

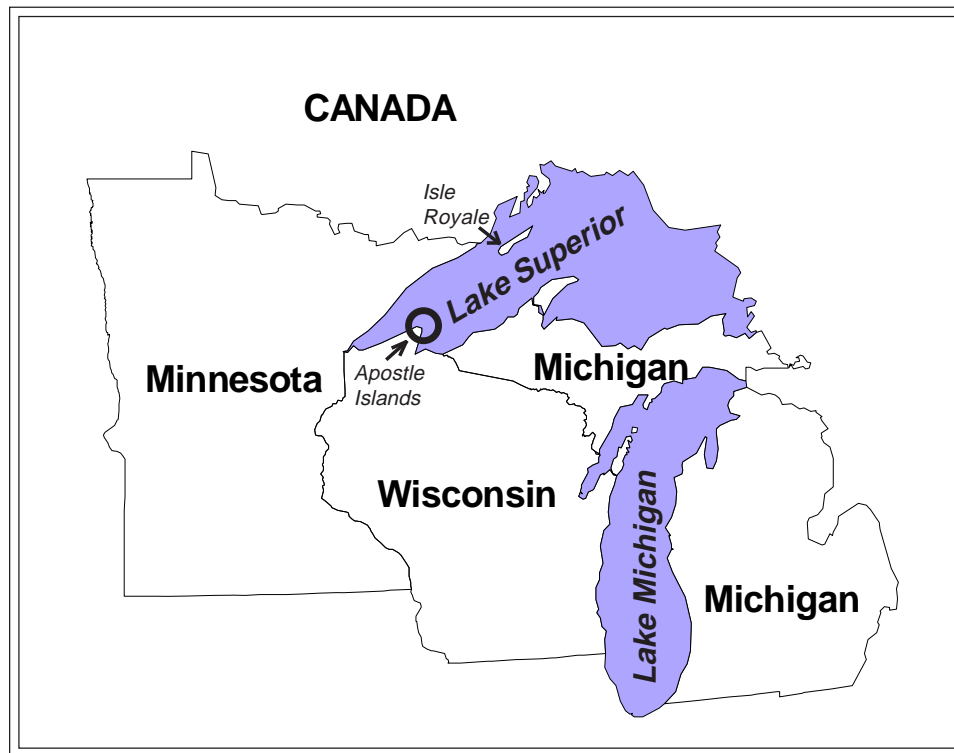
# 2011 LAKE SUPERIOR BOATING STUDY

Results of 2011 market study—with trends from 2003—for boating on the Minnesota waters of Lake Superior



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Results of 2011 market study—with trends from 2003—for boating on the Minnesota waters of Lake Superior



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*An electronic copy of this report can be found on the MN DNR's website:  
[www.mndnr.gov/aboutdnr/reports/index.html#boating](http://www.mndnr.gov/aboutdnr/reports/index.html#boating)*

*Cover photos: Top—Palisade Head on Lake Superior, USFS; Bottom—Silver Bay Safe Harbor, Marina and Access, MN DNR.*

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## INTRODUCTION

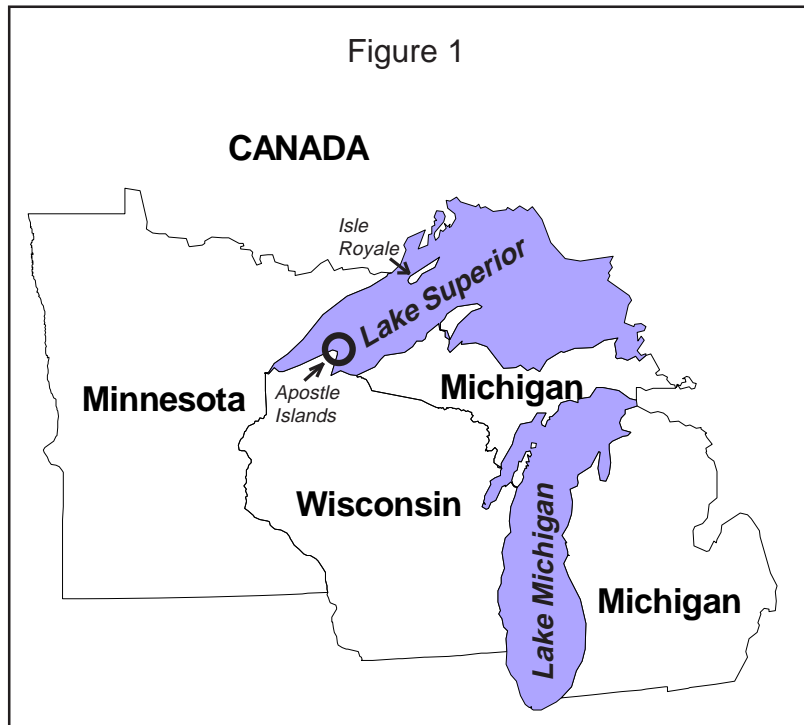
Minnesota's Lake Superior shoreline—rugged and scenic—has for decades been a recreational destination for travelers from throughout the Upper Midwest (Figure 1). Numerous parks, trails, forests, resorts and related tourist facilities have been developed along the shore to serve the recreating public. Traditionally, most of these facilities have been land-based, with the Lake largely appreciated from shore.

