agree' or 'agree' with each value statement)

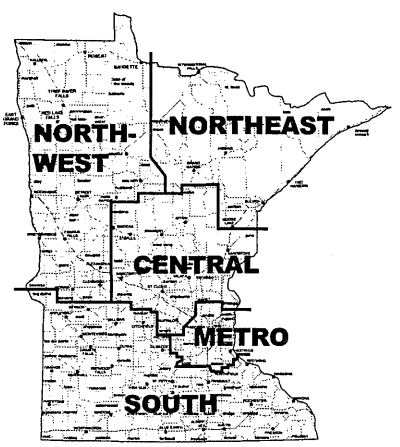


large number of people who feel their values are being ignored. Similarly, to uncomplicate or simplify management plans by stressing one value at the expense of another is likely to encounter stiff opposition from those whose values are being compromised or overlooked.

LAKE USE

Most Minnesotans (77%) who responded to the survey used lakes at least one time in the last year. Lake use is define in the survey as, "any on-water activity like fishing, boating or any other activity that is enhanced by the presence of lakes, such as camping, sightseeing, or living in a shoreland home." Of those who use lakes, the median number of days of use per year is 20 and the mean is 55. Riparian property owners, not surprisingly, have higher rates of use: a median of 60 days and a mean of 135 days per year.

Figure 3
Lake Use Regions



Lake users were asked to specify the Minnesota region they use most. The top-ranked region is the central region (26% of lake users reported this region as their top-use region, see Figure 3). The central region includes the Brainerd lakes

area, a very popular water-recreation destination. The remaining regions in declining order are: metro region (23 percent of lake users), southern region (21 percent), northwest region (16 percent), and northeast region (14 percent).

Within their *most-used lake region*, respondents were asked to identify their *most-used lake* and to indicate why they chose this particular lake. The leading reason for selecting the most-used lake has to do with convenience ('close to home', see Table 2). Other reasons reported by over 40 percent of lake users include 'scenic,' 'good fishing,' 'quiet' and tradition ('have gone for years').

Table 2

What are your reasons for choosing to visit the lake you use most?
(reasons given by more than 25% of lake users from a list of 30 reasons)

Reason	Percent Choosing Reason
Close to home	69
Scenic	54
Good fishing	45
Quiet	45
Have gone for years	40
Good boat access	39
Inexpensive place to recreate	36
Good road access	36
Good water quality	32
Wildlife in area	31
Small lake	29
Friends on lake	28
Few people	27
Large lake	27
Good swimming	27

Reasons people select their most-used lake are tied to the values they hold for lakes. Selecting a lake for scenery and quiet are a manifestation of the strongly held value that lakes are important for their beauty and atmosphere. Likewise, good fishing and good boat access are linked to the importance of lakes for recreation. Good fishing probably overlaps with the value of lakes for their life-support functions ('fish, wildlife and other natural features').

Reasons for choosing a most-used lake are shared widely among regions of the state. The metro region differs in a few regards, although metro lake users share the top two reasons with lake users statewide. Metro lake users give higher rankings to reasons of 'cheap to recreate,' 'good swimming,' and 'good beaches;' and lower rankings to reasons of 'good fishing,' 'quiet,' 'have gone for years,' 'good water quality,' and 'wildlife in area.'

Riparian property owners—with the exception of the specific reason 'have property'— share the top reasons for choosing a lake with lake users statewide.

Lakes are settings for a wide variety of activities, which, as noted above, are important factors in the selection of lakes to use. The top-ranked activity category is fishing (73% of lake users participated in one of the four types of fishing, see Table 3). It is followed by socializing, appreciating aesthetics/nature, non-fishing boating, and swimming. If non-fishing boating is combined with fishing from boats, the general category 'boating' (not shown on the table) would be the

highest-ranked activity (81% would participate in 'boating').

Of the specific activities, 'enjoying lake or river scenery' is participated in the most (64% of lake users). This is followed by fishing from motorized boats (57%), socializing with friends and family (54%), and swimming or wading (49%). The prevalence of activity participation does not differ greatly from region to region in the state, except in the metro region where fishing is less prevalent (46% of metro lake users fish). Nor does participation differ greatly between those who own riparian property and those who do not, except for those activities directly related to home/cabin ownership.

Table 3

Activity Participation In and Around the Lake Used Most

Activity Category	Specific Activity	Percent Participating
Fishing		**73**
	Fishing from motorized boats	57
	Fishing from shore	42
	Ice fishing	30
	Fishing from non-motorized boats	14
Socializing		**70**
	Socializing with friends and family	54
	Picknicking/camping on lakeshore	32
	Enjoying bonfires along shore	25
	Attending water front events	8
Appreciating Aesthetics/Nature		**67**
	Enjoying lake or river scenery	64
	Bird watching or studying nature	29
	Painting or photography	8
Non-Fishing Boating		**57**
	Pleasure boating (motorized)	40
	Canoeing/kayaking/paddleboating	21
	Water skiing, kneeboarding, etc.	18
	Operating personal watercraft (Jet Skis™)	5
	Sailing	4
	Windsurfing	2
Swimming		**49**
	Swimming/wading	49
	SCUBA diving	2
Home/Cabin		**33**
	Spending time at lakeshore home or cabin	33
Trail Use		**25**
	Using trails along shore for hiking, skiing, or mountain biking	21
	Using trails along shore for riding ATV's or snowmobiling	5
Rock Picking/Collecting		**21**
	Skipping rocks	17
	Collecting rocks or shells	13
Snowmobiling		**12**
	Snowmobiling on lakes/rivers	12

STATUS AND TRENDS OF LAKE CONDITIONS

The survey explored people's perceptions about the conditions of lakes. The intent was to have Minnesotans answer two general questions about lakes with which they are familiar: (1) What is the condition of Minnesota lakes and their immediate environs? and (2) Are these conditions getting better or worse?

To get answers to these general questions, specific survey questions were developed within four theme areas. The theme areas were selected to represent the broad dimensions of potential concerns about the lake resource. Not all aspects of potential lake-related concerns can be assessed in a single survey, because the list of possible topics is quite large. But, enough can be assessed to get a good sense of the level of concern people have about important dimensions of the lake resource.

The first theme deals with 'big picture' aspects of the lake resource: water quality, scenic quality and the overall condition of lake and shoreland areas (Table 4). These assessments of general (or overall) conditions form an effective context for evaluating more specific topics. The next theme is water recreation. The emphasis in this theme is on water recreation topics that are linked closely to resource conditions (as opposed to social or managerial conditions): water quality and the lake fishery. Topics dealing with fish and wildlife resources constitute the third theme. The fourth theme focuses on shoreland conditions, and probes the conditions of the riparian zone and its use for shoreland housing.

Table 4
Themes for organizing people's perceptions of the status and trends in lake and shoreland areas

Theme	Indicator Item in Survey
Overall condtions	Overall condition of lake and shoreland areas
	Water quality
	Scenic quality of lake and shoreland areas
Water recreation	Fishing
	Keeper-size pan and game fish
	Level of fish contamination
	Motorized watercraft
Fish, wildlife & other aquatic resources	Diversity of birds and wildlife
	Fish habitat
	Rooted vegetation near shore
	Floating algae and/or scum on the surface
	Presence of exotic species (such as Eurasian watermilfoil, purple loosestrife, etc.)
	Loons
Shoreland conditions	Shoreland housing
	Natural shoreline vegetation (trees and shrubs)
	Condition of land area close to the shoreline (0-100 ft. from shore)
	Condition of land away from the shoreline (100-1000 ft. from shore)

It is important when reading this section to keep in mind 'who' is responding about 'what.' The 'who' is Minnesota lake users (non-users are excluded) and the 'what' are the specific lakes they use most. Lake users are not being asked to comment about lakes with which they have no direct experience. Rather, they are explicitly being asked to assess the lakes with which they have a history of use, and presumably, with which they have a large degree of familiarity. Results indi-

cate that the length of this history of use is, on average, relatively long: a mean of 19 years and a median of 16 years. In other words, the survey makes every attempt to tap into lake users' history of direct experience, and have them evaluate the lakes they know well.

Overall Conditions

Lake users mainly give positive ratings (70% 'good' to 'excellent') to the overall condition of the lake they use most often (Table 5). Very few (3%) give clearly negative ratings, while 26 percent give 'fair' ratings. Ratings are higher for users of the northern regions, especially the northeast region, where 80 percent of users give positive ratings. Riparian property owners perceive conditions about the same as other lake users.

Since beginning their history on their most-used lake, nearly two-thirds of lake users (63%) have experienced little change in overall conditions ('remained about the same'). For those who report a trend, more report worsening conditions (21%) than improving conditions (12%). Differences in trend responses by region of use are not large. Riparian property owners are more likely to report worsened conditions (32%) than other lake users.

Water quality is given lower ratings than the preceding overall lake-shoreland conditions. There are fewer positive ratings ('good' to 'excellent' responses), and more 'fair' to 'poor' ratings. Water quality is judged better in the northern regions, especially the northeast region, where positive ratings reach 71 percent of all responses. In the metro area, water quality receives the fewest positive responses (42% or responses), but poor ratings in the

Table 5
Theme: Overall Conditions

Overall condition of lake and shoreland areas

Current condition	Percent of Responses	Trend	Percent of Responses
Excellent	6	Improved	12
Good	64	Remained about the same	63
Fair	26	Worsened	21
Poor	3		
Don't know	2	Don't know	5
Total percent	100	Total percent	100

Water quality

Current condition	Percent of Responses	Trend	Percent of Responses
Excellent	9	Improved	11
Good	47	Remained about the same	56
Fair	33	Worsened	24
Poor	8		
Don't know	3	Don't know	9
Total percent	100	Total percent	100

Scenic quality of lake and shoreland areas

Current condition	Percent of Responses	Trend	Percent of Responses
Excellent	17	Improved	9
Good	56	Remained about the same	67
Fair	25	Worsened	18
Poor	2		
Don't know	1	Don't know	6
Total percent	100	Total percent	100

metro are largely the same as elsewhere. Riparian property ownership has little effect on responses.

Trends in water quality follow the same pattern as that reported above for the trend in overall lake and shoreland conditions: the majority of lake users see little change (56%). For those who see a change, worsened conditions (24%) predominate over improved conditions (11%). Differences in trend perceptions do not vary substantially by riparian ownership status or region of use. The only notable difference existed for users of the northeast region, where more users (67% of responses) report conditions 'remained about the same.'

Scenic quality is rated the highest in this overall theme group. Nearly three-fourths (73%) of lake users rate scenic quality for the lake they use most as 'good' to 'excellent.' Users of lakes in the northeast give the highest ratings (84 % 'good' to 'excellent'), while users in the metro area give the lowest ratings (59% 'good' to 'excellent'). 'Poor' ratings are still rare in the metro area, however, and comprise only 6 percent of responses. Riparian property ownership has little effect on responses.

The most frequently reported trend for scenic quality is 'remained about the same' or little change. Once again, for those indicating a change, reports of worsening conditions are more frequent than reports of improved conditions. Perceived trends are largely the same from region to region and by riparian ownership status.

Water Recreation

The water recreation items are those that are most closely connected to the lake resource: water quality and the lake fishery. Other recreation concerns (such as recreation facility adequacy) were not addressed in the survey. For all the recreation survey items, responses are given for ***all*** lake users and for ***anglers***, because most of the recreation items are fishing related. Lake users who did not fish are far more likely to respond 'don't know' to these questions, indicating a lack of experience with the queried items. Except for the 'don't know' responses, differences between anglers and all lake users are not substantial for the survey items. Anglers represent 68 percent of all lake users, and are identified by answers to question 6 in the survey on lake-related recreation activities (any type of ice or open water fishing identified a respondent as an angler).

Most anglers (89% of responses) give 'fair' to 'good' ratings to fishing on the lake they use most (Table 6). Few report either 'poor' (5%) or 'excellent' (5%) conditions. This response pattern is similar to that for water quality above. Riparian property owners who fish are slightly more likely to give lower ratings than other anglers. Anglers whose most-used lakes are in the central region responded with higher positive ('good' to 'excellent') ratings (60% of responses), and those whose most-used lake is in southern Minnesota responded with lower positive ratings (33% of responses).

With respect to fishing trends, a slight majority of anglers (56%) report no change. A fairly large portion (30%) indicate worsened conditions, and 8 percent indicate improved conditions. Re-

Table 6
Theme: Water Recreation

Fishing

Current condition	Percent of **All** Responses	Percent of **Angler** Responses	Trend	Percent of **All** Responses	Percent of **Angler** Responses
Excellent	3	5	Improved	7	8
Good	36	46	Remained about the same	45	56
Fair	37	43	Worsened	26	30
Poor	6	5			
Don't know	18	2	Don't know	22	6
Total percent	100	100	Total percent	100	100

Keeper-size pan and game fish

Current condition	Percent of **All** Responses	Percent of **Angler** Responses	Trend	Percent of **All** Responses	Percent of **Angler** Responses
Too much	0	0	Increased	2	3
About right	43	55	Remained about the same	43	54
Too little	32	38	Decreased	27	32
Don't know	25	7	Don't know	29	11
Total	100	100	Total	100	100

Level of fish contamination

Current condition	Percent of **All** Responses	Percent of **Angler** Responses	Trend	Percent of **All** Responses	Percent of **Angler** Responses
Major problem	6	7	Increased	20	21
Moderate problem	14	16	Remained about the same	36	45
Minimal problem	27	34	Decreased	3	4
Not a problem	15	18			
Don't know	38	25	Don't know	41	29
Total	100	100	Total	100	100

Motorized watercraft

Current condition	Percent of **All** Responses	Percent of **Angler** Responses	Trend	Percent of **All** Responses	Percent of **Angler** Responses
Too much	29	29	Increased	52	58
About right	59	65	Remained about the same	34	34
Too little	1	1	Decreased	1	1
Don't know	10	5	Don't know	13	7
Total	100	100	Total	100	100

gional differences are slight with respect to trend perceptions. Riparian property owners who fish are more likely to report 'worsened' fishing (43% of responses) than other anglers.

Concerning keeper-size pan and game fish, a fairly large portion of anglers (38%) report 'too few,' although a slight majority (55%) report about the right number of keepers. A similar majority (54%) report a trend of 'remained about the same.' Almost a third of anglers (32%) indicate a decrease in keeper-size fish; few indicate an increase. Neither perception of trends nor current conditions vary significantly by region of use. Riparian property owners who fish, however, are more likely to report 'too little' for the abundance of keeper-size fish (53% of responses) than other anglers, and are more likely to report a decrease over time (45% of responses).

Fish contamination levels are a 'major' or 'moderate' problem to 23 percent of anglers. They are a slight or nonexistent problem to a majority of anglers (52 %). One-fourth of anglers 'don't know' enough about this topic to comment. A similar fraction (29%) did not know enough about trends to indicate direction over time. For those who felt confident enough to indicate a trend, most report 'remained about the same' (45%), and most of the others report an increase (21%).

Riparian property ownership has little effect on fish-contamination responses. Some regions did stand out as being different from the state as a whole. Anglers who fish in the metro area, are more likely to judge contamination levels as a 'major' or 'moderate' problem (44 % of metro anglers). And anglers who use southern lakes are more likely to indicate (38% of responses) that contamination levels increased on the lake they use most.

Motorized watercraft are judged to be 'about right' in terms of numbers by nearly two-thirds of anglers (most anglers fish from motorized boats) and nearly 60 percent of all lake users. The other third, however, report 'too much,' while almost no one reports 'too little.' With respect to trends, there is little doubt about the perceived direction: nearly 60 percent of anglers report an increase, and nearly everyone else reports no change.

Perceptions of motorized watercraft use are not significantly affected by region of lake use or riparian property ownership.

Fish, Wildlife and Other Aquatic Resources

Response patterns described above basically apply, with varying intensities, to the items in this theme (Table 7 & 8). The pattern is for most lake users to judge current conditions on the lake they use most as 'about' right, and to judge the trend in conditions as 'remained about the same' or little change. When they note a change, more users indicate a trend to poorer conditions than to better conditions. In addition, examining responses by region of use and riparian property ownership leads to only a small number of differences that are noteworthy.

A high proportion of lake users (69%) view the diversity of birds and wildlife on the lake they use most as 'about right', and nearly as many perceive conditions as having 'remained about the same' (68%). Northwest and northeast lake users respond with a higher proportion of 'about right'

Table 7
Theme: Fish, Wildlife and Other Aquatic Resources

Diversity of birds and wildlife

Current condition	Percent of Responses	Trend	Percent of Responses
Too much	2	Increased	4
About right	69	Remained about the same	68
Too little	17	Decreased	11
Don't know	13	Don't know	17
Total percent	100	Total percent	100

Fish habitat

Current condition	Percent of **All** Responses	Percent of **Angler** Responses	Trend	Percent of **All** Responses	Percent of **Angler** Responses
Too much	0	0	Increased	2	2
About right	56	68	Remained about the same	51	63
Too little	18	21	Decreased	18	21
Don't know	26	11	Don't know	29	14
Total percent	100	100	Total percent	100	100

Rooted vegetation near shore

Current condition	Percent of Responses	Trend	Percent of Responses
Too much	17	Increased	19
About right	60	Remained about the same	56
Too little	9	Decreased	9
Don't know	15	Don't know	15
Total percent	100	Total percent	100

Floating algae and/or scum on the surface

Current condition	Percent of Responses	Trend	Percent of Responses
Too much	38	Increased	34
About right	45	Remained about the same	46
Too little	2	Decreased	5
Don't know	16	Don't know	15
Total percent	100	Total percent	100

responses (80% to 84%), while metro users respond with a lower portion of 'about right' (50%) and a higher proportion of 'too little' (25%). Riparian property owners also respond with a high fraction of 'about right' responses (85%). With respect to trends, neither region of use nor riparian property ownership has any substantial effect on responses.

Fish habitat evaluations are given for all lake users and anglers, because (as above with fishing-related recreation), non-anglers are less confident in their assessments of fishing items, as evidenced by their large number of 'don't know' responses. Responses by anglers for fish habitat are nearly the same as the responses in the preceding paragraph about diversity of birds and wildlife: nearly 70 percent think conditions are 'about right' on the lake they use most, and nearly two-thirds report 'remained about the same' for the change they personally experienced on their most-used lake. Once again, for those who reported a trend, worsening conditions (in this case 'decreased' fish habitat) are reported by more anglers (21%) than improved conditions (2%).

Region-of-use differences are not sizable for either the current condition or trends in fish habitat. Riparian owners who fish, however, do perceive some differences from other anglers. Riparian owners more frequently see 'too little' fish habitat (37%), and more see 'decreased' habitat over time (37%). This same group—as presented above—gave lower ratings to the condition of the recreational fishery, and more saw a worsening trend than other anglers.

Rooted aquatic vegetation abundance is more likely to be judged as 'about right' than floating algae, which has a relatively high proportion of 'too much' responses (38%). The trend for algae is skewed toward 'increase' abundance, much more so than for rooted aquatics. Algae is seen as particularly high in the south; it is judged 'too much' by 61 percent of lake users in southern Minnesota. These same southern lake users are much more likely to report an 'increased' trend in algae (50% of responses). In contrast, users of lakes in the northern and central regions give far lower 'too much' algae responses (24% to 28% of responses), and are less likely to indicate an increase in algae (23%).

Table 8
Theme: Fish, Wildlife and Other Aquatic Resources (continued)

Presence of exotic species (such as Eurasian watermilfoil, purple loosestrife etc.)

Current condition	Percent of Responses	Trend	Percent of Responses
Major problem	11	Increased	25
Moderate problem	11	Remained about the same	25
Minimal problem	19	Decreased	2
Not a problem	21		
Don't know	38	Don't know	48
Total percent	100	Total percent	100

Loons

Current condition	Percent of Responses	Trend	Percent of Responses
Too much	1	Increased	4
About right	45	Remained about the same	56
Too little	38	Decreased	16
Don't know	16	Don't know	25
Total percent	100	Total percent	100

Response differences due to riparian ownership are minor for algae and rooted aquatics, and regional differences are minor for rooted aquatics.

Exotic species are viewed as a 'major' or 'moderate' problem by 22 percent of lake users. Many lake users (38%) did not know enough about exotics to feel confident in answering the question. A similarly large percent responded 'don't know' to the trend in exotics on the lake they use most. In terms of trends, more lake users indicate an increase than a decrease.

Metro lake users are the most likely to judge exotics as a 'major' or 'moderate' problem (38%), perhaps because of the number of metro lakes with infestations of Eurasian watermilfoil. They are also the most likely to indicate an increase in the problem (38%). The reverse is true for lake users in the northwest and northeast. There, the level of the problem is viewed as less (10% to 12% 'major' or 'moderate' problem), and the frequency of 'increase' responses is lower (12% to 13%). Riparian property owners are less likely to say they do not know about the current exotics situation than other lake users, and more likely to indicate that exotics are not a problem (34% of responses). Riparian property owners are no different in their view of trends, however.

Loons—indicative of solitude and little human impact on natural lake habitat—are seen as 'too little' in terms of abundance by 38 percent of all lake users. In the northwest and northeast, where loons have historically been common, a high portion of lake users give 'about right' responses (70% to 71%), fewer give 'too little' responses (19% to 25%), and about two-thirds (63% to 70%) indicate 'remained about the same' for the change on the lake they use most. Users of the central region are also more likely than lake users statewide to give 'about right' responses to current conditions (58%). Riparian property owners, too, are more likely to give 'about right' responses (61% of responses), which is not surprising since most riparian property owners have their most-used lake in the northern and central regions.

Shoreland Conditions

Responses for shoreland items are presented for all lake users as well as riparian property owners, because riparian property owners have a large interest in, and direct effect on, shoreland areas.

The conditions of the natural shoreline vegetation, condition of land near the shore, and condition of land away from the shore are judged as being in pretty good shape by lake users for the lake they use most (Table 9). Nearly 80 percent perceive natural shoreline vegetation as 'about right' and some 60 percent see the condition of land near and away from shore as 'good' to 'excellent'. Few see the land near and away from shore as 'poor.' With respect to trends for these items, 60 to 70 percent of lake users see conditions as having 'remained about the same.' For those who perceive a trend, the typical pattern emerges: more see worsening conditions than improved conditions. Region of lake use and riparian property ownership do not substantially affect responses to current conditions or trends for these shoreland items.

There is a good deal of statewide consensus on shoreland housing. A slim majority sees current conditions as 'about right,' while most of the rest see 'too much' housing. The trend is decidedly

Table 9
Theme: Shoreland Conditions

Natural shoreline vegetation (trees and shrubs)

Current condition	Percent of **All** Responses	Percent of **Riparian Owner** Responses	Trend	Percent of **All** Responses	Percent of **Riparian Owner** Responses
Too much	2	3	Increased	5	2
About right	74	79	Remained about the same	64	69
Too little	16	15	Decreased	18	25
Don't know	7	3	Don't know	14	4
Total	100	100	Total	100	100

Condition of land area close to shoreline (0-100 ft. from shore)

Current condition	Percent of **All** Responses	Percent of **Riparian Owner** Responses	Trend	Percent of **All** Responses	Percent of **Riparian Owner** Responses
Excellent	7	3	Improved	8	3
Good	55	58	Remained about the same	63	62
Fair	28	29	Worsened	18	28
Poor	5	6			
Don't know	5	4	Don't know	11	7
Total	100	100	Total	100	100

Condition of land area away from shoreline (100-1000 ft. from shore)

Current condition	Percent of **All** Responses	Percent of **Riparian Owner** Responses	Trend	Percent of **All** Responses	Percent of **Riparian Owner** Responses
Excellent	8	7	Improved	8	0
Good	55	56	Remained about the same	67	71
Fair	25	24	Worsened	10	18
Poor	2	4			
Don't know	10	9	Don't know	15	11
Total	100	100	Total	100	100

Shoreland housing

Current condition	Percent of **All** Responses	Percent of **Riparian Owner** Responses	Trend	Percent of **All** Responses	Percent of **Riparian Owner** Responses
Too much	36	39	Increased	51	59
About right	50	53	Remained about the same	35	36
Too little	2	3	Decreased	1	0
Don't know	12	5	Don't know	13	5
Total percent	100	100	Total percent	100	100

skewed toward 'increased' housing. Riparian property owners are in general agreement with other lake users on shoreland housing. Most region of use differences are minor, too. The only notable difference is for the northwest, where lake users give fewer 'too much' responses (19%) and more 'about right' responses (63%).

OUTLOOK FOR LAKES

The preceding section describes lake users' views of current conditions and recent trends. This section examines their future prospects for the lake resource. Their outlook is examined for lake water quality and scenic beauty on the lakes in the region they use most.

The outlook of lake users has a lot in common with their perception of recent trends. In their outlooks, the largest group of lake users still expects conditions to remain the same (Table 10). More users, however, when compared with their perception of recent history, either expect conditions to improve or worsen. For water quality, the portion that expects improvements is nearly as large as the portion that expects conditions to worsen. For scenic beauty, the portion expecting improvements is smaller than that expecting worse conditions.

Table 10
History and Outlook for Water and Scenic Quality

		Responses (percent)				
		. . . Improve(d)	. . . Remain(ed) about the same	. . . Worsen(ed)	Don't Know	Total Percent
WATER QUALITY						
History	In general, **over the last ten years**, lake water quality in the region I use most has . . .	13	51	22	14	100
Outlook	In general, **over the next ten years**, I expect lake water quality in the region I use most to . . .	26	40	28	7	100
SCENIC QUALITY						
History	In general, **over the last ten years**, scenic beauty of lakes in the region I use most has . . .	12	59	22	7	100
Outlook	In general, **over the next ten years**, I expect lake scenic beauty in the region I use most to . . .	18	50	26	5	100

There are few regional distinctions worth noting for water quality history or outlook, or for scenic beauty history or outlook. And lake users who owned riparian property have basically the same views on all of these questions as other lake users.

Only metro region lake users have a slightly different perspective on one topic: outlook on water quality. Metro lake users are more polarized than those in other regions: more users expect improvements (36%), more expect conditions to worsen (38%), and fewer expect conditions to

remain about the same (23%).