Over the last two decades, attention has focused on more fully opening up the Lake to recreational boating, from sea kayaking to sailing to multi-day trips from port to port. Providing for

recreational boating on the Minnesota portion of Lake Superior (often referred to as the North Shore) is more challenging than on Minnesota's numerous inland lakes and streams. The rugged shore, coupled with occasional large waves, means that launch facilities and marinas need protection from the Lake. In addition, Lake Superior waters are quite cold and the weather can be unpredictable. At times, boaters need sheltered places to get off the Lake in an emergency due to weather or other boating-related problems. To address these boating challenges, Minnesota currently provides a series of ten safe harbors (small craft harbors and protected accesses) along the North Shore from Duluth-Superior to the Canadian border (Reference 1).

### 2002-03 Boating studies

About ten years ago the Minnesota DNR conducted two studies to improve agency understanding of Lake Superior boating so Minnesota recreational boating



programs could be operated more effectively. During the summer of 2002 a recreational boater study was conducted on the Minnesota portion of Lake Superior (Reference 2). That study examined the quantity and characteristics of boating on the Lake, and boaters were queried about their experiences on the Lake. A companion market study was conducted in 2003 (Reference 3). It placed boating on the Minnesota portion of Lake Superior in a larger context of boating among alternative places. The study looked at use of Lake Superior compared with other places, and the use of the Minnesota portion of the Lake compared with the rest of the Lake. Boaters were queried about barriers to the use of the Minnesota portion of Lake Superior and about their awareness of programs designed to remove some of the known barriers. Safety was one known boater issue for Lake Superior, and safety issues were examined in the study. The needs of one boating market segment—transient boaters who travel overnight from place to place—were assessed in the study. Transient boaters represent a market segment that was—and still is—being targeted along the Minnesota portion of the Lake.

### 2011 Boating studies

The decision was made in 2011 to gather fresh information from boaters by redoing the 2003 market study referenced above. The 2011 effort is broken into two tasks: (i) replicate the 2003 study, so trends in the use and perceptions of the Lake could be assessed; and (ii) examine more closely the big-boat market on the Lake. Results from the first task are presented here, while results from the second task are presented in a separate report (Reference 4). The second task targeted for a survey all boaters who rent marina slips along or near the Minnesota portion of the Lake, which included marinas on the North Shore of the Lake in Minnesota, in Duluth-Superior, and in the Apostle Islands and vicinity (Figure 1).

The first task examined the same two boater populations examined in 2003. One is the general Minnesota boat-owner population, and the other is owners of large-boats from Minnesota and Wisconsin. The first population provides an overall Minnesota boater perspective on Lake Superior boating. Comparisons with 2003 indicate how this perspective has changed over time. An even earlier study extends some perspectives for this population back to 1988 (Reference 5).

The other population in the study was owners of large boats (24+ feet in length) registered in both Minnesota and Wisconsin. Lake Superior, being a large body

of water, tends to attract larger boats, so owners of such boats are an important segment in the Lake Superior boating market. Furthermore, owners of large boats are more likely to take overnight trips in their boats. Gaining a better understanding of this traveling boater market is one of the goals of the study. Wisconsin boat owners are included in the study along with their Minnesota counterparts, because they were commonly found on the Minnesota portion of the Lake in the 2002 Lake Superior boater study (Reference 2).

After a brief description of methodology, a summary of the results of the 2011 market survey—with comparisons to 2003—will be presented as follows:

- Boating on Lake Superior, including experience, current use, interest in boating more, and barriers to boating more.
- Safe harbors, including awareness of Minnesota’s program, effect on boating use of Lake Superior, and perceived need for more harbors.
- Overnight boating trips, including prevalence of, interest in, desirable destinations for, and important marina facilities/services for such trips.