The outlooks are a little more optimistic than perceptions of recent history, as judged by the gap between 'worsen' and 'improve' responses. But worsen responses still exceed (albeit by narrower margins) improve responses, and the largest response category is for conditions to remain the same. Improvement, overall, is not expected, even though there is room for improvement in the perceptions of current water and scenic quality (as indicated in a previous section). Neither water nor scenic quality is seen by many lake users as predominately 'excellent,' although both are seen as in pretty good shape (mainly 'good' to 'excellent').

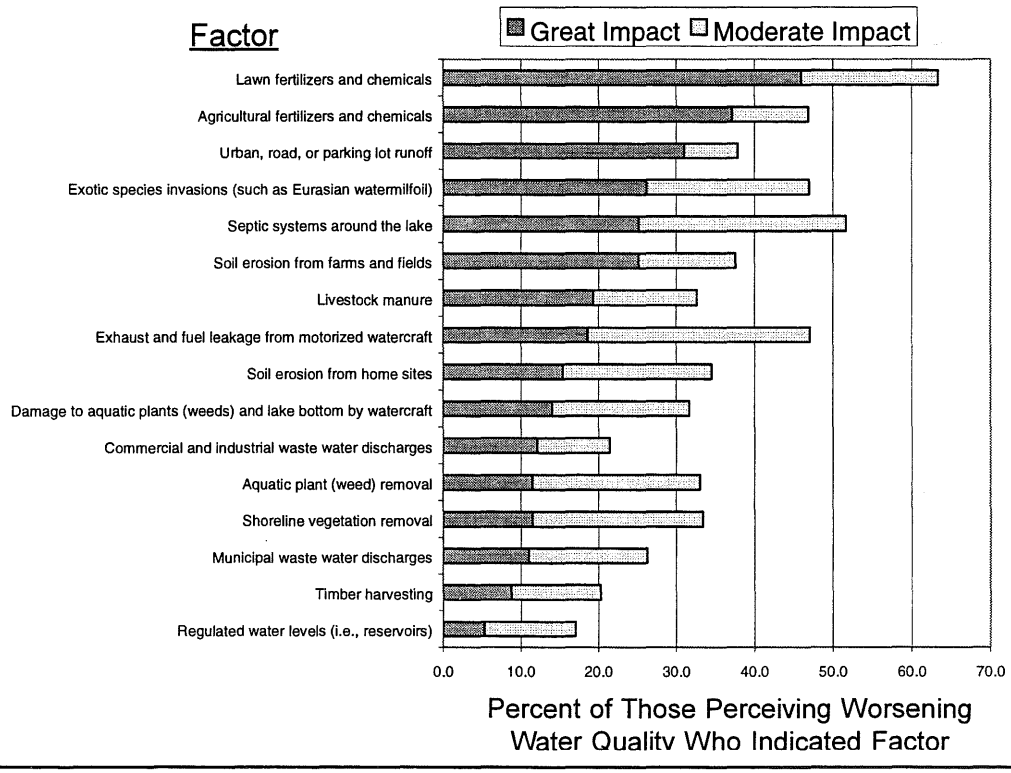
IMPACTS ON LAKE WATER QUALITY AND SCENIC BEAUTY

Lake users were asked to identify the major factors that contribute to changes in water and scenic quality on the lakes they use most. Specifically, lake users were asked to evaluate each factor according to its degree of impact: great, moderate, slight and none.

For the one-third of lake users who indicated a worsening in water quality of the lake they use

Figure 4

Magnitude of a Factor's Impact on Worsening Water Quality



most, the leading factors associated with that change are related to runoff from lawns, fields and urban surfaces (Figure 4). Septic systems are also a leading factor associated with declining water quality: about one-quarter identify septic systems as a 'great' impact and another quarter identify it as a 'moderate' impact. Far down on the list of frequent impact identifications are wastewater discharges from commercial, industrial or municipal sources. Exotic species are nearly equivalent to septic systems, a leading factor. Vegetation removal (shoreline, aquatic plant and timber harvest) are all identified infrequently as significant impacts. Exhaust and fuel leakage from motorized watercraft is frequently identified as having at least a 'moderate impact,' but is less frequently identified as having a 'great' impact.

Lake users who own riparian property are in good agreement with other lake users on the impacts associated with declining water quality. Regionally, however, there is much less consensus among lake users, mainly because the regional landscapes are so different. In agricultural regions (northwest and especially the south), agricultural factors become more important (Table 11). In the metro region, urban factors are more important, and on-site septic systems (not that common in the metro region) are less important. Exotic species rank high in the metro region, perhaps because of the number of metro lakes with infestations of Eurasian watermilfoil. In the northeast and central and northwest, which have high numbers of shoreland homes, septic systems are the leading factor. In the northeast, timber harvesting becomes a top-ranked factor.

Table 11

Top-Ranked Factors Impacting Water Quality by Region

(factors ranked on the percent of 'great' plus 'moderate' impact responses)

Northwest Region

Rank	Factor
1	Septic systems around the lake
2	Agricultural fertilizers and chemicals
3	Exhaust and fuel leakage from motorized watercraft
4	Lawn fertilizers and chemicals
5	Soil erosion from farms and fields

Northeast Region

Rank	Factor
1	Septic systems around the lake
2	Lawn fertilizers and chemicals
3	Exhaust and fuel leakage from motorized watercraft
4	Timber harvesting
5	Urban, road, or parking lot runoff

South Region

Rank	Factor
1	Agricultural fertilizers and chemicals
2	Lawn fertilizers and chemicals
3	Septic systems around the lake
4	Soil erosion from farms and fields
5	Livestock manure

Central Region

Rank	Factor
1	Septic systems around the lake
2	Lawn fertilizers and chemicals
3	Exhaust and fuel leakage from motorized watercraft
4	Aquatic plant (weed) removal
5	Shoreline vegetation removal

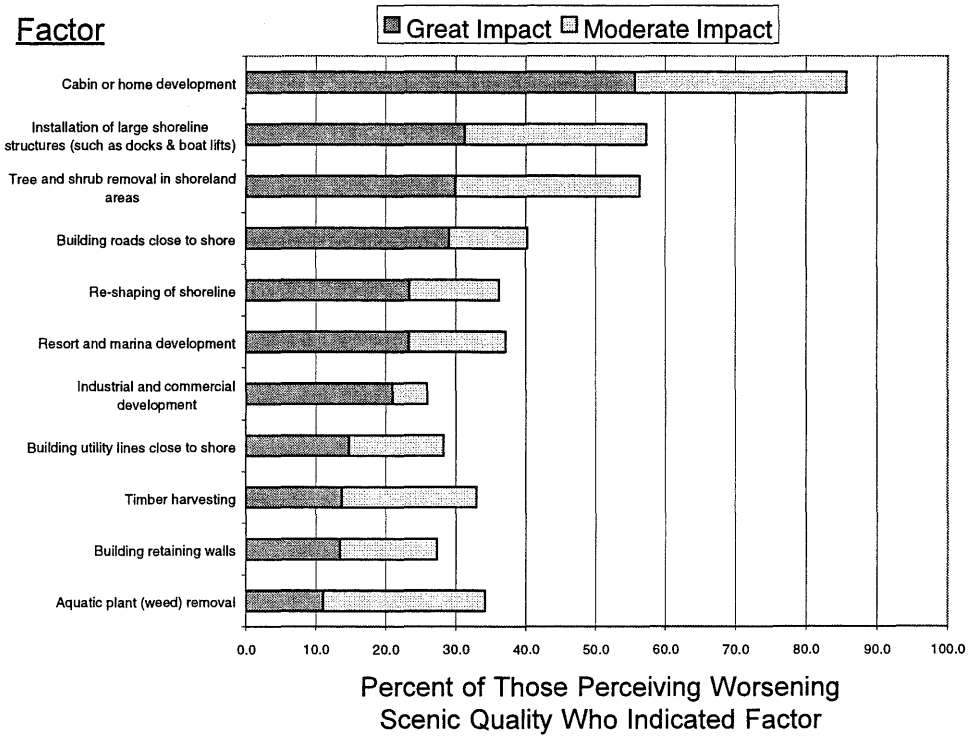
Metro Region

Rank	Factor
1	Lawn fertilizers and chemicals
2	Urban, road, or parking lot runoff
3	Exhaust and fuel leakage from motorized watercraft
4	Exotic species invasions (such as Eurasian watermilfoil)
5	Soil erosion from home sites

In contrast to water quality, the ranking of factors associated with declining scenic quality is far more widely shared among the regions. There is also agreement between lake users who own riparian property and those who do not. The top factor—identified by those 25 percent of lake users who perceived a decline in scenic quality on the lake they use most—is clearly shoreland home construction (Figure 5). Over half identified cabin or home development as having a 'great' impact on declining scenic quality. Next in importance are other types of shoreland development: installation of large shoreline structures (such as docks and boat lifts) and road construction near shore. Vegetation (tree and shrub) removal in shoreland areas is the third most frequently mentioned factor impacting scenic quality. Commercial and industrial developments, including resorts and marinas, are not regularly identified as having major impacts.

Figure 5

Magnitude of a Factor's Impact on Worsening Scenic Quality



POSSIBLE SOLUTIONS TO LAKE PROBLEMS

The survey explored peoples' opinions about possible solutions to problems they identified for the lake they use most. Specifically, lake users were asked whether they support or oppose each of 17 solutions to address problems on their most-used lake. The 17 solutions were selected to represent four broad categories of solutions: education, management, regulation/enforcement, and incentives (Table 12). The intent is to examine support for solutions not only on an item-by-item basis, but also by category, to see if certain categories are clearly preferable in the public's mind to others. For example, does the public believe that regulation is preferable to education or incentives to solve practical problems? Or, is education the alternative with the most support?

Table 12

Categories of Possible Solutions to Address Problems on the Lake Used Most

Category	Possible Solution
Education:	More shoreline property owner education regarding impacts on water quality
	More farmer education about the impacts of farminig practices on water quality
	More logger/forester education about the impacts of logging on lake quality
Management:	Increased protection for fish habitat
	More management for non-game wildlife populations (song birds, loons)
	More management for game populations
	More public land purchases to protect shoreland areas
Regulation/Enforcement:	Stricter controls for exotic species (such as Eurasian watermilfoil)
	Stricter septic system regulations to improve water quality
	Motorboat size and speed limits to protect shoreland areas
	More enforcement of existing shoreland protection laws
	Stricter zoning regulations for shoreline development to maintain natural shoreline characte
	Stricter controls to protect shoreland trees and shrubs
	Increase minimum lot size requirements
Incentive:	More erosion control assistance for property owners
	Awards program for shoreland property owners who minimize their impacts
	Development of financial incentives for environmentally-sound shoreland management

The educational category of solutions deals with the supply of information to shoreland property owners, farmers, and loggers about their impacts on the lake resource. The management category deals with techniques that can be carried out by agencies charged to administer natural resource management programs. It includes fish habitat protection, management for game and nongame populations, and public land purchases.

The regulation and enforcement category focuses mainly on lessening the impacts of shoreland development through stricter controls or more enforcement of existing controls. The final category is incentive programs, which are another way to encourage people to reduce their impacts

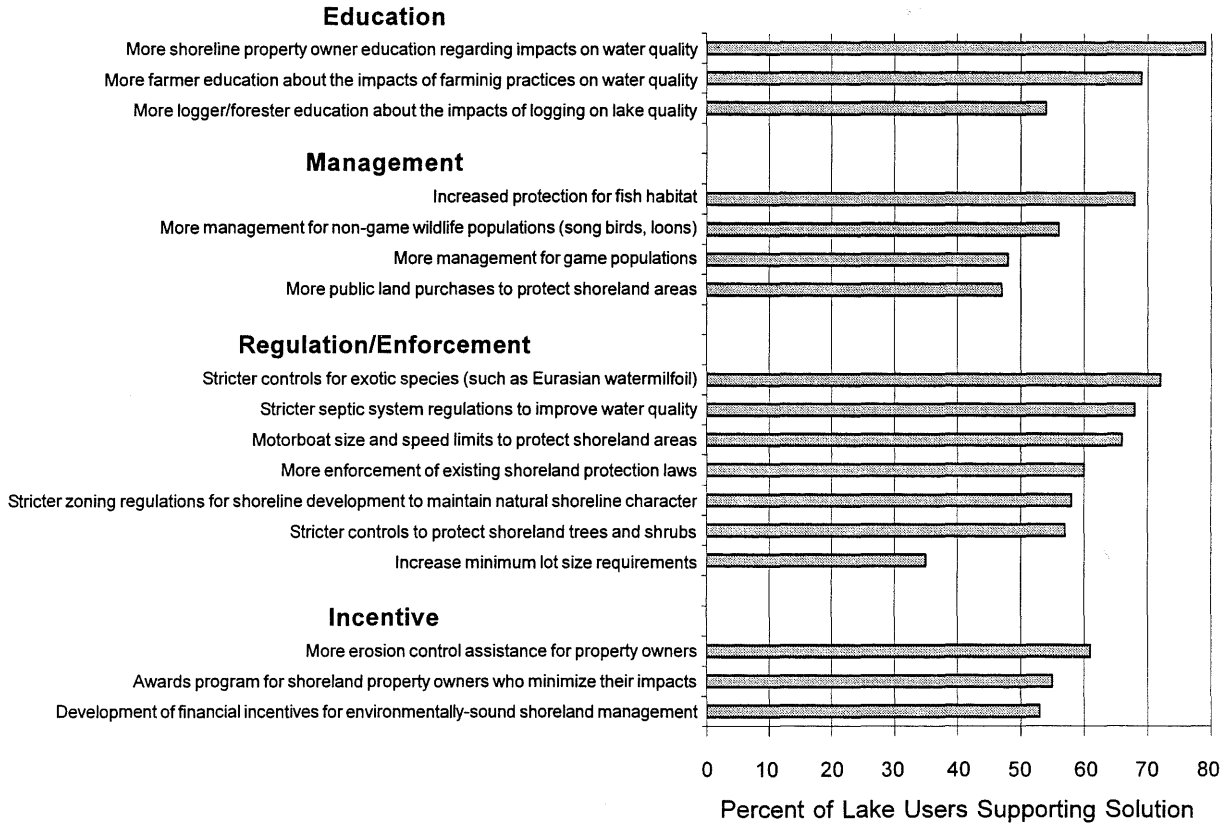
on the lake environment. Incentives included awards for sound shoreland management and erosion control assistance.

In general, there is statewide support for proposed solutions regarding lakes in Minnesota (Figure 6). Although there are differences in support for each solution, generally the level of support was high for all four categories of solutions (most above 50% supporting); education, management, regulation, and incentives. None of the categories appears to be clearly preferable in the public's mind. The level of opposition for solutions regarding lakes is low and ranged from 1 to 17 percent with most opposition below 10 percent.

Figure 6

Support for Solutions to Address Problems on Lake Used Most

(question response categories are 'support', 'oppose', 'neutral', and 'don't know')



Educational Solutions

Statewide, there is much support for educational programs that address shoreline property owners and farmers about their potential impacts on water quality (79% and 69% supporting, respec-

tively). Slightly fewer people (54%) support more educational programs targeting loggers' and foresters' impacts on lake quality. More people are neutral or don't know about logger or forester education as compared with shoreline property owner or farmer education. Overall, 5 percent or fewer oppose educational programs, with only 1 percent opposing education for shoreland property owners. Regionally, the support and opposition to education programs does not differ significantly from that of the statewide responses.

Riparian property owners have a high level of support for all education programs (61% to 84%) and compare well with statewide responses. A very high percentage (84%) support education for themselves and others like them about their impacts on water quality. Only 1 percent oppose such a solution. In fact, education for shoreline property owners receives the most support of all the proposed solutions among riparian property owners.

Management Solutions

Management techniques are well-supported statewide, although support varied depending upon the particular management technique. Increased protection for fish habitat has the largest support, with 68 percent supporting and only 4 percent opposing. More management for game populations and more public land purchases have lower levels of support with 48 percent and 47 percent supporting, respectively. But, the opposition to these management techniques is still low (8% opposed game management and 14% opposed more public land). More management for non-game wildlife came in at the middle, with 56 percent supporting and 7 percent opposing this solution. The only difference between statewide lake users, regional users, and riparian property owners is in support and opposition to more public land.

In comparison to the users statewide, the northern regions have relatively low support (around one-third versus one-half supporting) and higher opposition (around one-fourth versus one-eighth opposing) to more public land purchases to protect shoreland areas (Table 13). Other regions of

Table 13
More Public Land Purchases to Protect Shoreland Areas
(percent who 'support,' 'oppose,' are 'neutral,' or 'don't know')

	All Lake Users	Riparian Property Owners	Region of Lake Use				
Response	(percent)	(percent)	Northwest (percent)	Northeast (percent)	Central (percent)	South (percent)	Metro (percent)
Support	47	30	33	34	51	51	53
Neutral	30	44	36	33	27	29	32
Oppose	14	21	21	28	15	6	8
Don't Know	9	5	10	5	7	14	7
Total Percent	100	100	100	100	100	100	100

the state do not differ significantly when compared to the statewide results.

Riparian ownership responses exhibit a similar pattern to that of the statewide data except for support of more public land purchases to protect shoreland areas. Only 30 percent supported more public land. More riparian owners are neutral (44%) about more public land than lake users as a whole with similar low percentages of riparian property owners opposing more public land.

Regulatory Solutions

Regulatory solutions, as noted above, do not appear to receive greater or lesser support than the other categories of possible solutions to lake problems. This finding is consistent with another finding in the survey concerning the public's assessment of the current degree of regulation of lakes and lakeshore in Minnesota.

Lake users, in general, do not feel that the current regulatory environment for lakes and lakeshore is overly restrictive (Table 14). Few (10%) feel that laws and regulations have 'gone too far.' Most either feel the current situation has 'struck about the right balance' (41%) or that laws and regulations have 'not gone far enough' (30%). These views of the current regulatory environment are shared widely by riparian property owners and across the state.

Table 14

Overall, in thinking about Minnesota lakes at the present time, do you think laws and regulations related to the lake and lakeshore environment have 'gone too far,' 'struck about the right balance,' or 'not gone far enough?'
(percent giving response)

	All Lake Users	Riparian Property Owners	Region of Lake Use				
Response	(percent)	(percent)	Northwest (percent)	Northeast (percent)	Central (percent)	South (percent)	Metro (percent)
Gone too far	10	12	10	13	11	2	11
Struck about the right balance	41	46	45	42	40	42	35
Not gone far enough	30	29	24	34	29	35	29
Don't know	20	14	21	11	20	21	25
Total percent	100	100	100	100	100	100	100

Statewide, support for specific regulatory solutions range from 72 percent for stricter controls for exotic species to 35 percent for increasing the minimum lot size. Ranked in order from most support to least is: stricter controls for exotic species (72%), stricter septic system regulations to

improve water quality (68%), motorboat size and speed limits (66%), more enforcement of existing shoreland protection laws (60%), stricter zoning regulations for shoreline development to maintain natural shoreline character (58%), stricter regulations to protect shoreland trees and shrubs (57%), and increasing minimum lot size requirements (35%). In general, statewide opposition is very low for the regulatory solutions presented in the survey, ranging from 2 to 11 percent for all the solutions, except for increasing the minimum lot size. More people oppose (17%) or are neutral (36%) for increasing minimum lot size requirements when compared with other regulatory or enforcement solutions.

Responses to specific regulatory solutions do not vary greatly by region. There are some evident differences, however, in the northeast region on three of the seven items. Lake users of the northeast region are more opposed (18%) to more enforcement of existing shoreland protection laws than users statewide (7%). Again, more users of the northeast are opposed (21%) to stricter regulations to protect shoreland trees and shrubs than users statewide (10%). On the flip side, more northeast users (48%) support increasing the minimum lot size than do users of the state as a whole (35%).

Riparian owners generally agree with other lake users in the state on the specific regulations. Some notable differences, however, exist on three of the seven items. More lake users statewide (60%) support more enforcement of existing shoreland protection laws than do riparian owners (50%). Again, more people statewide (57%) support stricter regulations to protect shoreland trees and shrubs than do riparian property owners (46%). Conversely, more riparian property owners (47%) support increasing the minimum lot size than do people statewide (35%).

Incentive Solutions

Statewide, incentive programs have a moderate level of support with little opposition. A majority (53% to 61%) of all lake users support: awards programs for shoreland property owners who minimize their impacts, development of financial incentives for environmentally-sound shoreland management, and more erosion control assistance for property owners. Only 4 to 9 percent oppose such programs. Support or opposition to incentive programs does not vary significantly when comparing the regional lake users to users statewide.

Riparian property owners, when compared with the users statewide, exhibit less support (43% compared with 55%) but are more neutral (40% compared with 29%) for awards programs for shoreland property owners who minimize their impacts. For the other incentives there is no difference between the users statewide and riparian property owners.

APPENDIX A

SURVEY METHODOLOGY AND TABLES OF SURVEY RESPONSES

METHODOLOGY

For the purpose of this study, the state was divided into two geographic regions: northeastern Minnesota (Carlton, Itasca, Koochiching, St. Louis, Lake, and Cook counties) and the rest of the state. The survey was mailed to 1,000 randomly selected Minnesota households in each of the regions. Names and addresses were purchased from Survey Sampling, Inc., of Fairfield, Connecticut. The initial survey mailing was made in April 1998. Up to three follow-up survey mailings were made to non-respondents at three-week intervals. (See page 39 for a copy of the survey and page 38 for a copy of the cover letter used in the mailings.)

Of the 2,000 surveys originally mailed, 333 (16.7 percent) were returned as undeliverable giving an adjusted sample size of 1,667. The number of usable returns was 814 or 48.8 percent of the adjusted sample. This is a typical response rate for a general population survey of this type. The return rate was the same for both geographic regions.

Since the sampling rates were not the same in the two regions, survey results were weighted prior to analysis by the number of households in each region using the 1990 U.S. Census. Weighting ensures that responses from a region are appropriately represented when combined with responses from a different region.

The response rate of 48.8 percent was not considered sufficiently high (above 70 percent) to allay concerns about potential non-response bias, which is the possibility that the 51.2 percent who did not respond to the survey think differently than those who did respond. To examine this possibility a bias-check telephone survey of 100 non-respondents from each of the two region was conducted (see below).

Survey Number_____

Lakes Survey Bias Check

Hello, I'm _____ (*name of caller*) calling on behalf of the University of Minnesota Sea Grant Program and the Minnesota Department of Natural Resources. You were part of a group of citizens who received a survey about lakes in Minnesota, we didn't receive a response from you and we would like to ask you just a few short questions. This will will take less than one minute of your time.

1. About how many days per year do you use Minnesota lakes? Use is defined as: Any on-water activity like fishing, boating, or any other activity that is enhanced by the presence of lakes, such as camping, hiking, sightseeing, or living in a shoreland home.

_____ Days *(if zero go question 3)*

2. In thinking about the area or region where you use lakes the most...

a. In general, over the last ten years, lake water quality in the region has...
Improved ____ Remained About the Same _____ Worsened _____

b. In general, again, over the last ten years, scenic beauty of lakes in the region has.....
Improved _____ Remained About the Same _____ Worsened _____

3a. Do you own or lease shoreland property along a lake in Minnesota? _____Yes _____No
(if Yes go to question 3b)

3b. Is the property your permanent residence? _____Yes _____No

Thank you for taking the time to complete the survey.

A major source of bias was found in the mail survey responses. It was due (as usual) to interest in the survey topic. Lake users were more likely to return the survey than non-lake users. Fifteen percent of the mail survey respondents were non lake users while 27 percent of the bias survey respondents were non-lake users (see table below). To remove this source of bias, survey results were differentially weighted prior to analysis by the amount of lake use. Lake users were placed into four use classes for weighting purposes: none, low (1-10 days per year), medium (11-30 days per year) and high (31-365 days per year). This weighting ensures that responses from non-lake users and light lake users are appropriately represented when combined with other users. The effect of weighting is shown in this table:

Combining Mail and Phone Surveys to Remove Bias
(percent of 'lake use' responses each survey represents)

Lake use	Mail Survey[1]	Phone Survey[1]	Mail & Phone Combined[2]
None	14.7%	27.4%	21.3%
Low (1-10 days)	13.6%	38.7%	26.5%
Medium (11-30 days)	40.4%	20.2%	30.0%
High (31-365 days)	31.2%	13.6%	21.2%
Median days of lake use	24	5	10
Percent of population represented by survey	48.8% (= return rate)	51.2%	100.0%

[1] Weighted by number of households in the two survey regions
[2] Weighted by number of households in survey regions and by type of survey

READING THE TABLES

Tables of survey results are broken down by:

- respondent origin: NE (Northeast Minnesota counties—Carlton, Itasca, Koochiching, St. Louis, Lake, and Cook) and Not NE (the rest of the state);
- lake region of the state used most (see map); and
- whether the respondent was a riparian property owner.

The best way to understand how to read the tables is to examine a table. All of the tables are in a standard format. The second question in the survey asked: "Please indicate how much you agree or disagree with the following statement: Minnesota lakes are important to me, whether or not I use them." Responses to this question are tabulated below:

COLUMNS:

ROWS:		A	B	C	D	E	F	G	H	I	J
	Figures are column percents	Total	Respondent origin		Lake region used most					Riparian owner	
	Response		NE	Not NE	Northwest	Northeast	Central	South	Metro	Yes	No
1	Strongly agree	58.7%	62.2%	58.4%	69.6%	69.8%	67.0%	64.4%	59.5%	71.7%	55.7%
2	Agree	35.7%	31.0%	36.1%	30.4%	27.6%	27.5%	33.3%	31.8%	24.4%	38.2%
3	Neutral	3.0%	4.1%	3.0%	0.0%	1.1%	4.6%	1.1%	5.1%	2.6%	3.2%
4	Disagree	1.0%	0.9%	1.1%	0.0%	0.5%	0.8%	0.0%	1.0%	1.0%	1.1%
5	Strongly disagree	0.9%	1.6%	0.8%	0.0%	1.0%	0.0%	0.0%	2.6%	0.2%	1.0%
6	Don't know	0.7%	0.2%	0.7%	0.0%	0.0%	0.0%	1.2%	0.0%	0.0%	0.8%
7	Number of surveys	807	397	410	70	340	109	66	80	200	596

Column A in the table gives the response for all respondents; columns B and C are for residents living in the northeast and those not living in the northeast, respectively; columns D through H are for respondents who use lakes in the region specified as determined by responses to question 3A; and columns I and J are for statewide responses for riparian property owners and all others, respectively, as determined by responses to question 14A.

Rows 1 through 6 give the response categories for the question. Row 7 is the number of surveys returned with valid responses to this question.

For further clarification on reading the table, look at column E (Northeast lake region used most). Over two-thirds (69.8%) of the respondents who use northeast lakes strongly agree with the statement; 1.0% strongly disagree with the statement. There were 340 surveys returned with valid responses to this question from respondents who use lakes most in the northeast region.

Care must be used when comparing results across groups. Some of these breakdowns have only a few respondents ('Number of surveys'). When the number of respondents is small, the portion of a group in each response category is less well known (less precise).

Based on responses from a sample, one can calculate a range of values that, with a designated likelihood, includes the portion of a group in a response category. A 95 percent confidence interval indicates that the true portion of a group's response has a high probability (95%) of being within the confidence limits surrounding the reported percent in the response category. The 95 percent confidence interval becomes narrower with increasing sample size as shown below:

95% Confidence Interval by Size of Sample

Sample size (Number of surveys)	95% Confidence Interval[1]
10	+/- 31%
25	+/- 20%
50	+/- 14%
100	+/- 10%
200	+/- 7%
400	+/- 5%

[1] Size of 95% confidence interval shown is a maximum for each sample size, and assumes a 50/50 split in responses.

For example, assume 50 percent of the respondents in a given category answered 'Yes' to a question and 50 percent answered 'No.' If there were 10 respondents in the category, the true portion of the group saying 'Yes' would range between 19 percent and 81 percent at the 95 percent confidence level (50% +/- 31%). This would not be very useful information. However, if there were 400 respondents in the category, then the true portion of the group saying 'Yes' would range from 45 percent to 55 percent (50% +/- 5%). The larger sample size would provide more useful information on the group.

It should be noted that non-lake users (as defined in Question 2) were asked to skip Questions 2 through 11. This results in the total number of surveys for the breakdown 'Lake region used most' not agreeing with the number of surveys listed under 'Total' for Question 1 and Questions 12 through 16, since non-lake users are not represented under the breakdown 'Lake region used most' but they are represented under 'Total.' The absence of non-lake users also explains the smaller number of surveys listed under 'Total' for Questions 3 through 11.

ORGANIZATION OF REMAINDER OF APPENDIX

What follows is a copy of the survey with page numbers for locating the table for each question, and a copy of the cover letter used for the mail survey.

MAIL SURVEY COVER LETTER

Below is the cover letter used in the first mailing. It appeared on University of Minnesota Sea Grant letterhead. The next three cover letters were basically the same. The last two cover letters appeared on Minnesota Department of Natural Resources letterhead and were signed by Commissioner Rod Sando.

March 31, 1998

Dear Minnesotan:

The enclosed survey is your chance to provide input on the future of Minnesota's lakes. Please take 15 minutes to fill it out and return it to us. You are one of only a small number of randomly selected Minnesotans receiving this questionnaire, so your views are very important to us.

The University of Minnesota Sea Grant Program and the Department of Natural Resources designed the survey to find out how you use lakes and what concerns you about the future of lakes in our state. When making a decision about lake management, we want to be sure we understand what you think.

For more information about the survey and results, contact project coordinator, Keith Anderson, at 1-800-455-4526. Your answers are strictly confidential and will never be associated with your name.

Thanks for your help!

Sincerely,

Cynthia A. Hagley
Extension Educator-Environmental Quality

Enc. (1)

Guide to Tables

Page

MINNESOTA LAKES SURVEY

Lake Importance and Use

PLEASE DO NOT CONSIDER LAKE SUPERIOR IN THIS SURVEY

1 Please indicate how much you agree or disagree with the following statements. (Mark one circle for each statement.) — 44

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Don't Know
A Minnesota lakes have no particular importance to me.	○	○	○	○	○	○
B Minnesota lakes are important to me, whether or not I use them.	○	○	○	○	○	○
C Minnesota lakes are important to me because of their fish, wildlife, and other natural features.	○	○	○	○	○	○
D Minnesota lakes are important to me because they offer many types of recreation.	○	○	○	○	○	○
E Minnesota lakes are inviting to me.	○	○	○	○	○	○
F Minnesota lakes are important to me because of their beauty and atmosphere.	○	○	○	○	○	○
G Minnesota lakes must be taken care of, so that we can pass them along to future generations for their enjoyment.	○	○	○	○	○	○
H Minnesota lakes are important to me because of their economic value to surrounding communities.	○	○	○	○	○	○

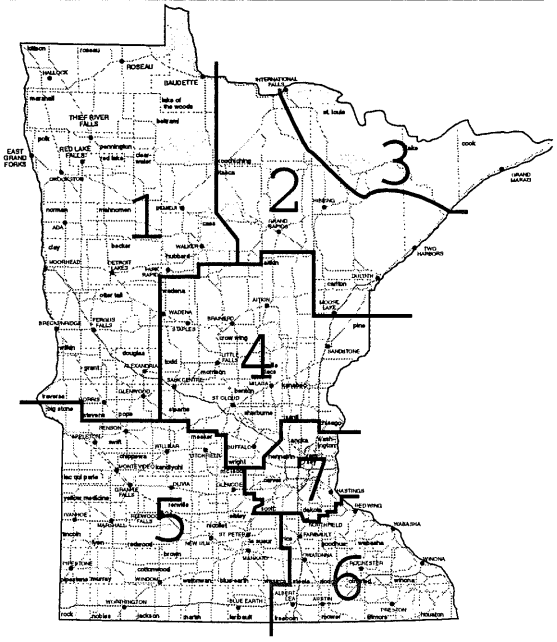
2 About how many days per year do you use Minnesota lakes? — 46

Use is defined as any on-water activity like fishing, boating or any other activity that is enhanced by the presence of lakes, such as camping, hiking, sightseeing, or living in a shoreland home.

I use Minnesota lakes ☐ days per year. If zero, go to question 12.

3 A Using the region numbers on the map, in which region do you use lakes the most? ☐

In which region do you use lakes next most? ☐ — 47



B Within the **region** you use the most, which **lake** do you use the most? (please print)

Name of most used lake

Which town is closest to this lake?

Guide to Tables

Page

General Water Quality and Scenic Beauty of Lakes in the Region You Use Most

4 (Mark one circle for each statement.)

Looking Back	Improved	Remained about the Same	Worsened	Don't Know
A In general, over the **last ten years**, lake water quality in the region I use most has...	○	○	○	○
B In general, over the **last ten years**, scenic beauty of lakes in the region I use most has...	○	○	○	○
Looking Forward	Improve	Remain about the Same	Worsen	Don't Know
C In general, over the **next ten years**, I expect lake water quality in the region I use most to...	○	○	○	○
D In general, over the **next ten years**, I expect lake scenic beauty in the region I use most to...	○	○	○	○

48

Use, Current Status, & Trends of the Lake You Use Most

5 What are your reasons for choosing to visit the lake you use most? (Mark all that apply in both columns.)

50

- ○ A Close to home
- ○ B Good fishing
- ○ C Good boat access
- ○ D Few motorboat regulations or restrictions
- ○ E Motor boat restrictions
- ○ F Affordable overnight accommodations and services
- ○ G Inexpensive place to recreate
- ○ H Own/lease shoreland property
- ○ I Friends or relatives live or have a cabin on the lake
- ○ J Scenic
- ○ K Quiet
- ○ L Shopping and souvenirs nearby
- ○ M Good camping
- ○ N Good resorts
- ○ O Lots of tourist services nearby (restaurants, bars, recreation equipment rentals, etc.)
- ○ P Good trails
- ○ Q Pristine setting
- ○ R Wildlife in area
- ○ S Good water quality
- ○ T Good road access
- ○ U Good waterfowl hunting available
- ○ V Large lake
- ○ W Small lake
- ○ X Few people
- ○ Y Good swimming
- ○ Z Recreational opportunities nearby
- ○ AA Golf courses nearby
- ○ BB Cultural, historical and educational opportunities nearby
- ○ CC Have gone for years
- ○ DD Good beaches
- ○ EE Other (please specify): _____

6 A Which of the the activities do you participate in on or around the lake you use most? (Mark all that apply in both columns.)

51

- ○ A Swimming/wading
- ○ B SCUBA diving
- ○ C Fishing from shore
- ○ D Fishing from motorized boats
- ○ E Fishing from non-motorized boats
- ○ F Ice fishing
- ○ G Canoeing/kayaking/paddleboating
- ○ H Windsurfing
- ○ I Sailing
- ○ J Pleasure boating (motorized)
- ○ K Operating personal watercraft (Jet Skis)
- ○ L Water-skiing, kneeboarding, etc.
- ○ M Skipping rocks
- ○ N Collecting rocks or shells
- ○ O Snowmobiling on lakes/rivers
- ○ P Attending waterfront events
- ○ Q Enjoying lake or river scenery
- ○ R Bird watching or studying nature
- ○ S Picnicking/camping on lakeshore
- ○ T Using trails along shore for hiking, skiing or mountain biking
- ○ U Using trails along shore for riding ATV's snowmobiling
- ○ V Spending time at lakeshore home or cabin
- ○ W Getting away from it all
- ○ X Socializing with friends and family
- ○ Y Enjoying bonfires along shore
- ○ Z Painting or photography
- ○ AA Other (please specify): _____

B	Which of the activities listed in 6A do you participate in the most? (List the letter corresponding to activity.)	**ACTIVITY** ☐
C	Which activity do you participate in the second most?	**ACTIVITY** ☐
D	Which of the activities listed in 6A do you enjoy the most? (The answer may be the same as 6B or 6C.)	**ACTIVITY** ☐
E	Which activity do you enjoy the second most? (The answer may be the same as 6B or 6C.)	**ACTIVITY** ☐

Guide to Tables

Page

7 A For each of the items below, how do you rate the current condition of the lake you use most? (Mark one circle for each item.) — 56

	Excellent	Good	Fair	Poor	Don't Know
A Water quality	○	○	○	○	○
B Fishing	○	○	○	○	○
C Condition of the land area close to the shoreline (0-100 ft. from shore)	○	○	○	○	○
D Condition of the land area away from the shoreline (100-1000 ft. from shore)	○	○	○	○	○
E Scenic quality of the lake and shoreland areas	○	○	○	○	○
F Overall condition of the lake and shoreland areas	○	○	○	○	○

B For each of the items below, please tell us if you think there is too much, too little or about the right amount in the lake you use the most. (Mark one circle for each item.) — 58

	Too Much	About Right	Too Little	Don't Know
A Rooted vegetation near shore	○	○	○	○
B Floating algae and/or scum on the surface	○	○	○	○
C Fish habitat	○	○	○	○
D Keeper-size pan and game fish	○	○	○	○
E Diversity of birds and wildlife	○	○	○	○
F Loons	○	○	○	○
G Shoreland housing	○	○	○	○
H Motorized watercraft	○	○	○	○
I Natural shoreline vegetation (trees and shrubs)	○	○	○	○

C In your opinion, how much of a problem have the following items been in the lake you use most? (Mark one circle for each item.) — 61

	Major Problem	Moderate Problem	Minimal Problem	Not a Problem	Don't Know
A Level of fish contamination	○	○	○	○	○
B Presence of exotic species (such as Eurasian water milfoil, purple loosestrife, etc.)	○	○	○	○	○

8 A How many years have you used the lake you use most? ☐ Years — 61

B Over these years, have the following conditions improved, worsened or remained about the same on the lake you use most? (Mark one circle for each item.) — 62

	Improved	Remained about the Same	Worsened	Don't Know
A Water quality	○	○	○	○
B Fishing	○	○	○	○
C Condition of the land area close to the shoreline (0-100 ft. from shore)	○	○	○	○
D Condition of the land area away from the shoreline (100-1000 ft. from shore)	○	○	○	○
E Scenic quality of the lake and shoreland areas	○	○	○	○
F Overall condition of the lake and shoreland areas	○	○	○	○

C Over these same years, have the following items increased, decreased, or remained about the same on the lake you use most? — 64

	Increased	Remained about the Same	Decreased	Don't Know
A Rooted vegetation near shore	○	○	○	○
B Floating algae and/or scum on the surface	○	○	○	○
C Fish habitat	○	○	○	○
D Keeper-size pan and game fish	○	○	○	○
E Diversity of birds and wildlife	○	○	○	○
F Loons	○	○	○	○
G Shoreland housing	○	○	○	○
H Motorized watercraft	○	○	○	○
I Natural shoreline vegetation (trees and shrubs)	○	○	○	○

Guide to Tables

Page

67

8 D Over these same years, do you feel that the following problems have increased, decreased or remained about the same on the lake you use most? (Mark one circle for each item.)

	Increased	Remained about the Same	Decreased	Don't Know
A Level of fish contamination	○	○	○	○
B Presence of exotic species (such as Eurasian water milfoil, purple loosestrife, etc.)	○	○	○	○

Impacts on Water Quality and Scenic Quality

68

9 A In your opinion, how much of an impact have each of the following had on the **water quality** of the lake you use most? (Mark one circle for each item.)

	Great Impact	Moderate Impact	Slight Impact	No Impact	Does not Apply	Don't Know
A Septic systems around the lake	○	○	○	○	○	○
B Aquatic plant (weed) removal	○	○	○	○	○	○
C Shoreline vegetation removal	○	○	○	○	○	○
D Lawn fertilizers and chemicals	○	○	○	○	○	○
E Urban, road, or parking lot runoff	○	○	○	○	○	○
F Soil erosion from home sites	○	○	○	○	○	○
G Soil erosion from farms and fields	○	○	○	○	○	○
H Livestock manure	○	○	○	○	○	○
I Timber harvesting	○	○	○	○	○	○
J Exhaust and fuel leakage from motorized watercraft	○	○	○	○	○	○
K Municipal waste water discharges	○	○	○	○	○	○
L Commercial and industrial waste water discharges	○	○	○	○	○	○
M Damage to aquatic plants (weeds) and lake bottom by watercraft	○	○	○	○	○	○
N Exotic species invasions (such as Eurasian water milfoil)	○	○	○	○	○	○
O Regulated water levels (i.e., reservoirs)	○	○	○	○	○	○
P Agricultural fertilizers and chemicals	○	○	○	○	○	○

73

B In your opinion, how much of an impact have each of the following had on the **scenic quality** of the lake you use most? (Mark one circle for each item.)

	Great Impact	Moderate Impact	Slight Impact	No Impact	Does not Apply	Don't Know
A Timber harvesting	○	○	○	○	○	○
B Cabin or home development	○	○	○	○	○	○
C Installation of large shoreline structures (such as docks & boat lifts)	○	○	○	○	○	○
D Resort and marina development	○	○	○	○	○	○
E Industrial and commercial development	○	○	○	○	○	○
F Tree and shrub removal in shoreland areas	○	○	○	○	○	○
G Aquatic plant (weed) removal	○	○	○	○	○	○
H Building roads close to shore	○	○	○	○	○	○
I Building utility lines close to shore	○	○	○	○	○	○
J Re-shaping of shoreline	○	○	○	○	○	○
K Building retaining walls	○	○	○	○	○	○

Guide to Tables

Page

Possible Solutions

10 Do you support or oppose the following actions to address any problems on the lake you use the most? (Mark one circle for each item.) — 77

	Support	Neutral	Oppose	Don't Know
A Stricter septic system regulations to improve water quality	○	○	○	○
B Allowing individuals more flexibility to make decisions about their own land	○	○	○	○
C More shoreline property owner education regarding impacts on water quality	○	○	○	○
D Stricter zoning regulations for shoreline development to maintain natural shoreline character	○	○	○	○
E More enforcement of existing shoreland protection laws	○	○	○	○
F Awards program for shoreland property owners who minimize their impacts	○	○	○	○
G Stricter regulations to protect shoreland trees and shrubs	○	○	○	○
H Allowing more aquatic plant (weed) removal	○	○	○	○
I Development of more voluntary programs for water quality protection	○	○	○	○
J More farmer education about the impacts of farming practices on water quality	○	○	○	○
K Increased protection for fish habitat	○	○	○	○
L More management for game populations	○	○	○	○
M More management for non-game wildlife populations (song birds, loons)	○	○	○	○
N More erosion control assistance for property owners	○	○	○	○
O Motorboat size and speed limits to protect shoreland areas	○	○	○	○
P Stricter controls for exotic species (such as Eurasian water milfoil)	○	○	○	○
Q More logger/forester education about the impacts of logging on lake quality	○	○	○	○
R More public land purchases to protect shoreland areas	○	○	○	○
S Development of financial incentives for environmentally sound shoreland management	○	○	○	○
T Increase minimum lot size requirements	○	○	○	○
U Other (please specify): _____	○	○	○	○

11 Overall, in thinking about Minnesota lakes at the present time, do you think laws and regulations related to the lake and lakeshore environment have: — 84

○ gone too far ○ struck about the right balance ○ not gone far enough ○ don't know

Demographics

12 How many years have you lived in Minnesota? ☐ Years — 84

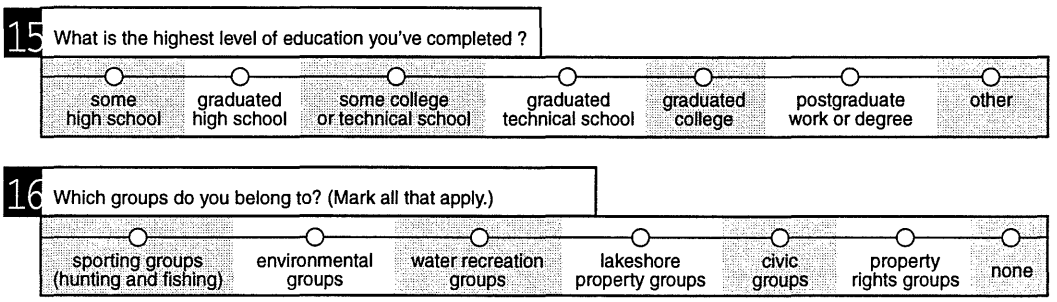
13 Are you male or female? ☐ Male ☐ Female — 85

14 A Do you own or lease shoreland property along a lake in Minnesota? ☐ Yes ☐ No, go to question 15. — 85

- **1** If 14 A is YES: What is the name of the lake and county? _____
- **2** What town is closest to this lake? _____
- **3** How many years has it been in your family? ☐ Years
- **4** Is this property your permanent residence? ☐ Yes ☐ No
  - **a** If not your permanent residence, please estimate the number of days you visit your seasonal property.

From May-August ☐ number of days
From September-November ☐ number of days
From December-April ☐ number of days

Guide to Tables



OTHER COMMENTS:

Please indicate how much you agree or disagree with the following statements.
Minnesota lakes have no particular importance to me.

Figures are column percents Response	Total	Respondent origin		Lake region used most					Riparian owner	
		NE	Not NE	Northwest	Northeast	Central	South	Metro	Yes	No
Strongly agree	2.2%	1.8%	2.2%	3.8%	2.5%	1.8%	1.1%	3.8%	3.8%	1.9%
Agree	3.7%	2.8%	3.8%	2.7%	2.1%	.0%	4.0%	4.5%	1.1%	4.3%
Neutral	6.9%	3.2%	7.2%	8.8%	.9%	5.5%	1.1%	7.7%	2.6%	7.7%
Disagree	31.5%	25.7%	32.0%	20.0%	29.7%	32.0%	32.2%	19.0%	21.1%	33.3%
Strongly disagree	54.1%	65.5%	53.2%	61.0%	64.5%	60.8%	60.4%	64.9%	69.5%	51.4%
Don't know	1.5%	1.1%	1.5%	3.7%	.3%	.0%	1.2%	.0%	1.9%	1.4%
Number of surveys	800	392	408	70	337	109	65	80	199	590

Please indicate how much you agree or disagree with the following statements.
Minnesota lakes are important to me, whether or not I use them.

Figures are column percents Response	Total	Respondent origin		Lake region used most					Riparian owner	
		NE	Not NE	Northwest	Northeast	Central	South	Metro	Yes	No
Strongly agree	58.7%	62.2%	58.4%	69.6%	69.8%	67.0%	64.4%	59.5%	71.7%	55.7%
Agree	35.7%	31.0%	36.1%	30.4%	27.6%	27.5%	33.3%	31.8%	24.4%	38.2%
Neutral	3.0%	4.1%	3.0%	.0%	1.1%	4.6%	1.1%	5.1%	2.6%	3.2%
Disagree	1.0%	.9%	1.1%	.0%	.5%	.8%	.0%	1.0%	1.0%	1.1%
Strongly disagree	.9%	1.6%	.8%	.0%	1.0%	.0%	.0%	2.6%	.2%	1.0%
Don't know	.7%	.2%	.7%	.0%	.0%	.0%	1.2%	.0%	.0%	.8%
Number of surveys	807	397	410	70	340	109	66	80	200	596

Please indicate how much you agree or disagree with the following statements.
Minnesota lakes are important to me because of their fish, wildlife and other natural features.

Figures are column percents Response	Total	Respondent origin		Lake region used most					Riparian owner	
		NE	Not NE	Northwest	Northeast	Central	South	Metro	Yes	No
Strongly agree	51.5%	60.4%	50.8%	57.7%	64.3%	58.4%	61.5%	51.8%	61.3%	49.1%
Agree	40.8%	33.6%	41.3%	40.9%	33.4%	37.6%	35.1%	34.0%	37.4%	41.8%
Neutral	5.5%	4.1%	5.6%	1.3%	1.4%	.8%	2.2%	12.2%	1.0%	6.5%
Disagree	1.1%	.7%	1.2%	.0%	.5%	3.1%	.0%	1.0%	.1%	1.4%
Strongly disagree	.4%	1.0%	.4%	.0%	.4%	.0%	.0%	1.0%	.2%	.4%
Don't know	.7%	.2%	.7%	.0%	.0%	.0%	1.2%	.0%	.0%	.8%
Number of surveys	806	395	411	70	339	110	66	80	200	595

Please indicate how much you agree or disagree with the following statements.
Minnesota lakes are important to me because they offer many types of recreation.

Figures are column percents Response	Total	Respondent origin		Lake region used most					Riparian owner	
		NE	Not NE	Northwest	Northeast	Central	South	Metro	Yes	No
Strongly agree	37.0%	44.6%	36.4%	45.5%	44.6%	38.4%	44.2%	42.2%	41.8%	36.1%
Agree	43.1%	40.7%	43.3%	38.9%	45.4%	46.5%	48.4%	36.0%	44.9%	42.6%
Neutral	15.5%	11.2%	15.9%	12.9%	6.8%	14.3%	5.1%	18.8%	12.1%	16.4%
Disagree	2.3%	1.6%	2.3%	.0%	2.3%	.8%	1.1%	2.0%	.1%	2.5%
Strongly disagree	1.1%	1.5%	1.1%	2.7%	.8%	.0%	.0%	.9%	1.1%	1.1%
Don't know	1.0%	.4%	1.1%	.0%	.1%	.0%	1.2%	.0%	.0%	1.2%
Number of surveys	801	395	406	70	338	109	66	79	199	591

Please indicate how much you agree or disagree with the following statements.
Minnesota lakes are inviting to me.

Figures are column percents Response	Total	Respondent origin		Lake region used most					Riparian owner	
		NE	Not NE	Northwest	Northeast	Central	South	Metro	Yes	No
Strongly agree	39.9%	46.9%	39.3%	54.6%	50.9%	41.9%	46.0%	42.6%	47.8%	37.9%
Agree	39.2%	41.1%	39.1%	33.9%	43.5%	44.7%	39.0%	41.2%	45.4%	38.2%
Neutral	16.9%	8.8%	17.5%	11.5%	4.9%	11.7%	12.7%	14.2%	6.7%	19.3%
Disagree	2.3%	1.7%	2.3%	.0%	.3%	.9%	1.1%	1.0%	.0%	2.7%
Strongly disagree	.7%	.8%	.7%	.0%	.4%	.8%	.0%	1.0%	.2%	.6%
Don't know	1.0%	.7%	1.1%	.0%	.0%	.0%	1.2%	.0%	.0%	1.3%
Number of surveys	802	394	408	70	339	110	66	80	200	591

Please indicate how much you agree or disagree with the following statements.
Minnesota lakes are important to me because of their beauty and atmosphere.

Figures are column percents Response	Total	Respondent origin		Lake region used most					Riparian owner	
		NE	Not NE	Northwest	Northeast	Central	South	Metro	Yes	No
Strongly agree	47.6%	54.4%	47.1%	54.9%	60.6%	50.2%	49.3%	44.4%	61.2%	44.7%
Agree	45.1%	39.4%	45.6%	43.8%	36.9%	45.7%	46.2%	41.4%	38.6%	46.6%
Neutral	4.9%	4.8%	4.9%	1.3%	2.0%	1.8%	3.3%	11.3%	.0%	6.0%
Disagree	1.6%	.4%	1.7%	.0%	.1%	2.3%	.0%	2.9%	.0%	1.8%
Strongly disagree	.1%	.8%	.0%	.0%	.4%	.0%	.0%	.0%	.2%	.0%
Don't know	.7%	.2%	.7%	.0%	.0%	.0%	1.2%	.0%	.0%	.8%
Number of surveys	804	396	408	70	340	110	64	80	200	593

Please indicate how much you agree or disagree with the following statements.
Minnesota lakes must be taken care of, so that we can pass them along to future generations for their enjoyment.