The survey instrument used in the study is in Appendix A. For those who would like greater detail on methodology and survey results, please contact the Minnesota Department of Natural Resources.

## METHODOLOGY

Two boater populations were targeted with a self-administered mail survey in the months of October to December 2011. The first is the general Minnesota boat-owner population. This includes all boaters with Minnesota-registered boats (Reference 6). Nearly half these boat owners (46%) reside in the 14-county Twin Cities metropolitan area, with another 33 percent in northern Minnesota (Table 1).

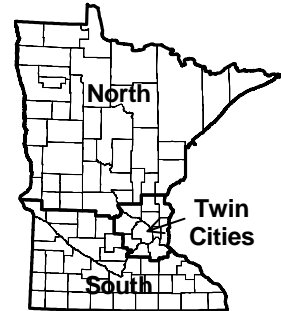
The sample of 800 Minnesota-registered boat owners is geographically representative of all owners, with one exception: counties bordering Lake Superior are sampled at twice the rate of other counties to help in recruiting a larger sample of Lake boaters. All survey results are adjusted for any over- and under-sampling of the boat owner population. After remails to nonrespondents, 492 surveys were returned, for a return rate of 64 percent (Table 2). The return rate is lower than in

### Table 1

#### Origin of boat owners in survey

<u>Origin of boat owner</u>	<u>Owners of all boats registered in Minnesota</u>	<u>Owners of large boats registered in Minnesota or Wisconsin*</u>
Minnesota		
Northern Minnesota	33%	12%
Twin Cities Minnesota	46%	28%
Southern Minnesota	<u>17%</u>	<u>5%</u>
<i>Minnesota subtotal</i>	96%	46%
Wisconsin	0.4%	44%
Other states	<u>4%</u>	<u>10%</u>
Total percent	100%	100%
<i>Number of boat owners</i>	527,447	54,365

Minnesota Boat Owner Origin Regions



\* A "large boat" is at least 24 feet long; includes recreational boats documented with the U. S. Coast Guard.

### Table 2

#### Administrative statistics for the two survey samples (as of February 16, 2012)

<u>Number of surveys</u>	<i>All boat owners with Minnesota registration</i>		<i>Owners of large boats (24 feet plus) registered in Minnesota and Wisconsin*</i>		
	<u>Total</u>		<u>Total</u>	<u>Minnesota</u>	<u>Wisconsin</u>
Mailed out	800		700	450	250
Delivered	765		661	426	235
Returned	492		358	254	104
Return rate	64%		54%	60%	44%
<i>Return rate in 2003</i>	73%		63%	65%	59%

\* Includes recreational boats documented with the U. S. Coast Guard.



the 2003 study, which is reflective of the general decline in survey response rates (Reference 7).

The other population in the study is owners of large boats (24+ feet in length) registered in Minnesota and Wisconsin (Reference 6). The Minnesota registration information is supplemented by U. S. Coast Guard records of documented vessels that are used for recreation. Documented vessels tend to be large boats, so it was important to include the owners of these craft in the survey population. For Wisconsin, documented vessels are included in the state boat-registration files.

The large boat owners are about evenly split between Minnesota and Wisconsin residents (46% and 44% of owners, respectively), with 10 percent from other states (Table 1). Within each state's registration information, the sample of boat owners is geographically representative of all owners, with one exception: counties bordering Lake Superior are sampled at twice the rate of other counties to help in recruiting a larger sample of Lake boaters. In addition, Minnesota owners are sampled at a higher rate (just over double) than Wisconsin owners. All survey results are adjusted for any over- and under-sampling of the large-boat owner population. After reminders to nonrespondents, 358 surveys were returned, for a return rate of 54 percent (Table 2). The return rate is much lower from the Wisconsin (44%) than Minnesota sample (60%). Overall, the return rate is down from the 2003 study, which is reflective of the general decline in survey response rates (Reference 7).

## BOATING ON LAKE SUPERIOR

### Experience and current use

About a quarter to a third (23% to 31%) of owners in 2011 have boated on Lake Superior sometime in the past (Table 3). This represents a large number of boat owners and a sizable portion of these populations. The amount of annual boating that occurs on the Lake, however, is relatively small (3% to 6%)(see Table 3). Large boat owners are more likely to have used the Lake in the past than general Minnesota boat owners (31% to 23%), and allocate more of annual boating to the Lake (6% to 3%). For those that use the Lake, the median years of experience is near 5, and the average is 10 to 13.

These 2011 Lake use statistics are little changed from 2003 (Table 3).