Figures are column percents Response	Total	Respondent origin		Lake region used most					Riparian owner	
		NE	Not NE	Northwest	Northeast	Central	South	Metro	Yes	No
Strongly agree	66.5%	68.3%	66.3%	65.5%	67.5%	74.9%	72.8%	63.3%	74.0%	64.7%
Agree	29.3%	27.8%	29.4%	33.1%	31.3%	22.8%	24.9%	29.6%	25.8%	30.2%
Neutral	1.9%	2.3%	1.9%	.0%	.8%	.1%	1.1%	3.5%	.0%	2.3%
Disagree	.9%	.0%	1.0%	.0%	.0%	2.3%	.0%	1.0%	.0%	1.1%
Strongly disagree	.2%	1.0%	.2%	1.3%	.4%	.0%	.0%	.0%	.2%	.2%
Don't know	1.1%	.7%	1.2%	.0%	.0%	.0%	1.2%	2.6%	.0%	1.4%
Number of surveys	806	396	410	70	339	110	65	80	200	595

Please indicate how much you agree or disagree with the following statements.
Minnesota lakes are important to me because of their economic value to surrounding communities.

Figures are column percents Response	Total	Respondent origin		Lake region used most					Riparian owner	
		NE	Not NE	Northwest	Northeast	Central	South	Metro	Yes	No
Strongly agree	27.5%	32.6%	27.1%	32.6%	31.1%	32.8%	37.0%	22.4%	31.6%	26.3%
Agree	42.2%	42.4%	42.2%	53.4%	35.4%	38.8%	37.3%	33.5%	45.8%	41.9%
Neutral	22.2%	17.7%	22.5%	8.4%	25.4%	20.8%	23.3%	29.5%	16.3%	23.3%
Disagree	4.7%	4.6%	4.7%	1.5%	5.6%	5.0%	1.1%	10.1%	3.2%	4.8%
Strongly disagree	1.5%	2.1%	1.4%	4.1%	.8%	2.6%	.0%	.9%	3.1%	1.1%
Don't know	2.0%	.6%	2.1%	.0%	1.7%	.0%	1.2%	3.6%	.0%	2.5%
Number of surveys	795	392	403	70	338	109	64	79	199	585

About how many days per year do you use Minnesota lakes?
Use is defined as any on-water activity like fishing, boating or any other activity that is enhanced by the presence of lakes, such as camping, hiking, sightseeing, or living in a shoreland home.
I use Minnesota lakes _____ days per year.

Figures are column percents Days	Total	Respondent origin		Lake region used most					Riparian owner	
		NE	Not NE	Northwest	Northeast	Central	South	Metro	Yes	No
Mean	41.9	55.9	40.8	56.7	56.0	61.2	42.3	53.9	131.7	22.5
Median	10.0	20.0	10.0	25.0	21.0	25.0	10.0	20.0	60.0	10.0
Minimum	.0	.0	.0	3.0	2.0	2.0	2.0	2.0	.0	.0
Maximum	365.0	365.0	365.0	365.0	365.0	365.0	365.0	365.0	365.0	365.0
Number of surveys	726	360	366	64	320	108	59	77	192	527

About how many days per year do you use Minnesota lakes?
Use is defined as any on-water activity like fishing, boating or any other activity that is enhanced by the presence of lakes, such as camping, hiking, sightseeing, or living in a shoreland home.
I use Minnesota lakes _____ days per year.

Figures are column percents Days	Total	Respondent origin		Lake region used most					Riparian owner	
		NE	Not NE	Northwest	Northeast	Central	South	Metro	Yes	No
0	23.2%	15.1%	23.9%	.0%	.0%	.0%	.0%	.0%	2.4%	27.8%
1 - 10	29.0%	25.7%	29.2%	33.2%	31.1%	29.9%	52.7%	39.7%	14.6%	32.2%
11 - 20	12.3%	10.6%	12.5%	14.0%	17.5%	16.9%	14.2%	17.1%	7.8%	13.4%
21 - 30	15.1%	17.8%	14.8%	26.0%	24.2%	20.2%	15.1%	17.0%	16.5%	14.6%
31+	20.4%	30.8%	19.6%	26.8%	27.2%	33.1%	18.1%	26.1%	58.7%	12.0%
Number of surveys	726	360	366	64	320	108	59	77	192	527

Using the region numbers on the map, in which region do you use lakes the most?

Figures are column percents Region	Total	Respondent origin		Lake region used most					Riparian owner	
		NE	Not NE	Northwest	Northeast	Central	South	Metro	Yes	No
Northwest	16.2%	4.0%	17.2%	100.0%	.0%	.0%	.0%	.0%	25.6%	13.7%
North central	9.1%	73.9%	3.5%	.0%	65.9%	.0%	.0%	.0%	10.3%	8.5%
Northeast	4.7%	17.9%	3.6%	.0%	34.1%	.0%	.0%	.0%	6.2%	4.3%
Central	26.2%	3.6%	28.2%	.0%	.0%	100.0%	.0%	.0%	30.8%	24.7%
Southwest	13.3%	.5%	14.4%	.0%	.0%	.0%	64.6%	.0%	15.2%	13.0%
Southeast	7.3%	.0%	7.9%	.0%	.0%	.0%	35.4%	.0%	1.0%	9.2%
Metro	23.2%	.2%	25.2%	.0%	.0%	.0%	.0%	100.0%	10.9%	26.8%
Number of surveys	667	347	320	70	341	110	66	80	194	466

In which region do you use lakes next most?

Figures are column percents Region	Total	Respondent origin		Lake region used most					Riparian owner	
		NE	Not NE	Northwest	Northeast	Central	South	Metro	Yes	No
Northwest	21.8%	16.3%	22.3%	7.7%	12.6%	29.6%	37.3%	12.9%	19.8%	22.2%
North central	14.2%	19.7%	13.7%	24.0%	10.6%	16.2%	6.5%	15.1%	20.1%	12.8%
Northeast	8.2%	35.0%	5.9%	6.0%	18.5%	5.9%	2.6%	10.5%	12.9%	7.0%
Central	25.1%	23.1%	25.3%	35.4%	16.9%	4.0%	22.5%	50.5%	17.4%	26.9%
Southwest	9.6%	.3%	10.4%	16.3%	3.8%	13.3%	13.2%	2.1%	7.6%	10.2%
Southeast	6.6%	.3%	7.2%	6.9%	1.8%	8.0%	6.6%	7.9%	2.5%	7.7%
Metro	14.4%	5.3%	15.2%	3.8%	35.7%	23.0%	11.3%	1.0%	19.6%	13.3%
Number of surveys	575	300	275	52	295	100	56	71	155	416

Looking back: In general, over the last ten years, lake water quality in the region I use most has...

Figures are column percents Response	Total	Respondent origin		Lake region used most					Riparian owner	
		NE	Not NE	Northwest	Northeast	Central	South	Metro	Yes	No
Improved	13.2%	11.4%	13.3%	7.3%	7.6%	15.5%	15.5%	13.0%	9.1%	14.2%
Stayed the same	50.9%	66.1%	49.6%	56.1%	64.3%	50.7%	44.9%	46.5%	52.9%	50.3%
Worsened	22.3%	15.8%	22.9%	19.2%	17.1%	21.0%	27.4%	26.1%	28.2%	20.6%
Don't know	13.6%	6.7%	14.2%	17.5%	11.0%	12.8%	12.2%	14.4%	9.8%	14.9%
Number of surveys	666	347	319	69	335	110	65	78	194	465

Looking back: In general, over the last ten years, scenic beauty of lakes in the region I use most has...

Figures are column percents Response	Total	Respondent origin		Lake region used most					Riparian owner	
		NE	Not NE	Northwest	Northeast	Central	South	Metro	Yes	No
Improved	12.0%	9.4%	12.2%	12.4%	5.8%	10.7%	18.8%	10.6%	7.6%	13.4%
Stayed the same	59.0%	72.5%	57.8%	55.3%	66.4%	66.3%	56.0%	51.3%	62.4%	57.9%
Worsened	22.1%	16.2%	22.6%	24.6%	25.4%	17.5%	16.5%	29.8%	27.3%	20.6%
Don't know	6.9%	1.9%	7.3%	7.7%	2.4%	5.5%	8.7%	8.4%	2.7%	8.2%
Number of surveys	659	345	314	68	333	110	62	78	192	460

Looking forward: In general, over the next ten years, I expect lake water quality in the region I use most to...

Figures are column percents Response	Total	Respondent origin		Lake region used most					Riparian owner	
		NE	Not NE	Northwest	Northeast	Central	South	Metro	Yes	No
Improve	26.0%	28.5%	25.8%	28.6%	18.8%	18.1%	28.3%	35.8%	24.3%	26.7%
Stay the same	39.5%	51.7%	38.5%	44.5%	50.8%	44.0%	40.0%	23.0%	41.9%	38.9%
Worsen	27.8%	15.9%	28.9%	15.9%	26.9%	29.0%	26.5%	37.6%	26.0%	28.0%
Don't know	6.7%	3.9%	6.9%	11.0%	3.5%	9.0%	5.2%	3.6%	7.9%	6.4%
Number of surveys	665	347	318	69	336	108	66	78	194	465

Looking forward: In general, over the next ten years, I expect lake scenic beauty in the region I use most to...

Figures are column percents Response	Total	Respondent origin		Lake region used most					Riparian owner	
		NE	Not NE	Northwest	Northeast	Central	South	Metro	Yes	No
Improve	18.1%	20.7%	17.9%	21.6%	14.4%	14.3%	25.3%	15.6%	11.4%	19.9%
Stay the same	50.3%	60.0%	49.5%	47.1%	54.7%	52.2%	50.4%	47.2%	52.7%	49.6%
Worsen	26.3%	17.4%	27.1%	25.9%	28.4%	27.2%	20.9%	30.8%	28.0%	25.9%
Don't know	5.2%	1.9%	5.5%	5.5%	2.5%	6.3%	3.3%	6.3%	7.9%	4.5%
Number of surveys	665	347	318	69	335	109	66	78	193	465

What are your reasons for choosing to visit the lake you use most?

Figures are column percents Reason	Total	Respondent origin		Lake region used most					Riparian owner	
		NE	Not NE	Northwest	Northeast	Central	South	Metro	Yes	No
Close to home	69.0%	74.3%	68.6%	49.0%	47.5%	65.3%	80.1%	89.3%	62.4%	71.2%
Good fishing	45.0%	49.8%	44.6%	63.9%	50.9%	52.1%	36.5%	25.4%	42.0%	45.5%
Good boat access	38.9%	45.4%	38.3%	57.0%	31.7%	37.7%	43.2%	28.1%	42.8%	37.3%
Few motor boat regs	8.7%	16.7%	8.0%	11.7%	12.2%	6.7%	10.0%	6.0%	7.7%	8.8%
Motor boat regs	8.6%	4.1%	9.0%	13.5%	6.9%	5.9%	7.2%	10.5%	7.5%	8.4%
Cheap lodging, etc	14.6%	13.3%	14.7%	9.4%	22.7%	14.0%	19.1%	7.0%	5.0%	16.9%
Cheap to recreate	36.3%	34.9%	36.4%	30.4%	44.6%	28.1%	42.4%	40.9%	23.0%	40.0%
Have property	18.3%	25.1%	17.8%	32.9%	26.2%	22.8%	9.5%	6.9%	79.1%	.8%
Friends on lake	28.1%	35.9%	27.4%	42.7%	29.9%	31.0%	29.5%	12.7%	22.5%	29.4%
Scenic	54.1%	59.5%	53.6%	60.8%	71.1%	55.0%	45.1%	48.5%	64.4%	50.9%
Quiet	44.5%	52.4%	43.8%	62.4%	63.6%	45.4%	37.3%	26.3%	64.0%	38.5%
Shopping near	7.1%	4.2%	7.3%	7.9%	3.7%	9.9%	6.1%	6.3%	4.7%	7.3%
Good camping	14.2%	23.3%	13.4%	11.8%	24.2%	11.0%	23.1%	5.9%	4.0%	16.7%
Good resorts	9.0%	9.3%	9.0%	17.5%	6.7%	15.0%	3.2%	3.0%	7.4%	9.0%
Lots of services	11.9%	9.6%	12.1%	21.1%	6.8%	17.1%	8.3%	6.3%	6.5%	13.1%
Good trails	19.6%	18.0%	19.8%	12.5%	17.1%	21.0%	22.0%	23.3%	16.5%	20.5%
Pristine setting	16.7%	22.5%	16.2%	26.3%	39.9%	16.8%	9.3%	3.0%	26.9%	13.6%
Wildlife in area	31.3%	40.1%	30.6%	34.8%	51.3%	34.2%	30.4%	15.6%	41.2%	27.9%
Good water quality	32.1%	46.8%	30.9%	49.0%	48.3%	35.9%	24.4%	14.4%	45.2%	28.1%
Good road access	35.6%	50.7%	34.3%	49.8%	36.8%	35.3%	32.8%	27.9%	35.6%	35.4%
Good bird hunting	3.9%	7.9%	3.6%	9.6%	5.8%	4.3%	2.2%	.0%	3.9%	3.7%
Large lake	26.8%	35.9%	26.1%	38.2%	36.7%	29.3%	17.2%	19.9%	26.8%	26.5%
Small lake	28.5%	27.1%	28.7%	26.3%	26.0%	27.3%	37.5%	24.8%	31.8%	27.7%
Few people	27.3%	28.9%	27.2%	33.0%	38.4%	24.8%	32.0%	16.3%	31.1%	26.3%
Good swimming	26.7%	34.2%	26.1%	39.6%	26.9%	27.1%	14.4%	29.3%	32.2%	24.9%
Rec opps near	13.3%	13.5%	13.3%	19.8%	9.0%	19.0%	5.4%	12.5%	12.0%	13.3%
Golf near	12.7%	7.1%	13.2%	25.4%	13.5%	14.3%	8.3%	6.0%	13.0%	11.9%
Culture, etc near	5.1%	4.8%	5.1%	4.3%	8.8%	3.4%	9.0%	1.9%	7.2%	3.9%
Gone for years	40.1%	51.0%	39.2%	46.2%	56.6%	39.4%	41.5%	26.1%	40.5%	39.9%
Good beaches	18.6%	19.2%	18.6%	23.7%	15.2%	14.6%	13.3%	27.3%	16.6%	18.8%
Other	5.5%	2.1%	5.8%	4.2%	3.0%	3.3%	3.2%	12.9%	6.2%	5.4%
Number of surveys	665	347	318	69	336	110	66	78	192	466

Which of the activities do you participate in on or around the lake you use most?

Figures are column percents Activity	Total	Respondent origin		Lake region used most					Riparian owner	
		NE	Not NE	Northwest	Northeast	Central	South	Metro	Yes	No
Swim, wade	48.6%	51.1%	48.4%	54.4%	56.7%	52.1%	38.4%	46.8%	62.7%	44.4%
SCUBA	1.7%	1.9%	1.7%	4.2%	1.1%	2.5%	.0%	1.0%	5.2%	.4%
Shore fish	41.6%	44.0%	41.4%	35.8%	34.2%	51.1%	55.7%	26.7%	54.9%	37.9%
Motor boat fish	57.0%	66.3%	56.2%	73.8%	64.9%	63.2%	61.6%	27.7%	64.5%	54.5%
Other boat fish	14.3%	22.3%	13.6%	14.2%	25.5%	17.1%	12.2%	6.8%	21.7%	12.0%
Ice fish	30.2%	37.6%	29.5%	37.4%	28.1%	36.3%	27.4%	19.1%	35.8%	28.2%
Canoe/kayak/paddle	21.1%	26.7%	20.6%	21.1%	34.5%	22.1%	9.2%	23.7%	36.4%	16.6%
Windsurf	1.6%	1.0%	1.6%	.0%	.6%	1.7%	1.1%	3.6%	2.2%	1.4%
Sail	3.9%	5.1%	3.8%	2.7%	4.5%	3.3%	3.9%	4.9%	7.0%	2.7%
Motor boat	40.0%	42.4%	39.8%	42.4%	42.2%	51.9%	46.3%	19.2%	55.9%	35.5%
PWC	4.6%	5.5%	4.5%	2.8%	3.1%	6.5%	7.5%	2.0%	6.4%	4.1%
Water ski	18.4%	14.7%	18.7%	16.3%	11.2%	26.3%	16.4%	17.5%	26.0%	16.1%
Skip rocks	16.5%	20.5%	16.2%	15.7%	19.8%	15.6%	15.4%	17.9%	16.6%	16.4%
Rock/shell picking	12.6%	12.5%	12.6%	16.4%	21.4%	12.5%	11.1%	6.5%	16.8%	11.2%
Snowmobile	11.8%	22.8%	10.8%	12.6%	15.9%	16.5%	7.6%	7.4%	16.0%	10.6%
Waterfront events	8.3%	7.8%	8.3%	2.8%	6.3%	7.9%	12.3%	10.5%	3.3%	9.5%
Enjoy water scenery	63.9%	69.3%	63.4%	70.0%	75.0%	59.7%	51.4%	71.3%	70.2%	62.0%
Bird watch	29.0%	31.6%	28.8%	26.8%	39.5%	34.5%	22.6%	24.8%	54.1%	21.8%
Picnic, camp	31.9%	32.7%	31.8%	20.9%	33.9%	29.0%	40.4%	35.3%	19.2%	35.5%
Trails - nonmotor	20.8%	18.1%	21.1%	7.2%	19.9%	17.9%	28.1%	28.4%	15.3%	22.6%
Trails - motor	4.5%	12.7%	3.8%	4.3%	8.9%	7.4%	2.1%	1.0%	4.6%	4.5%
Be at home/cabin	33.0%	39.7%	32.4%	52.0%	39.1%	46.7%	20.7%	12.8%	79.2%	19.8%
Get away from it all	52.1%	58.9%	51.5%	57.5%	64.2%	52.6%	59.6%	33.1%	55.4%	51.1%
Socialize	53.9%	56.9%	53.7%	65.9%	52.7%	50.2%	54.2%	49.6%	61.8%	51.3%
Bonfires	24.8%	30.6%	24.3%	31.9%	31.4%	25.8%	27.2%	13.6%	33.4%	22.3%
Paint, photo	8.0%	7.8%	8.1%	10.2%	15.1%	5.7%	6.1%	7.2%	12.7%	6.8%
Other	5.1%	4.4%	5.2%	2.7%	3.9%	4.0%	5.1%	9.1%	1.5%	6.2%
Number of surveys	665	347	318	69	337	110	66	78	193	466

Which of the activities listed in 6A do you participate in the most?

Figures are column percents Activity	Total	Respondent origin		Lake region used most					Riparian owner	
		NE	Not NE	Northwest	Northeast	Central	South	Metro	Yes	No
Swim, wade	7.2%	6.7%	7.3%	4.7%	3.5%	8.9%	3.4%	13.2%	3.4%	8.4%
SCUBA	.5%	.0%	.5%	1.5%	.0%	.9%	.0%	.0%	2.1%	.0%
Shore fish	7.3%	9.5%	7.1%	1.6%	8.9%	8.0%	7.1%	9.0%	1.7%	8.9%
Motor boat fish	24.7%	31.5%	24.1%	37.3%	34.0%	25.2%	19.8%	15.4%	22.3%	24.7%
Other boat fish	1.7%	1.4%	1.7%	.0%	4.2%	2.6%	.0%	2.1%	2.3%	1.5%
Ice fish	2.6%	2.2%	2.6%	8.3%	1.3%	.9%	.0%	1.0%	.1%	3.3%
Canoe/kayak/paddle	1.3%	2.8%	1.2%	1.4%	3.2%	1.7%	.0%	1.0%	2.2%	1.1%
Sail	.3%	.9%	.2%	.0%	.5%	.0%	1.1%	.0%	.0%	.4%
Motor boat	5.7%	2.2%	6.0%	2.8%	1.3%	2.6%	17.4%	3.8%	8.0%	5.1%
PWC	.5%	.5%	.5%	.0%	.3%	1.7%	.0%	.0%	1.0%	.4%
Water ski	1.0%	.5%	1.0%	.0%	.3%	1.7%	.0%	2.1%	.0%	1.3%
Skip rocks	.6%	.3%	.7%	.0%	.2%	.0%	.0%	2.8%	.0%	.8%
Rock/shell picking	.0%	.2%	.0%	.0%	.0%	.1%	.0%	.0%	.0%	.0%
Snowmobile	2.5%	1.1%	2.6%	1.4%	.7%	4.0%	2.2%	1.1%	.0%	3.3%
Waterfront events	1.2%	.0%	1.3%	.0%	.0%	.0%	6.0%	.0%	.0%	1.6%
Enjoy water scenery	8.2%	5.6%	8.4%	4.4%	4.9%	9.7%	10.9%	9.1%	7.5%	8.5%
Bird watch	1.1%	2.5%	1.0%	.0%	2.7%	.9%	.0%	2.1%	1.6%	1.0%
Picnic, camp	3.1%	3.1%	3.1%	2.9%	1.7%	4.0%	4.1%	2.1%	2.1%	3.4%
Trails - nonmotor	4.8%	2.6%	5.0%	1.4%	3.3%	1.7%	3.0%	13.8%	1.1%	5.9%
Trails - motor	.0%	.2%	.0%	.0%	.1%	.0%	.0%	.0%	.0%	.0%
Be at home/cabin	9.4%	12.3%	9.2%	10.0%	10.4%	14.0%	8.7%	4.0%	30.8%	3.2%
Get away from it all	5.1%	5.0%	5.1%	8.5%	2.6%	1.7%	10.1%	3.8%	3.8%	5.5%
Socialize	10.0%	7.6%	10.2%	13.7%	13.5%	8.9%	6.3%	10.7%	9.0%	10.4%
Bonfires	.3%	.5%	.2%	.0%	.3%	.8%	.0%	.0%	1.0%	.1%
Paint, photo	.9%	.7%	.9%	.0%	2.2%	.0%	.0%	2.8%	.0%	1.2%
Number of surveys	648	339	309	66	330	108	64	74	191	451

Which activity do you participate in the second most?

Figures are column percents Activity	Total	Respondent origin		Lake region used most					Riparian owner	
		NE	Not NE	Northwest	Northeast	Central	South	Metro	Yes	No
Swim, wade	9.5%	6.9%	9.8%	24.3%	10.2%	11.1%	5.4%	2.0%	5.9%	10.7%
Shore fish	4.9%	4.9%	4.9%	6.5%	2.5%	1.9%	10.8%	3.6%	4.8%	4.9%
Motor boat fish	9.2%	10.4%	9.1%	8.3%	7.4%	13.1%	10.8%	2.7%	12.4%	8.4%
Other boat fish	.9%	2.2%	.8%	1.8%	1.1%	.9%	.0%	1.0%	3.1%	.2%
Ice fish	7.8%	8.2%	7.8%	11.1%	3.7%	7.2%	7.8%	8.9%	7.3%	7.7%
Canoe/kayak/paddle	2.2%	2.2%	2.2%	.0%	7.4%	.9%	.0%	4.0%	4.0%	1.7%
Windsurf	.0%	.3%	.0%	.0%	.1%	.0%	.0%	.0%	.0%	.0%
Sail	.6%	.0%	.7%	.0%	.0%	.0%	3.1%	.0%	.0%	.8%
Motor boat	6.6%	5.8%	6.6%	1.8%	6.3%	11.6%	6.8%	4.0%	8.9%	5.9%
PWC	.7%	.0%	.8%	1.6%	.0%	.9%	.0%	1.0%	.0%	.9%
Water ski	2.8%	1.2%	2.9%	1.6%	.6%	3.6%	6.5%	1.0%	4.9%	2.2%
Skip rocks	.9%	.5%	.9%	.0%	.3%	2.4%	.0%	1.0%	.1%	1.2%
Rock/shell picking	.7%	.3%	.7%	.0%	4.7%	.0%	.0%	.0%	.0%	.9%
Snowmobile	.8%	3.7%	.5%	.1%	2.0%	1.8%	.0%	.0%	1.5%	.5%
Waterfront events	.7%	.5%	.7%	.0%	.3%	.0%	.0%	2.7%	.0%	.9%
Enjoy water scenery	15.0%	11.0%	15.3%	12.2%	11.1%	8.9%	8.8%	31.7%	17.7%	14.3%
Bird watch	3.1%	1.5%	3.2%	6.3%	2.4%	4.9%	.0%	2.0%	7.1%	1.8%
Picnic, camp	8.5%	8.6%	8.5%	1.6%	11.1%	8.2%	14.6%	6.7%	3.7%	10.1%
Trails - nonmotor	4.6%	2.9%	4.7%	.0%	3.4%	4.9%	5.4%	7.1%	2.2%	5.3%
Trails - motor	.6%	1.7%	.5%	1.6%	1.0%	.9%	.0%	.0%	.1%	.8%
Be at home/cabin	2.9%	4.5%	2.7%	1.6%	4.1%	4.4%	4.3%	.1%	5.8%	2.0%
Get away from it all	5.4%	7.8%	5.1%	6.6%	11.1%	4.5%	6.9%	1.0%	3.5%	6.0%
Socialize	10.0%	11.6%	9.9%	8.8%	7.3%	6.5%	7.7%	18.7%	5.8%	11.1%
Bonfires	1.8%	2.7%	1.7%	4.3%	1.5%	1.7%	1.2%	1.0%	1.3%	1.7%
Paint, photo	.1%	.6%	.0%	.0%	.4%	.0%	.0%	.0%	.0%	.1%
Number of surveys	635	332	303	62	326	106	61	76	190	439

Which of the activities listed in 6A do you enjoy the most?
(The answer may be the same as 6B or 6C.)

Figures are column percents Activity	Total	Respondent origin		Lake region used most					Riparian owner	
		NE	Not NE	Northwest	Northeast	Central	South	Metro	Yes	No
Swim, wade	6.7%	4.8%	6.9%	3.5%	4.0%	7.8%	2.4%	13.4%	3.6%	7.7%
SCUBA	.3%	.2%	.3%	.0%	.1%	.9%	.0%	.0%	1.2%	.0%
Shore fish	5.3%	6.3%	5.2%	1.7%	7.1%	3.3%	6.6%	8.0%	2.9%	6.0%
Motor boat fish	22.2%	28.3%	21.6%	29.6%	29.6%	18.2%	21.6%	18.4%	20.7%	22.2%
Other boat fish	1.5%	1.0%	1.5%	.0%	3.9%	1.8%	.0%	2.1%	2.4%	1.2%
Ice fish	2.4%	2.8%	2.4%	8.0%	1.5%	1.8%	1.1%	1.0%	1.2%	2.8%
Canoe/kayak/paddle	1.0%	3.6%	.8%	.0%	1.9%	1.8%	.0%	1.0%	1.4%	.6%
Sail	1.4%	.9%	1.5%	.0%	.5%	.9%	4.3%	1.0%	2.1%	1.2%
Motor boat	4.4%	2.7%	4.5%	3.0%	1.6%	8.4%	5.8%	1.0%	2.5%	4.9%
PWC	1.2%	.5%	1.3%	.0%	.3%	2.7%	1.1%	1.1%	2.1%	1.0%
Water ski	1.3%	1.4%	1.3%	1.5%	.8%	1.8%	.0%	2.1%	1.2%	1.3%
Skip rocks	.0%	.3%	.0%	.0%	.2%	.0%	.0%	.0%	.1%	.0%
Rock/shell picking	.0%	.2%	.0%	.0%	.1%	.0%	.0%	.0%	.0%	.0%
Snowmobile	2.2%	2.2%	2.2%	1.5%	1.3%	4.2%	2.3%	1.1%	.1%	2.9%
Waterfront events	.2%	.0%	.3%	.0%	.0%	.9%	.0%	.0%	.0%	.3%
Enjoy water scenery	9.0%	7.9%	9.1%	8.8%	6.2%	12.5%	5.9%	9.9%	12.6%	8.1%
Bird watch	1.2%	3.2%	1.0%	.0%	3.2%	.0%	.0%	3.2%	1.5%	1.1%
Picnic, camp	3.2%	3.0%	3.2%	1.5%	1.7%	4.1%	5.5%	2.1%	1.1%	3.8%
Trails - nonmotor	5.4%	3.7%	5.5%	1.6%	5.7%	1.8%	4.3%	12.9%	1.2%	6.6%
Be at home/cabin	6.3%	7.7%	6.2%	10.3%	5.8%	9.6%	4.3%	2.0%	20.5%	2.2%
Get away from it all	8.7%	6.5%	8.9%	10.6%	4.8%	7.3%	18.1%	3.2%	7.0%	9.3%
Socialize	13.9%	10.8%	14.2%	16.8%	15.1%	10.2%	16.5%	10.9%	14.4%	13.9%
Bonfires	.4%	1.5%	.3%	.0%	2.5%	.1%	.0%	.0%	.3%	.4%
Paint, photo	1.8%	.5%	1.9%	1.6%	2.1%	.0%	.0%	5.6%	.0%	2.4%
Number of surveys	628	329	299	65	321	104	61	73	186	436

Which activity do you enjoy the second most?
(The answer may be the same as 6B or 6C.)

Figures are column percents Activity	Total	Respondent origin		Lake region used most					Riparian owner	
		NE	Not NE	Northwest	Northeast	Central	South	Metro	Yes	No
Swim, wade	6.5%	6.9%	6.4%	16.6%	7.1%	8.7%	1.2%	2.0%	5.4%	6.8%
SCUBA	.0%	.2%	.0%	.0%	.1%	.0%	.0%	.0%	.1%	.0%
Shore fish	4.3%	4.6%	4.2%	4.9%	4.2%	5.2%	5.5%	2.0%	3.5%	4.6%
Motor boat fish	9.7%	10.3%	9.6%	10.0%	8.7%	11.1%	16.5%	3.0%	11.3%	9.3%
Other boat fish	1.2%	3.0%	1.0%	1.6%	1.7%	.9%	.0%	1.9%	3.3%	.5%
Ice fish	6.1%	5.8%	6.1%	3.3%	2.7%	7.4%	6.8%	7.9%	5.4%	6.0%
Canoe/kayak/paddle	3.0%	3.6%	3.0%	3.1%	8.3%	.9%	1.1%	4.0%	5.0%	2.5%
Windsurf	.0%	.3%	.0%	.0%	.1%	.0%	.0%	.0%	.0%	.0%
Sail	.3%	.3%	.3%	.0%	.1%	.0%	.0%	1.0%	.0%	.3%
Motor boat	6.9%	5.2%	7.1%	2.1%	2.3%	8.9%	14.1%	4.7%	10.8%	5.9%
PWC	.7%	.0%	.8%	1.6%	.0%	.0%	.0%	2.0%	.0%	.9%
Water ski	2.6%	1.3%	2.7%	1.6%	.6%	2.8%	4.6%	2.7%	1.3%	3.1%
Skip rocks	.7%	1.0%	.7%	.0%	.6%	.0%	.0%	2.7%	.2%	.9%
Rock/shell picking	.6%	.0%	.7%	.0%	4.6%	.0%	.0%	.0%	.0%	.8%
Snowmobile	1.4%	3.2%	1.3%	1.8%	1.7%	3.6%	.0%	.0%	1.6%	1.4%
Waterfront events	.7%	.2%	.7%	.0%	.1%	.0%	.0%	2.7%	.0%	.9%
Enjoy water scenery	18.2%	13.1%	18.7%	15.6%	12.0%	14.1%	15.7%	30.6%	13.6%	19.8%
Bird watch	5.1%	2.7%	5.3%	4.7%	6.8%	4.5%	4.3%	5.7%	11.4%	3.2%
Picnic, camp	6.2%	5.4%	6.2%	1.8%	7.2%	7.8%	6.3%	6.7%	1.0%	7.8%
Trails - nonmotor	2.6%	3.5%	2.5%	1.6%	3.7%	2.4%	2.3%	3.0%	1.2%	3.0%
Trails - motor	.2%	2.0%	.0%	.0%	1.1%	.0%	.0%	.0%	.1%	.2%
Be at home/cabin	4.3%	4.9%	4.2%	7.5%	4.4%	4.2%	4.6%	2.1%	6.9%	3.5%
Get away from it all	5.9%	9.6%	5.6%	10.9%	12.1%	2.8%	4.7%	1.0%	7.6%	5.4%
Socialize	9.7%	7.7%	9.9%	10.0%	5.3%	11.2%	7.8%	12.4%	6.9%	10.3%
Bonfires	2.6%	3.8%	2.5%	.0%	1.9%	3.6%	4.3%	2.0%	2.3%	2.4%
Paint, photo	.6%	1.4%	.5%	1.6%	2.5%	.0%	.0%	.0%	1.1%	.4%
Number of surveys	628	329	299	63	322	102	61	76	187	435

For each of the items below, how do you rate the current condition of the lake you use most?
Water quality

Figures are column percents Rating	Total	Respondent origin		Lake region used most					Riparian owner	
		NE	Not NE	Northwest	Northeast	Central	South	Metro	Yes	No
Excellent	8.8%	10.3%	8.7%	7.4%	18.4%	9.6%	7.9%	3.6%	8.2%	8.5%
Good	47.1%	63.8%	45.7%	58.4%	52.9%	53.2%	36.4%	38.0%	53.3%	45.6%
Fair	33.3%	21.7%	34.2%	25.1%	21.4%	31.5%	34.7%	48.0%	28.1%	35.1%
Poor	7.7%	1.2%	8.2%	5.3%	4.0%	2.5%	16.9%	9.4%	8.3%	7.3%
Don't know	3.2%	3.0%	3.2%	3.8%	3.3%	3.1%	4.1%	1.0%	2.0%	3.5%
Number of surveys	659	341	318	67	330	109	66	79	192	460

For each of the items below, how do you rate the current condition of the lake you use most?
Fishing

Figures are column percents Rating	Total	Respondent origin		Lake region used most					Riparian owner	
		NE	Not NE	Northwest	Northeast	Central	South	Metro	Yes	No
Excellent	3.5%	2.4%	3.6%	4.5%	8.8%	2.6%	2.2%	.9%	3.2%	3.3%
Good	36.3%	42.7%	35.7%	39.0%	33.6%	48.2%	29.7%	27.1%	37.2%	36.0%
Fair	36.6%	37.9%	36.5%	41.7%	37.2%	33.0%	47.8%	28.4%	47.1%	33.9%
Poor	5.5%	8.0%	5.3%	1.4%	7.8%	1.9%	10.1%	7.5%	7.4%	4.8%
Don't know	18.1%	8.9%	18.9%	13.3%	12.5%	14.4%	10.2%	36.1%	5.1%	22.0%
Number of surveys	655	336	319	69	326	108	66	78	190	459

For each of the items below, how do you rate the current condition of the lake you use most?
Condition of the land area close to the shoreline (0-100 ft. from shore)

Figures are column percents Rating	Total	Respondent origin		Lake region used most					Riparian owner	
		NE	Not NE	Northwest	Northeast	Central	South	Metro	Yes	No
Excellent	6.8%	9.6%	6.5%	6.1%	11.1%	6.0%	9.3%	3.6%	3.4%	7.2%
Good	55.0%	63.9%	54.2%	53.9%	58.5%	61.8%	46.8%	52.3%	58.1%	54.3%
Fair	28.3%	20.2%	29.0%	32.8%	23.7%	22.5%	31.6%	32.8%	28.6%	28.4%
Poor	5.0%	3.3%	5.2%	7.0%	3.5%	4.9%	4.1%	5.8%	5.7%	4.9%
Don't know	4.9%	3.0%	5.1%	.1%	3.2%	4.8%	8.3%	5.5%	4.2%	5.2%
Number of surveys	648	335	313	65	326	107	65	78	188	454

For each of the items below, how do you rate the current condition of the lake you use most?
Condition of the land area away from the shoreline (100-1000 ft. from shore)

Figures are column percents Rating	Total	Respondent origin		Lake region used most					Riparian owner	
		NE	Not NE	Northwest	Northeast	Central	South	Metro	Yes	No
Excellent	7.9%	8.8%	7.9%	3.0%	11.6%	9.2%	12.8%	3.6%	6.6%	8.1%
Good	55.3%	60.1%	54.9%	65.9%	48.9%	50.0%	54.0%	58.7%	55.6%	55.5%
Fair	24.8%	20.3%	25.2%	19.9%	20.6%	28.3%	26.8%	25.7%	24.3%	24.8%
Poor	1.5%	2.0%	1.5%	.0%	2.7%	.9%	1.1%	2.9%	4.2%	.7%
Don't know	10.4%	8.9%	10.5%	11.1%	16.2%	11.5%	5.4%	9.1%	9.3%	10.8%
Number of surveys	652	339	313	65	330	108	64	78	192	454

For each of the items below, how do you rate the current condition of the lake you use most?
Scenic quality of the lake and shoreland areas

Figures are column percents Rating	Total	Respondent origin		Lake region used most					Riparian owner	
		NE	Not NE	Northwest	Northeast	Central	South	Metro	Yes	No
Excellent	17.0%	26.7%	16.1%	21.7%	29.1%	15.8%	21.0%	4.7%	22.1%	15.4%
Good	55.9%	56.6%	55.8%	55.6%	54.6%	55.0%	59.3%	54.1%	55.6%	55.8%
Fair	24.5%	15.0%	25.3%	22.7%	15.5%	27.4%	17.3%	35.3%	20.1%	26.1%
Poor	2.1%	.9%	2.2%	.0%	.5%	1.7%	1.1%	5.9%	2.2%	2.1%
Don't know	.5%	.8%	.5%	.0%	.3%	.0%	1.2%	.0%	.0%	.7%
Number of surveys	653	341	312	69	331	106	64	76	189	457

For each of the items below, how do you rate the current condition of the lake you use most?
Overall condition of the lake and shoreland areas

Figures are column percents Rating	Total	Respondent origin		Lake region used most					Riparian owner	
		NE	Not NE	Northwest	Northeast	Central	South	Metro	Yes	No
Excellent	6.0%	10.1%	5.6%	7.1%	6.7%	5.4%	8.3%	3.6%	7.6%	5.3%
Good	64.0%	70.0%	63.4%	63.7%	73.3%	69.1%	54.8%	60.6%	68.2%	62.9%
Fair	25.8%	18.2%	26.5%	24.1%	17.4%	23.0%	30.6%	31.9%	20.2%	27.8%
Poor	2.6%	.5%	2.8%	1.4%	2.0%	.8%	5.1%	3.9%	3.1%	2.3%
Don't know	1.6%	1.2%	1.6%	3.7%	.6%	1.7%	1.2%	.0%	1.0%	1.8%
Number of surveys	661	342	319	69	332	108	66	79	193	461

For each of the items below, please tell us if you think there is too much, too little or about the right amount in the lake you use the most.
Rooted vegetation near shore

Figures are column percents Amount	Total	Respondent origin		Lake region used most					Riparian owner	
		NE	Not NE	Northwest	Northeast	Central	South	Metro	Yes	No
Too much	16.6%	19.1%	16.4%	7.9%	18.0%	16.9%	25.7%	14.5%	18.0%	16.4%
About right	59.7%	67.9%	59.0%	67.8%	65.6%	65.9%	50.1%	53.7%	62.8%	58.4%
Too little	8.7%	4.1%	9.1%	4.4%	8.3%	5.9%	9.7%	14.8%	12.4%	7.7%
Don't know	15.0%	8.9%	15.5%	19.9%	8.1%	11.4%	14.5%	17.0%	6.9%	17.5%
Number of surveys	645	340	305	66	330	105	61	76	191	448

For each of the items below, please tell us if you think there is too much, too little or about the right amount in the lake you use the most.
Floating algae and/or scum on the surface

Figures are column percents Amount	Total	Respondent origin		Lake region used most					Riparian owner	
		NE	Not NE	Northwest	Northeast	Central	South	Metro	Yes	No
Too much	37.7%	20.9%	39.2%	24.0%	27.3%	28.5%	60.9%	44.8%	46.9%	35.4%
About right	44.7%	61.2%	43.3%	52.5%	62.0%	54.2%	26.2%	36.1%	46.3%	43.7%
Too little	1.7%	1.6%	1.7%	7.1%	.8%	1.7%	.0%	.0%	1.0%	1.9%
Don't know	16.0%	16.2%	15.9%	16.4%	9.9%	15.5%	12.9%	19.1%	5.8%	19.1%
Number of surveys	644	336	308	64	327	107	64	76	189	449

For each of the items below, please tell us if you think there is too much, too little or about the right amount in the lake you use the most.
Fish habitat

Figures are column percents Amount	Total	Respondent origin		Lake region used most					Riparian owner	
		NE	Not NE	Northwest	Northeast	Central	South	Metro	Yes	No
Too much	.0%	.3%	.0%	.0%	.1%	.0%	.0%	.0%	.0%	.0%
About right	55.7%	63.8%	55.0%	57.5%	63.1%	63.3%	55.8%	42.7%	52.5%	56.2%
Too little	18.1%	24.6%	17.5%	20.5%	22.9%	13.6%	21.2%	14.1%	34.1%	13.6%
Don't know	26.2%	11.3%	27.5%	22.0%	13.8%	23.1%	23.1%	43.2%	13.4%	30.2%
Number of surveys	645	338	307	65	329	105	64	75	191	448

For each of the items below, please tell us if you think there is too much, too little or about the right amount in the lake you use the most.
Keeper-size pan and game fish

Figures are column percents Amount	Total	Respondent origin		Lake region used most					Riparian owner	
		NE	Not NE	Northwest	Northeast	Central	South	Metro	Yes	No
About right	43.2%	47.1%	42.9%	57.6%	43.4%	52.2%	42.0%	24.7%	38.2%	44.4%
Too little	32.1%	40.5%	31.3%	26.5%	44.0%	29.6%	40.2%	23.3%	52.7%	26.1%
Don't know	24.8%	12.5%	25.8%	15.9%	12.6%	18.2%	17.8%	52.0%	9.1%	29.5%
Number of surveys	653	338	315	69	330	108	64	77	192	455

For each of the items below, please tell us if you think there is too much, too little or about the right amount in the lake you use the most.
Diversity of birds and wildlife

Figures are column percents Amount	Total	Respondent origin		Lake region used most					Riparian owner	
		NE	Not NE	Northwest	Northeast	Central	South	Metro	Yes	No
Too much	1.5%	.0%	1.7%	.0%	.0%	3.2%	2.3%	1.0%	.0%	2.0%
About right	69.0%	82.2%	67.9%	83.5%	79.5%	72.4%	68.4%	49.6%	84.9%	64.1%
Too little	16.8%	13.7%	17.1%	4.8%	16.6%	16.2%	18.6%	24.8%	14.0%	17.8%
Don't know	12.7%	4.1%	13.4%	11.7%	3.9%	8.1%	10.8%	24.6%	1.1%	16.1%
Number of surveys	653	342	311	66	334	106	63	78	193	454

For each of the items below, please tell us if you think there is too much, too little or about the right amount in the lake you use the most.
Loons

Figures are column percents Amount	Total	Respondent origin		Lake region used most					Riparian owner	
		NE	Not NE	Northwest	Northeast	Central	South	Metro	Yes	No
Too much	.9%	.7%	.9%	.0%	.4%	3.2%	.0%	.0%	.1%	1.2%
About right	44.9%	72.2%	42.5%	71.2%	70.5%	57.8%	21.5%	16.4%	61.0%	39.6%
Too little	38.2%	20.0%	39.8%	19.0%	25.4%	27.9%	63.3%	50.2%	37.8%	38.7%
Don't know	16.0%	7.1%	16.8%	9.8%	3.6%	11.2%	15.2%	33.4%	1.2%	20.6%
Number of surveys	651	341	310	66	332	107	62	78	193	452

For each of the items below, please tell us if you think there is too much, too little or about the right amount in the lake you use the most.
Shoreland housing

Figures are column percents Amount	Total	Respondent origin		Lake region used most					Riparian owner	
		NE	Not NE	Northwest	Northeast	Central	South	Metro	Yes	No
Too much	35.5%	28.3%	36.1%	19.0%	38.4%	42.3%	34.9%	39.1%	38.9%	34.5%
About right	50.1%	60.4%	49.2%	63.1%	52.1%	50.0%	46.7%	44.8%	53.1%	49.1%
Too little	2.2%	3.0%	2.2%	3.0%	3.3%	.1%	5.4%	1.0%	3.0%	2.0%
Don't know	12.2%	8.3%	12.5%	14.9%	6.3%	7.7%	13.0%	15.0%	5.0%	14.4%
Number of surveys	641	335	306	63	327	108	61	76	190	445

For each of the items below, please tell us if you think there is too much, too little or about the right amount in the lake you use the most.
Motorized watercraft

Figures are column percents Amount	Total	Respondent origin		Lake region used most					Riparian owner	
		NE	Not NE	Northwest	Northeast	Central	South	Metro	Yes	No
Too much	29.0%	22.8%	29.5%	18.4%	25.8%	35.3%	31.2%	30.3%	31.4%	28.1%
About right	59.5%	72.2%	58.4%	68.7%	71.4%	56.9%	58.1%	49.0%	63.8%	58.3%
Too little	1.0%	1.4%	1.0%	1.4%	.8%	.8%	1.1%	1.1%	1.0%	1.0%
Don't know	10.5%	3.7%	11.1%	11.5%	2.0%	6.9%	9.6%	19.7%	3.8%	12.6%
Number of surveys	648	339	309	67	330	107	63	75	192	449

For each of the items below, please tell us if you think there is too much, too little or about the right amount in the lake you use the most.
Natural shoreline vegetation (trees and shrubs)

Figures are column percents Amount	Total	Respondent origin		Lake region used most					Riparian owner	
		NE	Not NE	Northwest	Northeast	Central	South	Metro	Yes	No
Too much	2.3%	2.7%	2.2%	1.4%	3.0%	1.8%	2.3%	2.9%	3.4%	1.9%
About right	74.3%	85.3%	73.4%	79.4%	81.5%	75.1%	78.2%	62.5%	78.7%	73.1%
Too little	16.1%	9.3%	16.7%	11.6%	14.2%	17.6%	11.1%	23.8%	15.1%	16.3%
Don't know	7.3%	2.6%	7.7%	7.6%	1.4%	5.5%	8.5%	10.8%	2.8%	8.7%
Number of surveys	652	341	311	68	332	105	63	78	192	454

In your opinion, how much of a problem have the following items been in the lake you use most?
Level of fish contamination

Figures are column percents Problem	Total	Respondent origin		Lake region used most					Riparian owner	
		NE	Not NE	Northwest	Northeast	Central	South	Metro	Yes	No
Major problem	5.6%	3.4%	5.8%	.0%	5.3%	.9%	13.5%	8.6%	3.2%	6.1%
Moderate problem	14.0%	17.9%	13.7%	14.1%	16.3%	10.3%	11.2%	20.0%	16.8%	13.4%
Minimal problem	27.4%	29.5%	27.3%	29.4%	22.8%	35.4%	29.2%	18.5%	33.7%	25.9%
Not a problem	15.3%	22.7%	14.7%	23.3%	27.8%	18.6%	8.5%	5.5%	16.0%	14.8%
Don't know	37.6%	26.4%	38.5%	33.2%	27.9%	34.8%	37.6%	47.3%	30.3%	39.8%
Number of surveys	660	342	318	68	332	109	65	79	193	460

In your opinion, how much of a problem have the following items been in the lake you use most?
Presence of exotic species (such as Eurasian water milfoil, purple loosestrife, etc.)

Figures are column percents Problem	Total	Respondent origin		Lake region used most					Riparian owner	
		NE	Not NE	Northwest	Northeast	Central	South	Metro	Yes	No
Major problem	10.6%	3.3%	11.2%	1.4%	3.6%	5.8%	19.7%	19.2%	11.2%	10.5%
Moderate problem	11.5%	7.7%	11.8%	8.3%	8.7%	12.6%	6.7%	18.8%	15.6%	10.4%
Minimal problem	18.9%	21.9%	18.6%	18.3%	21.4%	30.8%	10.8%	12.2%	18.3%	18.9%
Not a problem	20.6%	31.8%	19.7%	33.0%	30.2%	18.6%	20.7%	9.1%	33.7%	17.1%
Don't know	38.4%	35.3%	38.6%	39.0%	36.1%	32.2%	42.2%	40.7%	21.2%	43.1%
Number of surveys	656	340	316	69	330	108	65	78	192	458

How many years have you used the lake you use most?

Figures are column percents Years	Total	Respondent origin		Lake region used most					Riparian owner	
		NE	Not NE	Northwest	Northeast	Central	South	Metro	Yes	No
Mean	19.2	23.4	18.8	19.8	25.1	18.6	22.3	12.9	23.3	17.8
Median	16.0	20.0	15.0	20.0	25.0	16.0	20.0	10.0	24.0	15.0
Minimum	1.0	1.0	1.0	2.0	1.0	1.0	1.0	1.0	1.0	1.0
Maximum	75.0	75.0	70.0	70.0	75.0	60.0	66.0	50.0	60.0	75.0
Number of surveys	654	343	311	67	332	107	64	77	193	455

How many years have you used the lake you use most?