For general Minnesota boat owners, the origin of Lake Superior boaters is very similar in 2003 and 2011 (Table 4). Most live in the greater Twin Cities and Northern regions in Minnesota. For Minnesota-Wisconsin large-boat owners, most currently live in the same two Minnesota regions (Twin Cities and Northern) and Wisconsin. The contribution of the Twin Cities noticeably decreased—for whatever reason—between 2003 and 2011, while the contribution of the other origins is more stable (Table 4).

**Table 3**

Boating use of Lake Superior

	----- 2011 information -----		----- 2003 information -----	
	Owners of all boats registered in <u>Minnesota</u>	Owners of large boats registered in Minnesota or Wisconsin*	Owners of all boats registered in <u>Minnesota</u>	Owners of large boats registered in Minnesota or Wisconsin*
● Percent who have ever boated on Lake Superior	23%	31%	22%	29%
● Years boated on Lake Superior (for those who have boated on the Lake)				
Mean	10	13	10	9
Median	5	4	5	6
● Percent of annual use of primary boat on Lake Superior	3%	6%	2%	5%

\* A "large boat" is at least 24 feet long; includes recreational boats documented with the U. S. Coast Guard.

**Table 4**

Origin of owners who have boated on Lake Superior sometime in the past  
(percent of owners who have boated on Lake Superior)

<u>Origin of boat owner</u>	----- 2011 information -----		----- 2003 information -----	
	Owners of all boats registered in <u>Minnesota</u>	Owners of large boats registered in Minnesota or Wisconsin*	Owners of all boats registered in <u>Minnesota</u>	Owners of large boats registered in Minnesota or Wisconsin*
Minnesota				
Northern Minnesota	34%	17%	33%	16%
Twin Cities Minnesota	57%	37%	58%	49%
Southern Minnesota	<u>8%</u>	<u>7%</u>	<u>10%</u>	<u>2%</u>
Minnesota subtotal	99%	60%	100%	67%
Wisconsin	0%	35%	0%	32%
Other states	<u>1%</u>	<u>5%</u>	<u>0%</u>	<u>1%</u>
Total percent	100%	100%	100%	100%

\* A "large boat" is at least 24 feet long; includes recreational boats documented with the U. S. Coast Guard.

## Interest in boating more on the Minnesota waters of Lake Superior

Boaters are asked in the survey about their interest in boating more often (or at all) on the Minnesota waters of Lake Superior. Interest is highest among boaters who have used the Lake in the past, indicating that doing more is a valued experience (Table 5). A majority of past Lake users (54% to 60%) would like to boat more. In contrast, those who have not used the Lake have only a modest interest in boating on the Minnesota waters of the Lake (22% of large and general boat owners). Overall, when users and nonusers are combined, about one-third of large boat owners (32%) and general MN owners (31%) would like to boat more on the Minnesota waters of the Lake. Most of the rest either express no interest in boating more (45% to 47%) or are unsure of their level of interest (22% to 25%).

**Table 5**

Would you like to boat (or boat more often) on the Minnesota waters of Lake Superior?

**a. Owners of all boats registered in Minnesota**

Response	----- 2011 information ----- -- Ever boated on Lake Superior? --			----- 2003 information ----- -- Ever boated on Lake Superior? --		
	Overall	"No"	"Yes"	Overall	"No"	"Yes"
"yes"	31%	22%	60%	34%	26%	59%
"no"	45%	49%	30%	40%	47%	16%
"don't know"	<u>25%</u>	<u>29%</u>	<u>10%</u>	<u>26%</u>	<u>27%</u>	<u>25%</u>
Total percent	100%	100%	100%	100%	100%	100%

**b. Owners of large boats registered in Minnesota or Wisconsin\***

Response	----- 2011 information ----- -- Ever boated on Lake Superior? --			----- 2003 information ----- -- Ever boated on Lake Superior? --		
	Overall	"No"	"Yes"	Overall	"No"	"Yes"
"yes"	32%	22%	54%	40%	26%	72%
"no"	47%	56%	25%	36%	45%	14%
"don't know"	<u>22%</u>	<u>22%</u>	<u>21%</u>	<u>24%</u>	<u>29%</u>	<u>14%</u>
Total percent	100%	100%	100%	100%	100%	100%

\* A "large boat" is at least 24 feet long; includes recreational boats documented with the U. S. Coast Guard.

Since 2003, interest in boating more often (or at all) is down somewhat, especially among large boat owners (Table 5).

This same “interest” question was posed in 1988 to the general Minnesota boat owner (Reference 5). At that time, the portion expressing an interest in boating more was higher than the current study (44% versus 31%, respectively), while the portion having no interest was lower (30% versus 45%), and the portion that “didn’t know” was about the same (26% versus 25%). The reason for these changes is not known.

### Barriers to boating more on the Minnesota waters of Lake Superior

Boat owners are queried in the survey about barriers to boating more often (or at all) on the Minnesota waters of Lake Superior. Some of the barriers are shared by the general Minnesota boat owner and the large-boat owner, and some are different. Similarly, boaters who have had experience boating on the Lake have some barriers in common with boat owners with no experience, and have some barriers that are different.

Of the shared barriers between owners of large boats and general Minnesota boat owners, intervening opportunities (good places to boat that are closer to home) is top ranked (Table 6 and 7). This is followed by barriers related to personal skills, knowledge, and equipment. Such barriers are less important for large-boat owners (especially the barrier about the size of the boat being too small), although they are still leading barriers to large-boat owners. Time is also a shared leading barrier. Other barriers that stand out for the general Minnesota boat owner (but less so for the large-boat owner) concern personal risk. Lake Superior waters are cold, and occasional large waves coupled with a rugged shoreline can make boating difficult. Owning a larger boat appears to reduce these perceived personal risks.

Boaters who have never boated on Lake Superior have a pattern of barriers quite similar to those reported above for the overall boater, which includes those who have and have not boated on the Lake (this is not surprising, since about 70% to 80% of boaters have never boated on the Lake). As expected, the knowledge barrier (“I don’t know enough about Lake Superior boating”) is higher for those who have never boated on the Lake.

Boaters who have boated on Lake Superior have an additional group of barriers, which is related to boating facilities, services and opportunities. As a rule, users of a place tend to indicate lack of amenities as a barrier to the place’s use, and Lake Superior boaters are no exception. Four of the leading barriers in this group are

Table 6

Percent of *all MN-registered boat owners* agreeing with statement: **I haven't boated (or haven't boated more often) on the Minnesota waters of Lake Superior because . . .**

<u>Category</u>	<u>. . . Item</u>	<u>Overall</u>	<u>-- Ever boated on Lake Superior? --</u>	
			<u>"No"</u>	<u>"Yes"</u>
<b>Intervening opportunities</b>				
	• . . . other good places for boating are closer to home	66%	66%	65%
<b>Personal skills, knowledge and equipment</b>				
	• . . . my boat is too small	62%	63%	60%
	• . . . I don't know enough about Lake Superior boating	52%	56%	39%
	• . . . I lack the skills needed for Lake Superior boating	44%	47%	33%
<b>Time</b>				
	• . . . I don't have enough time to boat there as much as I would like	38%	33%	56%
<b>Personal risk</b>				
	• . . . even with more safe harbors, I would still be concerned about the danger of boating there	29%	28%	32%
	• . . . it's too dangerous	26%	27%	25%
	• . . . there are too few other boats in the area to assist me if something goes wrong	11%	9%	21%
<b>Boating facilities, services, opportunities</b>				
	• . . . I enjoy boating from place to place, and destinations are too far apart there	18%	14%	31%
	• . . . there isn't enough good information on Lake Superior boating	15%	12%	25%
	• . . . there are not enough boat-launching facilities	11%	6%	29%
	• . . . there are not enough safe harbors (a protected place to escape bad weather)	12%	7%	28%
	• . . . there are not enough marinas with permanent slips, lodging, and food service	9%	3%	27%
	• . . . there are not enough marinas with transient slips	8%	3%	26%
	• . . . there are not enough safety patrol and water rescue services	5%	2%	12%
	• . . . the fishing is poor	5%	3%	12%
	• . . . there are not enough charter/rental boats for other purposes	3%	1%	8%
	• . . . there are not enough charter/rental boats for fishing	3%	2%	7%
<b>Weather</b>				
	• . . . the weather is unpleasant	13%	12%	14%
<b>Expense</b>				
	• . . . it is too expensive to boat there	13%	12%	16%
<b>Do enough already</b>				
	• . . . I already do enough boating on Lake Superior	8%	5%	19%
<b>Additional leisure opportunities</b>				
	• . . . there is too little to do, other than boating	5%	4%	9%

Table 7

Percent of MN-WI-registered large-boat owners agreeing with statement: **I haven't boated (or haven't boated more often) on the Minnesota waters of Lake Superior because . . .**