Figures are column percents Years	Total	Respondent origin		Lake region used most					Riparian owner	
		NE	Not NE	Northwest	Northeast	Central	South	Metro	Yes	No
1 - 5	23.3%	12.3%	24.2%	24.8%	8.0%	21.2%	20.6%	34.4%	14.5%	26.1%
6 - 10	14.6%	17.2%	14.3%	10.0%	15.8%	13.8%	13.5%	19.3%	10.2%	16.0%
11 - 20	26.2%	23.3%	26.4%	20.9%	22.3%	29.1%	22.3%	33.4%	21.0%	27.6%
21 -30	18.8%	19.9%	18.7%	26.9%	25.2%	21.3%	17.6%	8.1%	29.6%	15.5%
31+	17.2%	27.3%	16.3%	17.4%	28.7%	14.5%	26.1%	4.8%	24.8%	14.8%
Number of surveys	654	343	311	67	332	107	64	77	193	455

Over these years, have the following conditions improved, worsened or remained about the same on the lake you use most?
Water quality

Figures are column percents Rating	Total	Respondent origin		Lake region used most					Riparian owner	
		NE	Not NE	Northwest	Northeast	Central	South	Metro	Yes	No
Improved	11.3%	7.7%	11.6%	13.5%	5.3%	11.5%	11.7%	12.0%	8.6%	12.1%
Stayed the same	56.2%	65.8%	55.3%	57.0%	66.9%	58.0%	49.0%	53.2%	52.2%	57.1%
Worsened	23.9%	19.9%	24.3%	14.1%	22.4%	23.4%	32.0%	26.5%	31.3%	21.8%
Don't know	8.6%	6.5%	8.8%	15.3%	5.4%	7.1%	7.2%	8.3%	7.8%	9.0%
Number of surveys	663	345	318	69	334	109	65	78	194	462

Over these years, have the following conditions improved, worsened or remained about the same on the lake you use most?
Fishing

Figures are column percents Rating	Total	Respondent origin		Lake region used most					Riparian owner	
		NE	Not NE	Northwest	Northeast	Central	South	Metro	Yes	No
Improved	6.7%	6.2%	6.8%	1.8%	6.5%	1.7%	15.0%	8.2%	.3%	8.6%
Stayed the same	44.7%	48.9%	44.3%	51.8%	42.4%	53.7%	40.8%	33.0%	45.4%	44.7%
Worsened	26.2%	35.6%	25.4%	24.2%	38.6%	27.3%	33.5%	13.8%	43.5%	20.6%
Don't know	22.4%	9.2%	23.5%	22.2%	12.6%	17.4%	10.7%	44.9%	10.8%	26.1%
Number of surveys	661	344	317	69	333	109	64	78	194	460

Over these years, have the following conditions improved, worsened or remained about the same on the lake you use most?
Condition of the land area close to the shoreline (0-100 ft. from shore)

Figures are column percents Rating	Total	Respondent origin		Lake region used most					Riparian owner	
		NE	Not NE	Northwest	Northeast	Central	South	Metro	Yes	No
Improved	8.3%	6.3%	8.5%	1.8%	4.7%	3.6%	18.1%	12.1%	3.4%	9.8%
Stayed the same	63.0%	73.8%	62.1%	67.3%	65.3%	69.8%	57.6%	55.2%	62.0%	63.2%
Worsened	17.5%	14.3%	17.8%	16.3%	26.9%	18.7%	10.1%	19.0%	27.7%	14.5%
Don't know	11.1%	5.6%	11.6%	14.6%	3.1%	8.0%	14.3%	13.8%	6.9%	12.4%
Number of surveys	653	341	312	66	331	108	65	77	191	456

Over these years, have the following conditions improved, worsened or remained about the same on the lake you use most?
Condition of the land area away from the shoreline (100-1000 ft. from shore)

Figures are column percents Rating	Total	Respondent origin		Lake region used most					Riparian owner	
		NE	Not NE	Northwest	Northeast	Central	South	Metro	Yes	No
Improved	8.4%	4.7%	8.8%	2.9%	3.9%	2.7%	15.4%	16.1%	.3%	10.9%
Stayed the same	66.5%	74.3%	65.9%	75.4%	67.6%	70.3%	65.0%	56.2%	70.6%	65.1%
Worsened	10.3%	9.7%	10.4%	6.2%	14.1%	10.9%	6.6%	13.9%	17.8%	8.2%
Don't know	14.7%	11.3%	15.0%	15.5%	14.4%	16.1%	13.0%	13.8%	11.3%	15.9%
Number of surveys	654	341	313	68	331	109	63	77	191	457

Over these years, have the following conditions improved, worsened or remained about the same on the lake you use most?
Scenic quality of the lake and shoreland areas

Figures are column percents Rating	Total	Respondent origin		Lake region used most					Riparian owner	
		NE	Not NE	Northwest	Northeast	Central	South	Metro	Yes	No
Improved	9.3%	8.9%	9.3%	5.5%	5.7%	6.2%	17.8%	9.3%	6.3%	10.2%
Stayed the same	67.0%	77.4%	66.1%	70.3%	72.2%	68.4%	57.8%	68.5%	69.4%	66.1%
Worsened	18.0%	12.1%	18.6%	15.2%	21.2%	19.1%	16.1%	19.5%	20.5%	17.3%
Don't know	5.7%	1.6%	6.1%	9.0%	.8%	6.2%	8.3%	2.7%	3.7%	6.4%
Number of surveys	660	343	317	68	333	109	65	78	193	460

Over these years, have the following conditions improved, worsened or remained about the same on the lake you use most?
Overall condition of the lake and shoreland areas

Figures are column percents Rating	Total	Respondent origin		Lake region used most					Riparian owner	
		NE	Not NE	Northwest	Northeast	Central	South	Metro	Yes	No
Improved	11.5%	6.8%	11.9%	6.9%	6.5%	4.4%	20.2%	18.3%	7.4%	12.8%
Stayed the same	62.7%	79.2%	61.3%	66.0%	69.6%	73.5%	48.6%	56.6%	56.7%	64.6%
Worsened	20.7%	9.9%	21.6%	18.2%	21.7%	18.0%	24.2%	22.5%	32.1%	17.0%
Don't know	5.1%	4.1%	5.2%	8.9%	2.2%	4.1%	7.0%	2.7%	3.8%	5.5%
Number of surveys	658	341	317	69	331	108	66	78	194	457

Over these same years, have the following items increased, decreased or remained about the same on the lake you use most?
Rooted vegetation near shore

Figures are column percents Amount	Total	Respondent origin		Lake region used most					Riparian owner	
		NE	Not NE	Northwest	Northeast	Central	South	Metro	Yes	No
Increased	19.4%	20.6%	19.3%	19.5%	17.3%	18.4%	26.5%	16.1%	22.2%	18.7%
Stayed the same	56.3%	64.2%	55.6%	52.4%	65.1%	61.1%	51.3%	54.7%	57.2%	56.0%
Decreased	9.1%	4.8%	9.5%	11.0%	8.6%	11.6%	7.4%	7.1%	15.6%	7.3%
Don't know	15.1%	10.4%	15.5%	17.1%	9.0%	8.9%	14.9%	22.2%	5.1%	17.9%
Number of surveys	657	343	314	68	333	109	65	76	194	457

Over these same years, have the following items increased, decreased or remained about the same on the lake you use most?
Floating algae and/or scum on the surface

Figures are column percents Amount	Total	Respondent origin		Lake region used most					Riparian owner	
		NE	Not NE	Northwest	Northeast	Central	South	Metro	Yes	No
Increased	34.4%	17.0%	35.9%	26.4%	22.6%	28.3%	50.0%	41.5%	36.5%	33.8%
Stayed the same	46.3%	60.7%	45.1%	47.3%	62.6%	57.6%	33.3%	36.0%	53.1%	44.4%
Decreased	4.7%	4.7%	4.7%	8.4%	2.4%	6.6%	3.3%	3.0%	4.2%	4.9%
Don't know	14.6%	17.6%	14.3%	17.8%	12.4%	7.5%	13.4%	19.5%	6.2%	16.8%
Number of surveys	657	344	313	67	334	108	65	77	193	458

Over these same years, have the following items increased, decreased or remained about the same on the lake you use most?
Fish habitat

Figures are column percents Amount	Total	Respondent origin		Lake region used most					Riparian owner	
		NE	Not NE	Northwest	Northeast	Central	South	Metro	Yes	No
Increased	1.8%	2.4%	1.7%	2.9%	3.0%	.0%	2.2%	2.0%	1.1%	2.0%
Stayed the same	51.1%	58.5%	50.5%	53.9%	58.7%	58.3%	49.8%	36.3%	51.7%	50.8%
Decreased	18.0%	24.4%	17.5%	17.9%	23.0%	16.6%	23.1%	13.0%	33.2%	13.8%
Don't know	29.1%	14.7%	30.3%	25.2%	15.3%	25.1%	24.9%	48.8%	14.1%	33.5%
Number of surveys	657	342	315	69	332	108	65	77	193	458

Over these same years, have the following items increased, decreased or remained about the same on the lake you use most?
Keeper-size pan and game fish

Figures are column percents Amount	Total	Respondent origin		Lake region used most					Riparian owner	
		NE	Not NE	Northwest	Northeast	Central	South	Metro	Yes	No
Increased	2.3%	1.7%	2.4%	1.4%	.8%	1.7%	5.1%	2.0%	1.0%	2.7%
Stayed the same	42.5%	47.8%	42.0%	47.4%	45.5%	45.8%	44.6%	30.6%	42.2%	42.7%
Decreased	26.6%	37.2%	25.7%	27.0%	39.0%	28.8%	25.3%	17.7%	44.9%	21.2%
Don't know	28.6%	13.3%	29.9%	24.2%	14.6%	23.7%	25.0%	49.8%	12.0%	33.4%
Number of surveys	659	343	316	68	333	109	65	77	194	459

Over these same years, have the following items increased, decreased or remained about the same on the lake you use most?
Diversity of birds and wildlife

Figures are column percents Amount	Total	Respondent origin		Lake region used most					Riparian owner	
		NE	Not NE	Northwest	Northeast	Central	South	Metro	Yes	No
Increased	3.7%	7.4%	3.4%	1.4%	5.8%	3.6%	5.2%	3.0%	3.9%	3.6%
Stayed the same	67.7%	72.1%	67.3%	71.6%	69.0%	73.0%	65.0%	59.9%	73.8%	66.0%
Decreased	11.3%	11.6%	11.2%	10.4%	15.1%	11.7%	9.6%	11.1%	17.3%	9.6%
Don't know	17.3%	8.9%	18.1%	16.7%	10.1%	11.7%	20.2%	25.9%	5.1%	20.8%
Number of surveys	659	343	316	69	333	109	65	77	194	459

Over these same years, have the following items increased, decreased or remained about the same on the lake you use most?
Loons

Figures are column percents Amount	Total	Respondent origin		Lake region used most					Riparian owner	
		NE	Not NE	Northwest	Northeast	Central	South	Metro	Yes	No
Increased	3.6%	7.7%	3.2%	5.6%	5.8%	6.0%	1.1%	.1%	7.4%	2.5%
Stayed the same	55.9%	70.7%	54.7%	62.7%	69.9%	63.2%	45.2%	42.6%	64.0%	53.7%
Decreased	15.7%	12.0%	16.0%	11.3%	15.4%	13.4%	22.8%	16.1%	23.3%	13.3%
Don't know	24.8%	9.6%	26.1%	20.4%	8.8%	17.4%	30.9%	41.2%	5.3%	30.5%
Number of surveys	654	341	313	69	331	109	63	76	194	454

Over these same years, have the following items increased, decreased or remained about the same on the lake you use most?
Shoreland housing

Figures are column percents Amount	Total	Respondent origin		Lake region used most					Riparian owner	
		NE	Not NE	Northwest	Northeast	Central	South	Metro	Yes	No
Increased	50.5%	55.7%	50.0%	45.0%	59.3%	60.8%	51.3%	38.7%	59.3%	48.0%
Stayed the same	35.1%	35.7%	35.0%	39.4%	30.8%	29.7%	29.7%	43.7%	35.7%	34.9%
Decreased	1.1%	2.3%	1.0%	.0%	1.4%	.8%	2.3%	1.0%	.1%	1.4%
Don't know	13.4%	6.3%	14.0%	15.6%	8.5%	8.7%	16.7%	16.5%	4.9%	15.7%
Number of surveys	652	340	312	69	329	107	64	77	194	452

Over these same years, have the following items increased, decreased or remained about the same on the lake you use most?
Motorized watercraft

Figures are column percents Amount	Total	Respondent origin		Lake region used most					Riparian owner	
		NE	Not NE	Northwest	Northeast	Central	South	Metro	Yes	No
Increased	51.5%	57.8%	51.0%	45.1%	59.2%	64.2%	58.3%	32.4%	59.0%	49.5%
Stayed the same	34.3%	36.1%	34.2%	40.8%	35.7%	22.7%	31.2%	43.7%	36.9%	33.6%
Decreased	1.1%	1.9%	1.0%	1.4%	1.1%	.0%	1.1%	2.0%	.4%	1.3%
Don't know	13.1%	4.2%	13.9%	12.7%	4.0%	13.1%	9.4%	21.8%	3.7%	15.7%
Number of surveys	656	342	314	69	331	109	65	76	194	456

Over these same years, have the following items increased, decreased or remained about the same on the lake you use most?
Natural shoreline vegetation (trees and shrubs)

Figures are column percents Amount	Total	Respondent origin		Lake region used most					Riparian owner	
		NE	Not NE	Northwest	Northeast	Central	South	Metro	Yes	No
Increased	5.0%	3.2%	5.2%	1.7%	4.9%	4.8%	9.7%	3.7%	2.1%	5.9%
Stayed the same	63.5%	76.3%	62.4%	67.9%	73.9%	59.4%	60.1%	64.0%	69.2%	62.1%
Decreased	17.6%	14.6%	17.8%	14.1%	16.2%	26.4%	16.7%	12.0%	24.6%	15.4%
Don't know	13.9%	5.9%	14.6%	16.4%	5.0%	9.4%	13.5%	20.3%	4.1%	16.6%
Number of surveys	659	343	316	69	333	109	65	77	193	460

Over these same years, do you feel that the following problems have increased, decreased or remained about the same on the lake you use most?
Level of fish contamination

Figures are column percents Amount	Total	Respondent origin		Lake region used most					Riparian owner	
		NE	Not NE	Northwest	Northeast	Central	South	Metro	Yes	No
Increased	19.8%	15.7%	20.2%	12.0%	15.6%	11.9%	36.0%	22.3%	23.5%	18.7%
Stayed the same	35.6%	42.6%	35.0%	38.9%	43.6%	46.2%	26.2%	24.2%	37.0%	35.3%
Decreased	3.2%	4.2%	3.1%	5.4%	2.2%	2.7%	3.0%	3.0%	6.9%	2.1%
Don't know	41.3%	37.5%	41.7%	43.7%	38.6%	39.1%	34.8%	50.5%	32.5%	43.9%
Number of surveys	644	337	307	69	328	102	62	76	189	448

Over these same years, do you feel that the following problems have increased, decreased or remained about the same on the lake you use most?
Presence of exotic species (such as Eurasian water milfoil, purple loosestrife, etc.)

Figures are column percents Amount	Total	Respondent origin		Lake region used most					Riparian owner	
		NE	Not NE	Northwest	Northeast	Central	South	Metro	Yes	No
Increased	24.6%	12.3%	25.7%	12.6%	11.9%	30.1%	23.3%	37.8%	22.0%	25.3%
Stayed the same	24.8%	29.4%	24.4%	33.8%	31.7%	27.8%	25.7%	10.2%	32.1%	22.6%
Decreased	2.2%	2.4%	2.1%	6.7%	5.9%	.0%	.0%	1.0%	7.0%	.8%
Don't know	48.5%	55.9%	47.8%	46.9%	50.5%	42.1%	51.0%	51.1%	38.8%	51.3%
Number of surveys	640	336	304	68	327	101	61	75	187	446

In your opinion, how much of an impact have each of the following had on the water quality of the lake you use most?
Septic systems around the lake

Figures are column percents Impact	Total	Respondent origin		Lake region used most					Riparian owner	
		NE	Not NE	Northwest	Northeast	Central	South	Metro	Yes	No
Great impact	14.6%	16.3%	14.4%	14.9%	15.0%	19.7%	16.6%	6.3%	18.0%	13.8%
Moderate impact	22.2%	19.1%	22.4%	24.7%	19.7%	24.0%	23.2%	20.3%	23.4%	21.4%
Slight impact	15.9%	21.8%	15.3%	15.2%	21.6%	21.5%	11.9%	9.9%	18.0%	15.1%
No impact	9.3%	13.1%	8.9%	8.3%	13.9%	11.3%	6.5%	7.0%	12.7%	8.1%
Doesn't apply	4.7%	3.5%	4.8%	5.0%	3.2%	1.0%	3.6%	11.0%	2.3%	5.4%
Don't know	33.4%	26.2%	34.1%	31.9%	26.7%	22.5%	38.2%	45.7%	25.6%	36.1%
Number of surveys	647	340	307	70	329	103	60	74	189	451

In your opinion, how much of an impact have each of the following had on the water quality of the lake you use most?
Aquatic plant (weed) removal

Figures are column percents Impact	Total	Respondent origin		Lake region used most					Riparian owner	
		NE	Not NE	Northwest	Northeast	Central	South	Metro	Yes	No
Great impact	7.5%	4.7%	7.8%	1.4%	2.6%	10.2%	14.4%	6.4%	8.7%	6.6%
Moderate impact	16.8%	9.9%	17.4%	22.6%	5.4%	20.6%	11.6%	20.8%	13.9%	17.9%
Slight impact	15.8%	20.0%	15.4%	16.8%	25.8%	17.3%	11.9%	10.4%	20.5%	14.6%
No impact	14.6%	19.8%	14.2%	13.8%	22.1%	14.9%	14.3%	10.3%	20.4%	12.7%
Doesn't apply	5.6%	9.6%	5.3%	8.2%	5.0%	4.8%	8.0%	3.2%	9.4%	4.5%
Don't know	39.6%	35.9%	40.0%	37.3%	39.1%	32.2%	39.8%	48.9%	27.1%	43.6%
Number of surveys	640	337	303	69	325	103	59	74	190	443

In your opinion, how much of an impact have each of the following had on the water quality of the lake you use most?
Shoreland vegetation removal

Figures are column percents Impact	Total	Respondent origin		Lake region used most					Riparian owner	
		NE	Not NE	Northwest	Northeast	Central	South	Metro	Yes	No
Great impact	7.5%	2.6%	8.0%	9.4%	1.4%	7.8%	12.4%	5.5%	6.4%	7.3%
Moderate impact	17.4%	16.1%	17.5%	13.7%	15.8%	22.0%	19.1%	15.0%	15.9%	18.0%
Slight impact	16.9%	14.9%	17.0%	23.5%	19.0%	16.0%	9.7%	19.0%	19.1%	16.4%
No impact	15.9%	25.9%	15.0%	12.4%	24.0%	13.1%	17.5%	13.8%	25.3%	13.0%
Doesn't apply	4.8%	7.0%	4.6%	6.9%	5.1%	5.6%	6.0%	1.1%	6.9%	4.2%
Don't know	37.6%	33.4%	37.9%	34.2%	34.7%	35.4%	35.3%	45.6%	26.5%	41.0%
Number of surveys	637	337	300	68	326	103	59	72	187	443

In your opinion, how much of an impact have each of the following had on the water quality of the lake you use most?
Lawn fertilizers and chemicals

Figures are column percents Impact	Total	Respondent origin		Lake region used most					Riparian owner	
		NE	Not NE	Northwest	Northeast	Central	South	Metro	Yes	No
Great impact	25.0%	12.8%	26.0%	18.8%	13.4%	26.7%	25.4%	35.1%	21.4%	26.0%
Moderate impact	17.7%	12.3%	18.1%	14.1%	17.3%	13.8%	21.4%	22.0%	16.5%	17.9%
Slight impact	15.4%	19.2%	15.1%	17.9%	14.9%	17.3%	16.2%	12.1%	20.5%	14.1%
No impact	8.1%	14.2%	7.6%	10.8%	14.6%	9.8%	5.4%	1.0%	12.6%	6.6%
Doesn't apply	1.4%	5.6%	1.0%	2.8%	2.9%	1.0%	1.2%	.0%	2.5%	1.0%
Don't know	32.5%	35.8%	32.2%	35.6%	37.0%	31.5%	30.3%	29.8%	26.4%	34.3%
Number of surveys	647	340	307	69	328	103	61	75	188	452

In your opinion, how much of an impact have each of the following had on the water quality of the lake you use most?
Urban, road, or parking lot runoff

Figures are column percents Impact	Total	Respondent origin		Lake region used most					Riparian owner	
		NE	Not NE	Northwest	Northeast	Central	South	Metro	Yes	No
Great impact	13.4%	7.4%	14.0%	5.3%	12.0%	15.9%	12.2%	18.4%	12.4%	13.6%
Moderate impact	15.6%	11.0%	16.0%	21.4%	11.1%	11.3%	10.3%	24.6%	12.1%	16.8%
Slight impact	20.1%	17.8%	20.3%	17.9%	23.4%	22.9%	18.1%	19.6%	19.3%	20.3%
No impact	13.8%	26.1%	12.7%	13.3%	23.8%	14.1%	17.7%	4.2%	20.5%	11.7%
Doesn't apply	4.0%	9.9%	3.4%	5.5%	5.3%	3.7%	3.6%	.0%	7.5%	2.9%
Don't know	33.1%	27.8%	33.6%	36.7%	24.5%	32.1%	38.2%	33.2%	28.2%	34.7%
Number of surveys	644	337	307	69	327	102	60	76	189	448

In your opinion, how much of an impact have each of the following had on the water quality of the lake you use most?
Soil erosion from home sites

Figures are column percents Impact	Total	Respondent origin		Lake region used most					Riparian owner	
		NE	Not NE	Northwest	Northeast	Central	South	Metro	Yes	No
Great impact	8.0%	3.6%	8.4%	3.8%	5.1%	8.7%	11.2%	9.6%	5.9%	8.4%
Moderate impact	14.1%	12.2%	14.3%	17.9%	14.5%	10.9%	10.7%	18.6%	17.2%	13.3%
Slight impact	24.3%	26.7%	24.1%	20.9%	27.3%	31.9%	18.2%	22.9%	23.4%	24.6%
No impact	19.1%	24.9%	18.6%	19.2%	29.8%	15.8%	21.1%	14.4%	23.6%	17.7%
Doesn't apply	4.0%	6.1%	3.8%	2.7%	3.3%	5.2%	2.4%	2.9%	4.2%	4.0%
Don't know	30.5%	26.5%	30.8%	35.4%	20.0%	27.6%	36.3%	31.6%	25.7%	31.9%
Number of surveys	638	335	303	69	325	102	59	74	189	442

In your opinion, how much of an impact have each of the following had on the water quality of the lake you use most?
Soil erosion from farms and fields

Figures are column percents Impact	Total	Respondent origin		Lake region used most					Riparian owner	
		NE	Not NE	Northwest	Northeast	Central	South	Metro	Yes	No
Great impact	11.9%	3.4%	12.6%	14.7%	11.0%	13.4%	17.3%	4.3%	10.0%	12.6%
Moderate impact	14.1%	4.8%	14.9%	16.3%	8.0%	7.1%	20.5%	17.6%	12.7%	14.3%
Slight impact	14.2%	13.0%	14.3%	12.7%	11.4%	19.8%	17.5%	8.7%	22.5%	11.9%
No impact	18.7%	40.0%	16.9%	18.4%	41.1%	17.8%	8.9%	15.1%	20.1%	18.2%
Doesn't apply	11.2%	16.5%	10.8%	4.3%	12.3%	9.6%	1.2%	28.0%	8.3%	12.2%
Don't know	29.8%	22.3%	30.5%	33.7%	16.2%	32.3%	34.6%	26.2%	26.4%	30.8%
Number of surveys	640	334	306	69	323	103	61	73	188	446

In your opinion, how much of an impact have each of the following had on the water quality of the lake you use most?
Livestock manure

Figures are column percents Impact	Total	Respondent origin		Lake region used most					Riparian owner	
		NE	Not NE	Northwest	Northeast	Central	South	Metro	Yes	No
Great impact	11.3%	2.9%	12.0%	13.0%	9.2%	10.6%	21.4%	3.3%	12.1%	11.1%
Moderate impact	10.1%	5.9%	10.5%	13.8%	4.9%	5.4%	16.0%	10.4%	9.6%	10.3%
Slight impact	12.0%	8.3%	12.3%	12.5%	14.1%	15.6%	7.9%	10.5%	17.1%	10.0%
No impact	22.2%	40.5%	20.6%	20.1%	41.2%	23.8%	11.3%	20.2%	23.2%	21.9%
Doesn't apply	16.0%	23.2%	15.3%	7.0%	16.2%	14.9%	5.6%	31.7%	13.9%	16.7%
Don't know	28.5%	19.3%	29.3%	33.6%	14.3%	29.7%	37.8%	24.0%	24.2%	30.0%
Number of surveys	641	337	304	69	326	103	60	73	189	446

In your opinion, how much of an impact have each of the following had on the water quality of the lake you use most?
Timber harvesting

Figures are column percents Impact	Total	Respondent origin		Lake region used most					Riparian owner	
		NE	Not NE	Northwest	Northeast	Central	South	Metro	Yes	No
Great impact	4.9%	5.4%	4.9%	6.5%	7.5%	4.6%	4.4%	3.3%	8.2%	4.0%
Moderate impact	9.3%	7.1%	9.4%	18.8%	17.2%	6.3%	4.4%	5.4%	6.8%	10.1%
Slight impact	11.4%	18.4%	10.8%	8.6%	17.0%	16.0%	7.1%	8.2%	13.6%	10.5%
No impact	26.9%	35.2%	26.2%	17.6%	37.4%	29.3%	23.9%	27.1%	34.2%	24.4%
Doesn't apply	19.8%	14.2%	20.3%	11.1%	9.5%	15.7%	25.9%	33.5%	17.3%	20.8%
Don't know	27.7%	19.8%	28.4%	37.4%	11.4%	28.1%	34.2%	22.6%	20.0%	30.2%
Number of surveys	637	335	302	69	323	102	59	74	187	444

In your opinion, how much of an impact have each of the following had on the water quality of the lake you use most?
Exhaust and fuel leakage from motorized watercraft

Figures are column percents Impact	Total	Respondent origin		Lake region used most					Riparian owner	
		NE	Not NE	Northwest	Northeast	Central	South	Metro	Yes	No
Great impact	10.5%	11.7%	10.4%	9.2%	6.6%	11.6%	6.8%	15.5%	11.8%	9.7%
Moderate impact	22.0%	19.8%	22.2%	28.6%	23.1%	21.2%	19.1%	21.4%	18.0%	23.5%
Slight impact	24.0%	30.5%	23.4%	25.1%	38.9%	27.0%	24.6%	11.1%	26.8%	23.4%
No impact	10.3%	15.2%	9.8%	8.6%	18.3%	9.8%	9.8%	7.0%	14.9%	8.4%
Doesn't apply	6.5%	2.9%	6.9%	1.4%	1.5%	4.2%	2.4%	20.5%	5.2%	7.0%
Don't know	26.7%	19.9%	27.3%	27.0%	11.5%	26.3%	37.3%	24.5%	23.3%	28.0%
Number of surveys	644	339	305	69	328	103	60	74	190	447

In your opinion, how much of an impact have each of the following had on the water quality of the lake you use most?
Municipal waste water discharges

Figures are column percents Impact	Total	Respondent origin		Lake region used most					Riparian owner	
		NE	Not NE	Northwest	Northeast	Central	South	Metro	Yes	No
Great impact	7.3%	6.3%	7.4%	9.3%	3.3%	4.6%	12.0%	6.5%	7.2%	7.1%
Moderate impact	10.0%	7.5%	10.2%	13.0%	9.1%	6.4%	14.1%	9.4%	7.6%	10.8%
Slight impact	9.1%	7.8%	9.2%	9.3%	7.2%	10.1%	4.8%	13.4%	7.4%	9.3%
No impact	20.0%	26.8%	19.4%	16.7%	35.3%	21.5%	20.1%	11.3%	25.0%	18.2%
Doesn't apply	14.1%	27.2%	12.9%	15.1%	18.3%	16.8%	10.1%	12.0%	19.4%	12.7%
Don't know	39.5%	24.4%	40.8%	36.5%	26.9%	40.6%	38.9%	47.5%	33.4%	41.8%
Number of surveys	646	340	306	70	329	103	61	73	189	450

In your opinion, how much of an impact have each of the following had on the water quality of the lake you use most?
Commercial and industrial waste water discharges

Figures are column percents Impact	Total	Respondent origin		Lake region used most					Riparian owner	
		NE	Not NE	Northwest	Northeast	Central	South	Metro	Yes	No
Great impact	7.6%	5.6%	7.8%	6.0%	6.2%	6.4%	13.2%	5.4%	4.7%	8.5%
Moderate impact	8.5%	5.4%	8.8%	20.0%	4.6%	2.7%	10.4%	8.1%	3.1%	9.9%
Slight impact	7.8%	7.2%	7.8%	7.4%	7.2%	10.0%	4.5%	9.2%	8.5%	7.6%
No impact	21.8%	25.7%	21.4%	10.8%	32.7%	25.2%	21.6%	19.2%	28.8%	19.2%
Doesn't apply	15.4%	30.2%	14.1%	17.3%	19.6%	19.2%	10.4%	12.2%	23.9%	13.0%
Don't know	39.0%	25.9%	40.2%	38.6%	29.7%	36.5%	39.9%	45.9%	31.0%	41.7%
Number of surveys	642	340	302	68	329	103	59	73	189	447

In your opinion, how much of an impact have each of the following had on the water quality of the lake you use most?
Damage to aquatic plants (weeds) and lake bottom by watercraft

Figures are column percents Impact	Total	Respondent origin		Lake region used most					Riparian owner	
		NE	Not NE	Northwest	Northeast	Central	South	Metro	Yes	No
Great impact	5.1%	4.0%	5.2%	2.7%	2.3%	2.7%	10.0%	6.4%	2.5%	5.7%
Moderate impact	14.3%	8.6%	14.8%	19.6%	12.7%	14.1%	8.4%	17.6%	15.1%	14.3%
Slight impact	18.8%	21.5%	18.6%	17.7%	19.6%	30.6%	15.9%	9.1%	19.3%	18.6%
No impact	16.6%	34.9%	15.0%	15.5%	39.6%	12.5%	14.7%	9.4%	27.2%	12.9%
Doesn't apply	4.7%	3.5%	4.8%	2.8%	3.5%	1.8%	2.4%	12.8%	4.2%	5.0%
Don't know	40.4%	27.5%	41.5%	41.8%	22.3%	38.3%	48.6%	44.8%	31.7%	43.5%
Number of surveys	637	334	303	70	323	103	59	74	189	441

In your opinion, how much of an impact have each of the following had on the water quality of the lake you use most?
Exotic species invasions (such as Eurasian water milfoil)

Figures are column percents Impact	Total	Respondent origin		Lake region used most					Riparian owner	
		NE	Not NE	Northwest	Northeast	Central	South	Metro	Yes	No
Great impact	11.8%	4.0%	12.5%	2.9%	8.3%	7.3%	16.4%	22.2%	9.4%	12.6%
Moderate impact	12.3%	5.4%	12.9%	9.7%	8.0%	14.2%	13.3%	14.5%	11.3%	12.7%
Slight impact	10.4%	15.8%	9.9%	6.0%	13.0%	18.4%	8.1%	5.2%	11.6%	9.8%
No impact	11.8%	19.7%	11.1%	20.0%	20.2%	9.2%	12.0%	3.2%	21.4%	8.4%
Doesn't apply	4.8%	8.3%	4.5%	2.9%	7.7%	5.4%	5.9%	2.8%	8.3%	3.7%
Don't know	48.9%	46.7%	49.1%	58.6%	42.8%	45.5%	44.3%	52.1%	37.8%	52.7%
Number of surveys	641	337	304	67	326	103	61	75	188	447

In your opinion, how much of an impact have each of the following had on the water quality of the lake you use most?
Regulated water levels (i.e. reservoirs)

Figures are column percents Impact	Total	Respondent origin		Lake region used most					Riparian owner	
		NE	Not NE	Northwest	Northeast	Central	South	Metro	Yes	No
Great impact	5.8%	7.3%	5.7%	7.0%	7.3%	7.0%	3.2%	5.2%	9.5%	4.7%
Moderate impact	8.9%	13.4%	8.5%	18.8%	12.6%	4.6%	10.3%	3.2%	10.5%	8.4%
Slight impact	12.6%	18.2%	12.1%	7.6%	12.8%	17.7%	5.8%	16.8%	11.1%	12.8%
No impact	18.7%	18.6%	18.7%	15.9%	22.6%	17.0%	23.2%	16.1%	28.3%	15.7%
Doesn't apply	13.5%	21.6%	12.8%	4.2%	21.2%	14.5%	12.3%	16.3%	11.1%	14.3%
Don't know	40.6%	21.0%	42.4%	46.4%	23.6%	39.2%	45.3%	42.3%	29.4%	44.0%
Number of surveys	642	339	303	69	328	102	60	74	189	447

In your opinion, how much of an impact have each of the following had on the water quality of the lake you use most?
Agricultural fertilizers and chemicals

Figures are column percents Impact	Total	Respondent origin		Lake region used most					Riparian owner	
		NE	Not NE	Northwest	Northeast	Central	South	Metro	Yes	No
Great impact	17.7%	5.9%	18.7%	11.4%	12.3%	16.9%	33.1%	13.1%	15.5%	18.3%
Moderate impact	12.8%	7.4%	13.2%	26.5%	6.1%	7.2%	15.7%	11.3%	16.3%	11.6%
Slight impact	14.9%	11.2%	15.2%	7.1%	13.5%	17.6%	14.5%	19.6%	12.8%	15.7%
No impact	13.2%	22.8%	12.4%	14.0%	25.1%	16.4%	7.9%	6.1%	14.6%	12.7%
Doesn't apply	9.1%	19.9%	8.1%	8.0%	14.2%	4.5%	1.3%	19.1%	8.1%	9.5%
Don't know	32.4%	32.9%	32.3%	32.9%	28.8%	37.5%	27.6%	30.7%	32.8%	32.3%
Number of surveys	648	341	307	69	330	103	60	76	190	451

In your opinion, how much of an impact have each of the following had on the scenic quality of the lake you use most?
Timber harvesting

Figures are column percents Impact	Total	Respondent origin		Lake region used most					Riparian owner	
		NE	Not NE	Northwest	Northeast	Central	South	Metro	Yes	No
Great impact	6.3%	6.3%	6.3%	8.2%	3.4%	7.8%	6.6%	2.1%	5.4%	6.6%
Moderate impact	10.3%	13.4%	10.0%	15.2%	18.3%	13.8%	.0%	7.3%	10.0%	10.4%
Slight impact	12.1%	18.8%	11.5%	11.8%	27.8%	9.8%	11.7%	6.0%	13.4%	11.5%
No impact	31.5%	38.9%	30.8%	33.6%	28.4%	31.6%	34.0%	30.6%	40.7%	28.7%
Doesn't apply	26.5%	15.2%	27.5%	11.3%	14.8%	26.7%	32.0%	41.3%	21.6%	27.9%
Don't know	13.5%	7.4%	14.0%	19.8%	7.3%	10.3%	15.7%	12.7%	8.9%	14.9%
Number of surveys	646	341	305	68	330	104	61	74	190	450

In your opinion, how much of an impact have each of the following had on the scenic quality of the lake you use most?
Cabin or home development

Figures are column percents Impact	Total	Respondent origin		Lake region used most					Riparian owner	
		NE	Not NE	Northwest	Northeast	Central	South	Metro	Yes	No
Great impact	18.9%	17.1%	19.1%	12.4%	18.0%	21.4%	21.1%	20.9%	15.4%	19.8%
Moderate impact	26.3%	22.0%	26.7%	30.6%	31.9%	27.3%	16.2%	24.4%	30.2%	25.4%
Slight impact	23.8%	29.9%	23.2%	36.9%	24.4%	27.4%	22.0%	12.4%	31.4%	21.7%
No impact	14.1%	21.0%	13.5%	10.8%	15.8%	13.0%	20.0%	11.9%	12.3%	14.1%
Doesn't apply	8.0%	4.6%	8.3%	2.8%	7.5%	4.2%	5.8%	18.9%	3.0%	9.5%
Don't know	9.0%	5.2%	9.3%	6.5%	2.3%	6.8%	14.9%	11.6%	7.6%	9.5%
Number of surveys	649	341	308	70	330	103	61	75	191	452

In your opinion, how much of an impact have each of the following had on the scenic quality of the lake you use most?
Installation of large shoreline structures (such as docks & boat lifts)

Figures are column percents Impact	Total	Respondent origin		Lake region used most					Riparian owner	
		NE	Not NE	Northwest	Northeast	Central	South	Metro	Yes	No
Great impact	10.5%	7.4%	10.8%	.0%	13.7%	13.8%	14.0%	10.3%	4.5%	12.1%
Moderate impact	19.2%	14.4%	19.6%	31.3%	14.0%	21.3%	14.6%	12.4%	26.7%	17.1%
Slight impact	25.6%	27.8%	25.4%	24.9%	32.2%	28.8%	24.6%	20.0%	27.8%	25.2%
No impact	24.6%	35.4%	23.6%	26.7%	29.1%	24.2%	23.3%	22.8%	28.7%	22.9%
Doesn't apply	9.2%	8.6%	9.2%	2.8%	7.9%	5.2%	6.9%	22.0%	5.7%	10.3%
Don't know	10.9%	6.4%	11.3%	14.2%	3.1%	6.8%	16.7%	12.7%	6.8%	12.3%
Number of surveys	643	339	304	68	328	104	59	74	190	447

In your opinion, how much of an impact have each of the following had on the scenic quality of the lake you use most?
Resort and marina development

Figures are column percents Impact	Total	Respondent origin		Lake region used most					Riparian owner	
		NE	Not NE	Northwest	Northeast	Central	South	Metro	Yes	No
Great impact	8.5%	3.8%	9.0%	5.6%	11.8%	8.9%	9.3%	8.0%	7.2%	8.7%
Moderate impact	11.4%	14.5%	11.2%	14.5%	11.3%	9.6%	10.4%	10.1%	6.6%	13.0%
Slight impact	19.6%	20.2%	19.6%	27.9%	21.2%	25.1%	16.8%	9.3%	17.7%	20.1%
No impact	27.4%	29.2%	27.3%	26.6%	28.8%	29.0%	30.9%	23.3%	38.7%	24.0%
Doesn't apply	21.9%	27.1%	21.4%	10.0%	22.5%	19.8%	13.7%	40.6%	20.0%	22.6%
Don't know	11.1%	5.1%	11.6%	15.4%	4.3%	7.6%	18.9%	8.8%	9.7%	11.6%
Number of surveys	645	340	305	69	329	104	60	75	190	449

In your opinion, how much of an impact have each of the following had on the scenic quality of the lake you use most?
Industrial and commercial development

Figures are column percents Impact	Total	Respondent origin		Lake region used most					Riparian owner	
		NE	Not NE	Northwest	Northeast	Central	South	Metro	Yes	No
Great impact	6.7%	5.8%	6.8%	2.8%	4.8%	10.1%	9.2%	2.1%	4.7%	7.0%
Moderate impact	7.9%	5.9%	8.1%	10.6%	9.5%	3.5%	9.2%	9.2%	5.9%	8.6%
Slight impact	13.6%	11.5%	13.8%	15.0%	12.5%	13.4%	20.4%	8.1%	11.7%	14.3%
No impact	31.9%	31.1%	32.0%	33.1%	32.3%	33.2%	29.7%	31.6%	36.3%	30.2%
Doesn't apply	25.3%	36.5%	24.3%	16.5%	28.1%	28.3%	15.6%	36.8%	28.4%	24.7%
Don't know	14.6%	9.3%	15.1%	22.1%	12.8%	11.5%	15.8%	12.1%	13.1%	15.2%
Number of surveys	641	337	304	70	326	103	60	73	189	446

In your opinion, how much of an impact have each of the following had on the scenic quality of the lake you use most?
Tree and shrub removal in shoreland areas

Figures are column percents Impact	Total	Respondent origin		Lake region used most					Riparian owner	
		NE	Not NE	Northwest	Northeast	Central	South	Metro	Yes	No
Great impact	7.0%	6.4%	7.1%	1.4%	6.9%	11.4%	9.7%	4.2%	2.8%	8.1%
Moderate impact	15.7%	10.9%	16.1%	21.2%	19.2%	13.9%	8.9%	15.4%	15.4%	15.9%
Slight impact	25.5%	25.2%	25.5%	26.3%	26.9%	27.3%	24.4%	23.2%	34.9%	22.9%
No impact	25.4%	34.4%	24.6%	24.7%	30.1%	25.5%	22.2%	26.7%	27.8%	24.2%
Doesn't apply	6.1%	7.6%	6.0%	5.7%	9.0%	4.6%	6.6%	6.4%	4.7%	6.6%
Don't know	20.3%	15.5%	20.7%	20.7%	7.9%	17.2%	28.1%	24.0%	14.4%	22.2%
Number of surveys	643	337	306	70	327	102	61	74	190	447

In your opinion, how much of an impact have each of the following had on the scenic quality of the lake you use most?
Aquatic plant (weed) removal

Figures are column percents Impact	Total	Respondent origin		Lake region used most					Riparian owner	
		NE	Not NE	Northwest	Northeast	Central	South	Metro	Yes	No
Great impact	4.8%	3.4%	4.9%	1.4%	3.5%	2.7%	9.9%	6.2%	6.3%	4.4%
Moderate impact	13.2%	6.9%	13.8%	13.7%	10.4%	19.0%	5.9%	15.2%	10.5%	13.9%
Slight impact	15.4%	17.7%	15.2%	13.1%	17.5%	17.9%	11.4%	17.2%	16.6%	15.1%
No impact	23.9%	34.2%	23.0%	29.7%	32.7%	25.3%	27.6%	10.2%	31.0%	21.3%
Doesn't apply	7.3%	11.6%	6.9%	4.4%	9.3%	6.5%	7.8%	6.3%	8.7%	6.9%
Don't know	35.4%	26.2%	36.2%	37.7%	26.5%	28.6%	37.4%	44.9%	26.8%	38.4%
Number of surveys	641	338	303	68	327	103	60	74	191	444

In your opinion, how much of an impact have each of the following had on the scenic quality of the lake you use most?
Building roads close to shore

Figures are column percents Impact	Total	Respondent origin		Lake region used most					Riparian owner	
		NE	Not NE	Northwest	Northeast	Central	South	Metro	Yes	No
Great impact	7.9%	5.1%	8.2%	8.0%	6.1%	7.9%	11.6%	6.3%	7.6%	7.8%
Moderate impact	13.2%	10.5%	13.5%	11.3%	16.7%	14.1%	4.9%	18.3%	10.4%	14.2%
Slight impact	19.0%	17.9%	19.1%	9.4%	21.9%	21.3%	17.2%	21.4%	15.5%	20.3%
No impact	26.4%	35.0%	25.6%	30.3%	34.1%	24.2%	31.7%	18.0%	31.8%	24.4%
Doesn't apply	14.6%	20.1%	14.2%	11.5%	15.4%	17.7%	12.7%	15.3%	18.0%	13.8%
Don't know	18.8%	11.3%	19.5%	29.6%	5.8%	14.7%	21.9%	20.8%	16.7%	19.6%
Number of surveys	638	338	300	68	327	102	58	74	190	442

In your opinion, how much of an impact have each of the following had on the scenic quality of the lake you use most?
Building utility lines close to shore

Figures are column percents Impact	Total	Respondent origin		Lake region used most					Riparian owner	
		NE	Not NE	Northwest	Northeast	Central	South	Metro	Yes	No
Great impact	5.9%	4.0%	6.1%	10.3%	3.9%	7.8%	4.4%	3.1%	5.2%	5.8%
Moderate impact	9.9%	6.3%	10.3%	9.3%	14.7%	10.4%	9.2%	8.1%	6.4%	11.1%
Slight impact	13.1%	16.6%	12.8%	8.0%	19.5%	15.0%	12.4%	9.1%	11.2%	13.8%
No impact	28.7%	36.0%	28.1%	26.2%	34.3%	30.3%	31.1%	24.3%	39.0%	25.3%
Doesn't apply	16.3%	22.3%	15.8%	14.1%	18.8%	15.8%	14.5%	19.4%	19.0%	15.7%
Don't know	26.0%	14.9%	27.0%	32.2%	8.8%	20.8%	28.4%	36.0%	19.3%	28.3%
Number of surveys	641	338	303	69	327	103	60	74	189	446

In your opinion, how much of an impact have each of the following had on the scenic quality of the lake you use most?
Re-shaping of shoreline

Figures are column percents Impact	Total	Respondent origin		Lake region used most					Riparian owner	
		NE	Not NE	Northwest	Northeast	Central	South	Metro	Yes	No
Great impact	8.0%	3.5%	8.4%	7.9%	1.9%	9.6%	12.9%	5.9%	5.3%	8.6%
Moderate impact	8.0%	9.1%	7.9%	11.6%	10.0%	5.6%	7.0%	5.3%	7.4%	8.3%
Slight impact	14.5%	14.1%	14.6%	13.0%	14.3%	20.0%	12.2%	12.3%	16.3%	14.1%
No impact	23.4%	33.0%	22.5%	24.9%	34.2%	23.9%	23.0%	16.2%	27.1%	21.8%
Doesn't apply	19.1%	28.1%	18.3%	11.9%	22.8%	18.5%	16.7%	25.8%	23.3%	18.0%
Don't know	27.1%	12.1%	28.4%	30.6%	16.8%	22.4%	28.2%	34.6%	20.7%	29.3%
Number of surveys	643	338	305	69	327	103	61	74	191	446

In your opinion, how much of an impact have each of the following had on the scenic quality of the lake you use most?
Building retaining walls

Figures are column percents Impact	Total	Respondent origin		Lake region used most					Riparian owner	
		NE	Not NE	Northwest	Northeast	Central	South	Metro	Yes	No
Great impact	5.2%	4.6%	5.2%	7.9%	2.4%	4.2%	9.7%	2.1%	2.3%	6.1%
Moderate impact	8.3%	6.4%	8.5%	5.6%	10.6%	12.2%	2.3%	9.1%	5.6%	8.9%
Slight impact	19.0%	15.6%	19.3%	23.3%	17.5%	20.2%	14.8%	17.5%	24.0%	17.6%
No impact	25.8%	36.9%	24.8%	19.7%	34.6%	30.6%	28.3%	18.4%	32.8%	23.3%
Doesn't apply	15.7%	24.5%	14.9%	10.7%	19.0%	13.4%	19.8%	17.2%	13.4%	16.6%
Don't know	26.0%	12.0%	27.3%	32.8%	15.9%	19.3%	25.0%	35.6%	21.9%	27.5%
Number of surveys	644	338	306	69	327	103	61	74	191	447

Do you support or oppose the following actions to address any problems on the lake you use most?
Stricter septic system regulations to improve water quality

Figures are column percents Response	Total	Respondent origin		Lake region used most					Riparian owner	
		NE	Not NE	Northwest	Northeast	Central	South	Metro	Yes	No
Support	68.2%	60.3%	68.9%	66.1%	62.2%	70.8%	72.6%	66.5%	64.5%	68.9%
Neutral	17.4%	26.0%	16.7%	20.6%	25.7%	11.8%	17.3%	17.1%	19.1%	17.1%
Oppose	6.3%	8.5%	6.1%	6.9%	7.8%	9.8%	2.3%	4.8%	11.2%	5.0%
Don't know	8.0%	5.1%	8.3%	6.4%	4.3%	7.7%	7.8%	11.6%	5.3%	9.0%
Number of surveys	658	342	316	70	331	107	64	77	193	460

Do you support or oppose the following actions to address any problems on the lake you use most?
Allowing individuals more flexibility to make decisions about their own land

Figures are column percents Response	Total	Respondent origin		Lake region used most					Riparian owner	
		NE	Not NE	Northwest	Northeast	Central	South	Metro	Yes	No
Support	29.5%	45.6%	28.1%	44.9%	42.1%	23.5%	20.8%	24.9%	40.3%	25.9%
Neutral	39.0%	35.8%	39.3%	31.0%	31.9%	44.4%	36.9%	47.0%	34.2%	41.0%
Oppose	23.8%	14.5%	24.6%	13.9%	23.9%	27.1%	33.4%	17.6%	19.6%	24.9%
Don't know	7.6%	4.2%	7.9%	10.1%	2.0%	5.0%	8.9%	10.5%	6.0%	8.2%
Number of surveys	657	341	316	70	330	107	64	77	194	457

Do you support or oppose the following actions to address any problems on the lake you use most?
More shoreline property owner education regarding impacts on water quality

Figures are column percents Response	Total	Respondent origin		Lake region used most					Riparian owner	
		NE	Not NE	Northwest	Northeast	Central	South	Metro	Yes	No
Support	79.2%	75.0%	79.6%	83.9%	79.6%	79.3%	74.9%	79.4%	83.7%	77.6%
Neutral	15.1%	21.6%	14.6%	12.4%	15.1%	15.2%	18.5%	14.8%	13.0%	16.0%
Oppose	1.2%	1.2%	1.2%	.0%	4.1%	2.3%	.0%	.0%	2.2%	.9%
Don't know	4.5%	2.3%	4.7%	3.7%	1.2%	3.2%	6.7%	5.9%	1.1%	5.6%
Number of surveys	653	339	314	70	328	107	64	77	193	455

Do you support or oppose the following actions to address any problems on the lake you use most?
Stricter zoning regulations for shoreline development to maintain natural shoreline character

Figures are column percents Response	Total	Respondent origin		Lake region used most					Riparian owner	
		NE	Not NE	Northwest	Northeast	Central	South	Metro	Yes	No
Support	58.4%	45.4%	59.5%	60.9%	58.0%	56.8%	59.5%	57.3%	52.7%	59.7%
Neutral	25.2%	28.5%	24.9%	22.7%	22.6%	24.4%	26.4%	28.7%	31.2%	23.5%
Oppose	10.8%	21.4%	9.9%	12.6%	15.0%	13.8%	4.5%	9.3%	13.0%	10.3%
Don't know	5.7%	4.8%	5.8%	3.7%	4.4%	4.9%	9.7%	4.6%	3.2%	6.5%
Number of surveys	657	340	317	70	329	107	64	78	194	457

Do you support or oppose the following actions to address any problems on the lake you use most?
More enforcement of existing shoreland protection laws

Figures are column percents Response	Total	Respondent origin		Lake region used most					Riparian owner	
		NE	Not NE	Northwest	Northeast	Central	South	Metro	Yes	No
Support	60.1%	44.8%	61.4%	60.2%	52.0%	57.5%	65.9%	61.8%	50.4%	62.7%
Neutral	27.3%	33.2%	26.8%	28.6%	25.9%	28.6%	24.1%	29.7%	33.5%	25.8%
Oppose	7.3%	17.1%	6.4%	7.4%	17.7%	8.2%	2.2%	4.7%	12.7%	5.4%
Don't know	5.4%	4.9%	5.4%	3.8%	4.5%	5.8%	7.7%	3.7%	3.3%	6.0%
Number of surveys	651	339	312	68	328	106	64	77	191	455

Do you support or oppose the following actions to address any problems on the lake you use most?
Awards program for shoreland property owners who minimize their impacts

Figures are column percents Response	Total	Respondent origin		Lake region used most					Riparian owner	
		NE	Not NE	Northwest	Northeast	Central	South	Metro	Yes	No
Support	54.5%	47.3%	55.1%	51.6%	49.0%	50.8%	56.9%	61.7%	43.3%	57.8%
Neutral	28.6%	38.9%	27.7%	36.2%	35.4%	33.4%	25.4%	17.6%	39.5%	25.1%
Oppose	8.6%	9.2%	8.6%	2.9%	13.1%	9.1%	7.6%	9.6%	11.0%	8.0%
Don't know	8.4%	4.6%	8.7%	9.3%	2.5%	6.6%	10.1%	11.0%	6.2%	9.1%
Number of surveys	654	339	315	69	329	107	64	78	193	456

Do you support or oppose the following actions to address any problems on the lake you use most?
Stricter regulations to protect shoreland trees and shrubs

Figures are column percents Response	Total	Respondent origin		Lake region used most					Riparian owner	
		NE	Not NE	Northwest	Northeast	Central	South	Metro	Yes	No
Support	57.2%	42.9%	58.4%	51.3%	57.4%	58.3%	62.9%	53.3%	46.2%	59.7%
Neutral	27.2%	32.0%	26.8%	33.7%	20.2%	27.8%	23.7%	30.8%	35.4%	25.2%
Oppose	10.4%	21.8%	9.5%	11.3%	20.6%	9.0%	4.5%	11.3%	16.2%	8.9%
Don't know	5.2%	3.3%	5.4%	3.7%	1.8%	4.9%	8.9%	4.7%	2.2%	6.2%
Number of surveys	655	338	317	69	327	107	64	78	193	456

Do you support or oppose the following actions to address any problems on the lake you use most?
Allowing more aquatic plant (weed) removal

Figures are column percents Response	Total	Respondent origin		Lake region used most					Riparian owner	
		NE	Not NE	Northwest	Northeast	Central	South	Metro	Yes	No
Support	39.5%	41.9%	39.3%	42.5%	33.1%	36.1%	37.1%	48.4%	39.1%	39.5%
Neutral	34.4%	39.1%	34.0%	25.0%	44.8%	36.9%	37.9%	29.8%	35.5%	34.2%
Oppose	13.5%	10.4%	13.8%	19.0%	15.5%	14.5%	13.8%	8.0%	19.0%	11.8%
Don't know	12.6%	8.6%	12.9%	13.5%	6.5%	12.4%	11.24%	13.8%	6.4%	14.6%
Number of surveys	654	340	314	68	329	107	64	77	193	456

Do you support or oppose the following actions to address any problems on the lake you use most?
Development of more voluntary programs for water quality protection

Figures are column percents Response	Total	Respondent origin		Lake region used most					Riparian owner	
		NE	Not NE	Northwest	Northeast	Central	South	Metro	Yes	No
Support	69.6%	64.3%	70.0%	64.6%	66.7%	74.1%	69.6%	70.4%	67.9%	69.8%
Neutral	20.4%	26.4%	19.9%	26.1%	21.4%	19.2%	18.4%	19.5%	25.3%	19.1%
Oppose	4.6%	5.4%	4.5%	2.9%	8.0%	5.0%	2.3%	4.7%	5.5%	4.4%
Don't know	5.4%	3.8%	5.6%	6.4%	3.9%	1.8%	9.7%	5.4%	1.2%	6.7%
Number of surveys	648	335	313	69	324	106	64	77	192	452

Do you support or oppose the following actions to address any problems on the lake you use most?
More farmer education about the impacts of farming practices on water quality

Figures are column percents Response	Total	Respondent origin		Lake region used most					Riparian owner	
		NE	Not NE	Northwest	Northeast	Central	South	Metro	Yes	No
Support	69.4%	58.7%	70.3%	68.1%	61.0%	71.7%	72.3%	70.5%	76.4%	67.3%
Neutral	18.7%	29.3%	17.8%	22.2%	27.3%	19.2%	12.7%	15.8%	16.4%	19.3%
Oppose	4.6%	1.8%	4.9%	5.8%	4.1%	3.2%	4.2%	6.3%	3.2%	5.1%
Don't know	7.3%	10.3%	7.0%	3.8%	7.7%	5.8%	10.9%	7.4%	4.1%	8.3%
Number of surveys	649	337	312	67	325	107	64	78	191	454

Do you support or oppose the following actions to address any problems on the lake you use most?
Increased protection for fish habitat

Figures are column percents Response	Total	Respondent origin		Lake region used most					Riparian owner	
		NE	Not NE	Northwest	Northeast	Central	South	Metro	Yes	No
Support	67.8%	69.0%	67.7%	67.8%	70.5%	71.8%	68.4%	60.1%	72.6%	66.0%
Neutral	20.9%	25.1%	20.6%	21.9%	23.0%	20.1%	14.5%	27.0%	21.0%	21.2%
Oppose	3.6%	3.9%	3.5%	2.9%	5.5%	4.0%	.0%	5.6%	5.4%	3.1%
Don't know	7.7%	1.9%	8.2%	7.4%	1.0%	4.1%	17.0%	7.4%	1.0%	9.8%
Number of surveys	654	339	315	70	326	106	64	78	193	456

Do you support or oppose the following actions to address any problems on the lake you use most?
More management for game populations

Figures are column percents Response	Total	Respondent origin		Lake region used most					Riparian owner	
		NE	Not NE	Northwest	Northeast	Central	South	Metro	Yes	No
Support	47.5%	46.6%	47.6%	47.5%	43.4%	55.0%	49.9%	38.8%	44.7%	47.9%
Neutral	36.2%	37.7%	36.1%	32.0%	38.9%	32.3%	37.9%	41.3%	38.0%	36.0%
Oppose	7.5%	11.7%	7.1%	10.1%	11.9%	6.0%	2.3%	9.6%	11.0%	6.5%
Don't know	8.8%	3.9%	9.2%	10.3%	5.8%	6.7%	9.9%	10.3%	6.3%	9.6%
Number of surveys	647	336	311	68	325	106	62	78	191	452

Do you support or oppose the following actions to address any problems on the lake you use most?
More management for non-game wildlife populations (song birds, loons)

Figures are column percents Response	Total	Respondent origin		Lake region used most					Riparian owner	
		NE	Not NE	Northwest	Northeast	Central	South	Metro	Yes	No
Support	56.3%	52.9%	56.6%	58.2%	55.9%	57.7%	56.6%	52.0%	64.4%	53.4%
Neutral	30.2%	32.9%	30.0%	18.8%	29.5%	30.8%	32.6%	37.7%	26.2%	31.7%
Oppose	7.4%	9.0%	7.3%	10.1%	12.0%	7.5%	2.2%	7.7%	7.8%	7.4%
Don't know	6.1%	5.2%	6.2%	12.9%	2.7%	4.1%	8.6%	2.7%	1.6%	7.5%
Number of surveys	652	338	314	68	326	107	64	78	191	456

Do you support or oppose the following actions to address any problems on the lake you use most?
More erosion control assistance for property owners

Figures are column percents Response	Total	Respondent origin		Lake region used most					Riparian owner	
		NE	Not NE	Northwest	Northeast	Central	South	Metro	Yes	No
Support	61.0%	59.3%	61.2%	54.4%	60.2%	61.4%	67.8%	59.9%	67.0%	58.8%
Neutral	27.8%	29.8%	27.6%	32.1%	30.6%	25.1%	24.5%	30.4%	26.2%	28.5%
Oppose	3.7%	4.5%	3.7%	4.4%	5.6%	5.9%	1.1%	2.1%	4.3%	3.6%
Don't know	7.5%	6.5%	7.6%	9.1%	3.6%	7.6%	6.6%	7.6%	2.5%	9.1%
Number of surveys	650	339	311	67	327	107	64	77	193	453

Do you support or oppose the following actions to address any problems on the lake you use most?
Motorboat size and speed limits to protect shoreland areas

Figures are column percents Response	Total	Respondent origin		Lake region used most					Riparian owner	
		NE	Not NE	Northwest	Northeast	Central	South	Metro	Yes	No
Support	66.2%	55.1%	67.2%	63.8%	60.1%	64.3%	67.8%	72.4%	70.8%	64.5%
Neutral	19.4%	25.3%	18.9%	22.7%	20.7%	18.3%	20.2%	16.9%	16.7%	20.4%
Oppose	8.9%	15.4%	8.4%	5.9%	15.1%	12.4%	5.4%	7.0%	10.0%	8.7%
Don't know	5.5%	4.2%	5.6%	7.6%	4.1%	4.9%	6.6%	3.7%	2.4%	6.4%
Number of surveys	655	341	314	68	330	106	64	78	193	458

Do you support or oppose the following actions to address any problems on the lake you use most?
Stricter controls for exotic species (such as Eurasian water milfoil)

Figures are column percents Response	Total	Respondent origin		Lake region used most					Riparian owner	
		NE	Not NE	Northwest	Northeast	Central	South	Metro	Yes	No
Support	72.4%	69.6%	72.6%	63.7%	75.3%	78.8%	63.1%	78.1%	74.5%	71.6%
Neutral	16.3%	20.2%	15.9%	20.6%	17.4%	14.5%	18.5%	13.5%	20.9%	15.0%
Oppose	1.9%	1.7%	1.9%	1.4%	2.7%	.9%	.0%	4.7%	2.0%	1.9%
Don't know	9.5%	8.5%	9.5%	14.2%	4.6%	5.8%	18.5%	3.7%	2.6%	11.5%
Number of surveys	654	340	314	69	329	107	64	77	193	458

Do you support or oppose the following actions to address any problems on the lake you use most?
More logger/forester education about the impacts of logging on lake quality

Figures are column percents Response	Total	Respondent origin		Lake region used most					Riparian owner	
		NE	Not NE	Northwest	Northeast	Central	South	Metro	Yes	No
Support	54.0%	54.7%	54.0%	56.7%	59.9%	54.9%	47.8%	53.1%	60.5%	51.9%
Neutral	28.3%	33.8%	27.8%	22.3%	30.7%	26.3%	35.7%	28.3%	26.8%	28.7%
Oppose	4.5%	5.1%	4.4%	7.1%	4.1%	3.2%	.0%	7.3%	5.4%	4.2%
Don't know	13.2%	6.4%	13.8%	14.0%	5.2%	15.6%	16.5%	11.3%	7.2%	15.1%
Number of surveys	653	338	315	69	327	107	64	78	192	457

Do you support or oppose the following actions to address any problems on the lake you use most?
More public land purchases to protect shoreland areas

Figures are column percents Response	Total	Respondent origin		Lake region used most					Riparian owner	
		NE	Not NE	Northwest	Northeast	Central	South	Metro	Yes	No
Support	46.7%	35.1%	47.7%	33.4%	34.1%	51.3%	50.5%	53.4%	29.9%	51.2%
Neutral	30.4%	30.0%	30.5%	35.6%	33.0%	27.1%	29.4%	31.5%	44.2%	26.6%
Oppose	14.0%	28.5%	12.7%	20.7%	27.7%	15.0%	5.7%	7.7%	20.6%	12.1%
Don't know	8.9%	6.4%	9.1%	10.3%	5.3%	6.6%	14.3%	7.4%	5.2%	10.1%
Number of surveys	652	339	313	69	327	107	64	77	190	458

Do you support or oppose the following actions to address any problems on the lake you use most?
Development of financial incentives for environmentally sound shoreland management

Figures are column percents Response	Total	Respondent origin		Lake region used most					Riparian owner	
		NE	Not NE	Northwest	Northeast	Central	South	Metro	Yes	No
Support	52.6%	50.4%	52.8%	47.2%	51.7%	56.2%	48.1%	56.3%	56.7%	51.2%
Neutral	30.3%	33.9%	30.0%	33.1%	31.1%	23.7%	39.9%	28.7%	32.9%	29.5%
Oppose	9.1%	10.0%	9.1%	8.2%	14.3%	11.6%	4.2%	7.6%	8.0%	9.5%
Don't know	8.0%	5.7%	8.2%	11.6%	3.0%	8.5%	7.8%	7.4%	2.3%	9.8%
Number of surveys	654	339	315	70	327	107	64	78	192	458

Do you support or oppose the following actions to address any problems on the lake you use most?
Increase minimum lot size requirements

Figures are column percents Response	Total	Respondent origin		Lake region used most					Riparian owner	
		NE	Not NE	Northwest	Northeast	Central	South	Metro	Yes	No
Support	35.4%	36.4%	35.3%	39.4%	47.9%	43.0%	26.3%	26.1%	47.4%	31.8%
Neutral	35.9%	37.8%	35.7%	37.4%	34.6%	27.9%	33.9%	33.9%	35.3%	35.8%
Oppose	16.7%	19.2%	16.5%	11.4%	12.3%	18.4%	25.0%	25.0%	11.1%	18.6%
Don't know	12.0%	6.6%	12.5%	11.8%	5.2%	10.8%	15.0%	15.0%	6.3%	13.8%
Number of surveys	649	337	312	69	325	106	78	78	191	454

Do you support or oppose the following actions to address any problems on the lake you use most?
Other

Figures are column percents Response	Total	Respondent origin		Lake region used most					Riparian owner	
		NE	Not NE	Northwest	Northeast	Central	South	Metro	Yes	No
Support	42.1%	42.0%	42.1%	62.3%	38.5%	44.5%	30.7%	34.8%	50.3%	39.4%
Neutral	1.0%	10.9%	.0%	.0%	7.5%	.0%	.0%	.0%	.0%	1.4%
Oppose	9.2%	7.4%	9.4%	7.9%	29.9%	6.3%	.0%	17.4%	28.1%	3.1%
Don't know	47.6%	39.6%	48.5%	29.8%	24.1%	49.1%	69.3%	47.8%	21.6%	56.1%
Number of surveys	96	55	41	9	52	19	11	4	31	65

Overall, in thinking about Minnesota lakes at the present time, do you think laws and regulations related to the lake and lakeshore environment have:

Figures are column percents Rating	Total	Respondent origin		Lake region used most					Riparian owner	
		NE	Not NE	Northwest	Northeast	Central	South	Metro	Yes	No
Gone too far	9.5%	12.0%	9.3%	10.0%	13.4%	11.3%	2.1%	11.1%	12.3%	8.8%
About right	40.7%	53.9%	39.6%	45.3%	42.4%	39.6%	42.1%	35.1%	45.5%	38.9%
Not far enough	29.5%	19.4%	30.3%	23.6%	33.7%	28.7%	34.6%	28.7%	28.7%	29.7%
Don't know	20.3%	14.7%	20.8%	21.1%	10.5%	20.4%	21.1%	25.2%	13.5%	22.5%
Number of surveys	652	337	315	66	326	109	66	77	192	455

How many years have you lived in Minnesota?

Figures are column percents Years	Total	Respondent origin		Lake region used most					Riparian owner	
		NE	Not NE	Northwest	Northeast	Central	South	Metro	Yes	No
Mean	45.5	47.5	45.3	48.6	48.5	42.7	45.8	33.9	46.8	45.2
Median	45.0	47.0	45.0	47.0	48.0	41.0	50.0	37.0	47.0	44.0
Minimum	1.0	2.0	1.0	2.0	2.0	2.0	1.0	2.0	2.0	1.0
Maximum	99.0	99.0	86.0	85.0	86.0	99.0	85.0	78.0	86.0	99.0
Number of surveys	807	396	411	68	337	110	66	80	201	599

How many years have you lived in Minnesota?

Figures are column percents Years	Total	Respondent origin		Lake region used most					Riparian owner	
		NE	Not NE	Northwest	Northeast	Central	South	Metro	Yes	No
1 - 20	11.4%	8.0%	11.7%	10.0%	3.1%	10.4%	7.9%	23.1%	9.5%	11.9%
21 - 40	31.3%	25.6%	31.8%	26.3%	26.6%	39.6%	32.8%	44.8%	28.5%	31.8%
41-60	31.0%	42.3%	30.1%	26.0%	47.0%	31.6%	35.6%	25.5%	37.7%	29.7%
61+	26.2%	24.1%	26.4%	37.8%	23.3%	18.4%	23.6%	6.6%	24.3%	26.5%
Number of surveys	807	396	411	68	337	110	66	80	201	599

Are you male or female?

Figures are column percents Gender	Total	Respondent origin		Lake region used most					Riparian owner	
		NE	Not NE	Northwest	Northeast	Central	South	Metro	Yes	No
Male	68.1%	70.5%	67.9%	68.1%	77.9%	72.6%	63.2%	73.7%	68.8%	68.0%
Female	31.9%	29.5%	32.1%	31.9%	22.1%	27.4%	36.8%	26.3%	31.2%	32.0%
Number of surveys	808	397	411	70	338	110	66	80	200	601

Do you own or lease shoreland property along a lake in Minnesota?

Figures are column percents Response	Total	Respondent origin		Lake region used most					Riparian owner	
		NE	Not NE	Northwest	Northeast	Central	South	Metro	Yes	No
Yes	17.2%	24.4%	16.7%	35.2%	27.4%	26.6%	17.5%	10.6%	100.0%	.0%
No	82.8%	75.6%	83.3%	64.8%	72.6%	73.4%	82.5%	89.4%	.0%	100.0%
Number of surveys	803	396	407	70	337	108	66	79	202	601

How many years has it been in your family?

Figures are column percents Years	Total	Respondent origin		Lake region used most					Riparian owner
		NE	Not NE	Northwest	Northeast	Central	South	Metro	Yes
Mean	22.4	28.9	21.6	24.1	28.1	21.1	19.9	10.1	22.4
Median	20.0	26.0	20.0	20.0	25.0	22.0	15.0	10.0	20.0
Minimum	1.0	1.0	1.0	2.0	2.0	1.0	5.0	1.0	1.0
Maximum	99.0	99.0	52.0	51.0	99.0	70.0	52.0	32.0	99.0
Number of surveys	193	113	80	23	104	35	13	12	193

How many years has it been in your family?

Figures are column percents Years	Total	Respondent origin		Lake region used most					Riparian owner
		NE	Not NE	Northwest	Northeast	Central	South	Metro	Yes
1 - 5	13.7%	14.9%	13.5%	13.0%	7.4%	17.9%	12.1%	17.9%	13.7%
6 - 10	15.8%	8.0%	16.8%	4.3%	5.3%	10.4%	35.2%	45.2%	15.8%
11 - 20	22.0%	18.3%	22.4%	33.7%	16.7%	17.8%	12.1%	36.2%	22.0%
21 - 30	25.1%	19.9%	25.7%	17.7%	42.9%	35.6%	22.6%	.0%	25.1%
31+	23.4%	38.8%	21.6%	31.4%	27.8%	18.2%	18.1%	.7%	23.4%
Number of surveys	193	113	80	23	104	35	13	12	193

Is this property your permanent residence?

Figures are column percents Response	Total	Respondent origin		Lake region used most					Riparian owner
		NE	Not NE	Northwest	Northeast	Central	South	Metro	Yes
Yes	47.8%	40.2%	48.6%	37.5%	22.7%	59.7%	46.7%	63.8%	47.8%
No	52.2%	59.8%	51.4%	62.5%	77.3%	40.3%	53.3%	36.2%	52.2%
Number of surveys	200	115	85	26	107	36	13	12	200

If not your permanent residence, please estimate the number of days you visit your seasonal property.
From May - August

Figures are column percents Days	Total	Respondent origin		Lake region used most					Riparian owner
		NE	Not NE	Northwest	Northeast	Central	South	Metro	Yes
Mean	44.7	56.7	43.2	59.4	32.6	36.3	51.7	43.8	44.7
Median	30.0	45.0	30.0	60.0	25.0	30.0	38.0	30.0	30.0
Minimum	1.0	2.0	1.0	7.0	4.0	2.0	5.0	1.0	1.0
Maximum	150.0	150.0	150.0	120.0	150.0	120.0	150.0	120.0	150.0
Number of surveys	106	63	43	17	60	19	6	4	106

If not your permanent residence, please estimate the number of days you visit your seasonal property.
From May - August

Figures are column percents Days	Total	Respondent origin		Lake region used most					Riparian owner
		NE	Not NE	Northwest	Northeast	Central	South	Metro	Yes
1 - 5	9.8%	4.7%	10.5%	.0%	22.7%	.7%	16.4%	24.7%	9.8%
6 - 20	22.3%	19.0%	22.7%	26.6%	24.1%	24.9%	17.2%	.0%	22.3%
21 - 40	30.5%	24.4%	31.2%	14.4%	32.0%	40.9%	32.8%	50.6%	30.5%
41 - 60	19.3%	14.5%	19.9%	26.0%	6.5%	31.4%	17.2%	.0%	19.3%
61+	18.1%	37.4%	15.6%	33.1%	14.7%	2.0%	16.4%	24.7%	18.1%
Number of surveys	106	63	43	17	60	19	6	4	106

If not your permanent residence, please estimate the number of days you visit your seasonal property.
From September - November

Figures are column percents Days	Total	Respondent origin		Lake region used most					Riparian owner
		NE	Not NE	Northwest	Northeast	Central	South	Metro	Yes
Mean	15.1	16.9	14.9	9.7	12.3	21.4	13.2	28.0	15.1
Median	10.0	10.0	10.0	5.0	7.0	20.0	15.0	10.0	10.0
Minimum	.0	.0	.0	.0	.0	.0	.0	1.0	.0
Maximum	90.0	75.0	90.0	30.0	75.0	70.0	24.0	90.0	90.0
Number of surveys	106	63	43	17	60	19	6	4	106

If not your permanent residence, please estimate the number of days you visit your seasonal property.
From September - November

Figures are column percents Days	Total	Respondent origin		Lake region used most					Riparian owner
		NE	Not NE	Northwest	Northeast	Central	South	Metro	Yes
0	15.0%	10.5%	15.6%	32.8%	3.3%	9.6%	16.4%	.0%	15.0%
1 - 5	23.8%	22.0%	24.1%	19.8%	30.5%	24.9%	17.2%	24.7%	23.8%
6 - 10	16.9%	25.7%	15.7%	13.8%	26.1%	8.5%	16.4%	25.8%	16.9%
11 - 20	21.8%	15.6%	22.5%	14.1%	30.3%	15.7%	33.6%	24.7%	21.8%
21+	22.5%	26.2%	22.0%	19.5%	9.8%	41.2%	16.4%	24.7%	22.5%
Number of surveys	106	63	43	17	60	19	6	4	106

If not your permanent residence, please estimate the number of days you visit your seasonal property.
From December - April

Figures are column percents Days	Total	Respondent origin		Lake region used most					Riparian owner
		NE	Not NE	Northwest	Northeast	Central	South	Metro	Yes
Mean	6.9	9.9	6.5	1.9	5.3	12.2	7.7	13.0	6.9
Median	2.0	5.0	2.0	.0	2.0	5.0	.0	14.0	2.0
Minimum	.0	.0	.0	.0	.0	.0	.0	.0	.0
Maximum	80.0	80.0	40.0	10.0	80.0	32.0	40.0	30.0	80.0
Number of surveys	106	63	43	17	60	19	6	4	106

If not your permanent residence, please estimate the number of days you visit your seasonal property.
From December - April

Figures are column percents Days	Total	Respondent origin		Lake region used most					Riparian owner
		NE	Not NE	Northwest	Northeast	Central	South	Metro	Yes
0	46.4%	29.1%	48.6%	73.7%	46.9%	10.3%	66.4%	24.7%	46.4%
1 - 5	23.4%	31.0%	22.4%	13.3%	28.4%	41.3%	16.4%	.0%	23.4%
6 - 10	13.6%	15.7%	13.3%	13.0%	15.1%	15.7%	.0%	24.7%	13.6%
11+	16.6%	24.2%	15.6%	.0%	9.5%	32.7%	17.2%	50.6%	16.6%
Number of surveys	106	63	43	17	60	19	6	4	106

What is the highest level of education you've completed?

Figures are column percents Grade level	Total	Respondent origin		Lake region used most					Riparian owner	
		NE	Not NE	Northwest	Northeast	Central	South	Metro	Yes	No
Some high school	6.0%	5.9%	6.0%	10.5%	2.4%	.9%	9.0%	1.0%	4.7%	6.4%
HS grad	17.6%	17.9%	17.6%	28.0%	15.1%	15.3%	15.5%	6.7%	17.5%	17.3%
Some coll/tech	23.2%	26.3%	23.0%	21.7%	26.1%	18.7%	42.0%	15.8%	22.0%	23.6%
Tech grad	11.0%	13.9%	10.8%	5.9%	9.8%	20.4%	7.5%	11.3%	7.4%	11.9%
Coll grad	23.8%	17.4%	24.3%	13.3%	16.8%	31.5%	16.3%	38.2%	21.8%	24.3%
Post grad	16.5%	16.3%	16.5%	17.7%	26.2%	12.4%	9.7%	27.0%	23.3%	15.0%
Other	1.8%	2.3%	1.8%	2.9%	3.7%	.9%	.1%	.0%	3.3%	1.5%
Number of surveys	796	391	405	68	336	110	66	79	199	588

Which groups do you belong to?

Figures are column percents Reason	Total	Respondent origin		Lake region used most					Riparian owner	
		NE	Not NE	Northwest	Northeast	Central	South	Metro	Yes	No
Sportsman	20.7%	28.9%	20.1%	33.6%	35.6%	29.6%	19.0%	14.2%	29.1%	18.4%
Environmental	12.7%	8.6%	13.0%	4.3%	21.2%	16.1%	10.0%	20.9%	16.7%	11.8%
Water rec	4.1%	5.1%	4.0%	4.3%	7.8%	4.5%	5.6%	6.1%	3.7%	4.2%
Lakeshore	10.0%	13.9%	9.7%	19.6%	10.7%	15.9%	12.0%	6.1%	49.1%	1.7%
Civic	17.4%	15.5%	17.6%	12.7%	22.5%	16.3%	22.8%	18.4%	19.8%	17.2%
Property rights	3.1%	3.2%	3.1%	1.4%	7.2%	1.8%	2.2%	3.8%	5.4%	2.4%
None	57.4%	51.0%	57.8%	52.2%	40.8%	48.0%	54.9%	57.1%	26.0%	64.4%
Number of surveys	776	383	393	66	330	105	62	76	198	569

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Minnesota Sea Grant is funded by the National Oceanic and Atmospheric Administration and the University of Minnesota.

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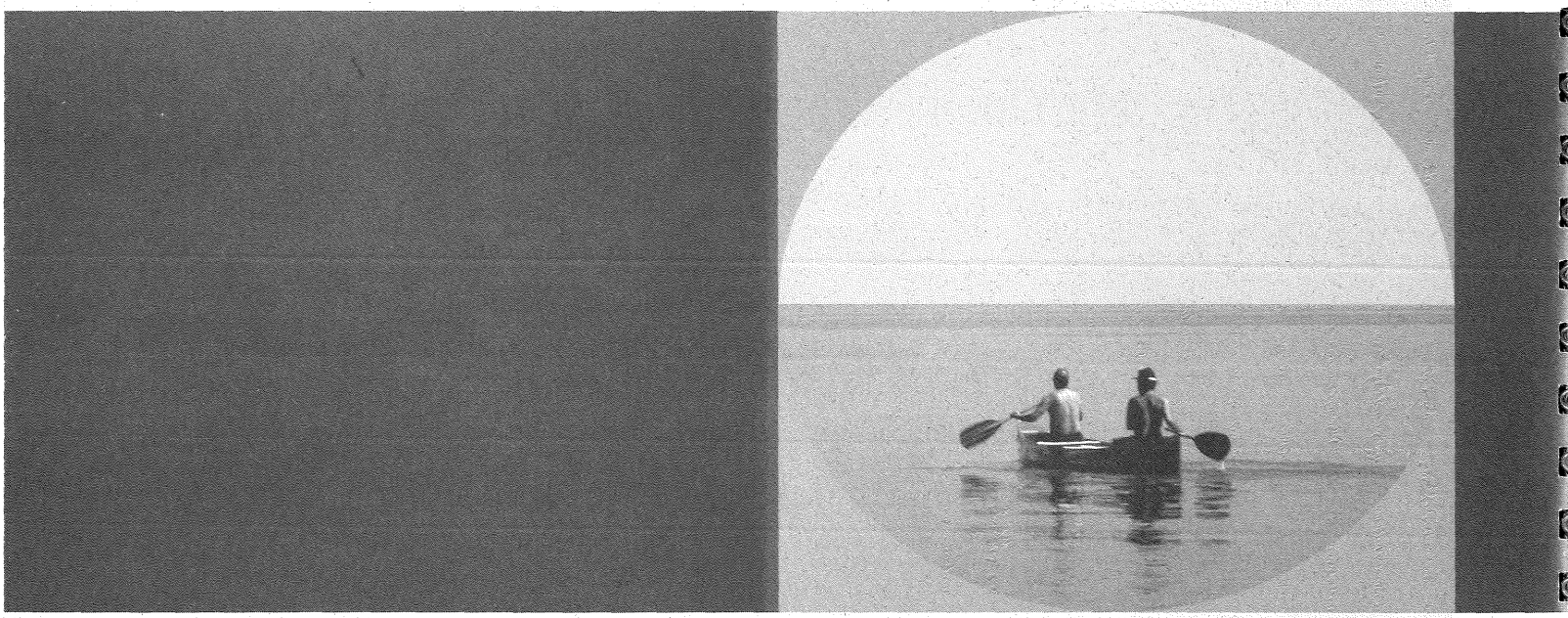

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