<b>Category</b>	<b>Item</b>	<b>Overall</b>	<b>-- Ever boated on Lake Superior? --</b>	
			<b>"No"</b>	<b>"Yes"</b>
<b>Intervening opportunities</b>				
	• . . . other good places for boating are closer to home	64%	62%	68%
<b>Personal skills, knowledge and equipment</b>				
	• . . . my boat is too small	36%	40%	27%
	• . . . I don't know enough about Lake Superior boating	49%	54%	38%
	• . . . I lack the skills needed for Lake Superior boating	30%	34%	24%
<b>Time</b>				
	• . . . I don't have enough time to boat there as much as I would like	41%	34%	57%
<b>Personal risk</b>				
	• . . . even with more safe harbors, I would still be concerned about the danger of boating there	17%	17%	18%
	• . . . it's too dangerous	14%	13%	14%
	• . . . there are too few other boats in the area to assist me if something goes wrong	11%	7%	18%
<b>Boating facilities, services, opportunities</b>				
	• . . . I enjoy boating from place to place, and destinations are too far apart there	22%	15%	36%
	• . . . there isn't enough good information on Lake Superior boating	10%	8%	15%
	• . . . there are not enough boat-launching facilities	7%	4%	13%
	• . . . there are not enough safe harbors (a protected place to escape bad weather)	16%	7%	33%
	• . . . there are not enough marinas with permanent slips, lodging, and food service	14%	5%	33%
	• . . . there are not enough marinas with transient slips	14%	4%	34%
	• . . . there are not enough safety patrol and water rescue services	5%	3%	9%
	• . . . the fishing is poor	4%	2%	8%
	• . . . there are not enough charter/rental boats for other purposes	3%	3%	3%
	• . . . there are not enough charter/rental boats for fishing	3%	3%	4%
<b>Weather</b>				
	• . . . the weather is unpleasant	14%	9%	24%
<b>Expense</b>				
	• . . . it is too expensive to boat there	11%	8%	17%
<b>Do enough already</b>				
	• . . . I already do enough boating on Lake Superior	8%	4%	17%
<b>Additional leisure opportunities</b>				
	• . . . there is too little to do, other than boating	9%	5%	15%

shared by the owners of large boats and the general Minnesota boat owner: boating destinations too far apart, not enough safe harbors, not enough marinas with permanent slips, and not enough marinas with transient slips. The general Minnesota boat owner has an additional leading barrier of not enough boat-launching facilities.

Some of the potential barriers to boating more are not very important to any of the boat owners on Table 6 or 7 (i.e., indicated by less than 20% of owners), and they are noteworthy for that reason. These low-importance barriers are: not enough safety patrol and water rescue services, poor fishing, not enough charter/rental boats, high expense, lack of leisure opportunities other than boating, and already doing enough boating on the Lake.

Since 2003, barriers have changed little for any of the groups of boat owners (Table 8—contains “overall” percents from Tables 6 and 7 and the 2003 overall percents). The similarity of the ordering of the 22 potential barriers in 2011 and 2003 is further evident in high correlation coefficients (all 0.95+) between the three 2011-to-2003 comparisons for general Minnesota boat owners (three columns of percentages in Table 6) and three comparisons for large boat owners (three columns of percentages in Table 7).

In addition, the 1988 survey included 16 of the 22 barriers covered in the current study (Reference 5). Boat owners have nearly the same ordering of barriers now as in 1988 (the correlation coefficient is 0.96 for the percent of boat owners agreeing now and in 1998 that the 16 items are barriers to more boating). The 16 barriers in this and the 1988 study are all those on Table 6, except the following six: “. . . even with more safe harbors, I would still be concerned about the danger of boating there”; “. . . there are too few other boats in the area to assist me if something goes wrong”; “. . . I enjoy boating from place to place, and destinations are too far apart there”; “. . . there are not enough boat-launching facilities”; “. . . there are not enough marinas with transient slips”; and “. . . there is too little to do, other than boating.”

## Table 8

*Percent of registered boat owners agreeing with statement: **I haven't boated (or haven't boated more often) on the Minnesota waters of Lake Superior because . . .***

Category	Item	----- 2011 information -----		----- 2003 information -----	
		Owners of all boats registered in Minnesota	Owners of large boats registered in Minnesota or Wisconsin*	Owners of all boats registered in Minnesota	Owners of large boats registered in Minnesota or Wisconsin*
<b>Intervening opportunities</b>					
	• . . . other good places for boating are closer to home	66%	64%	70%	63%
<b>Personal skills, knowledge and equipment</b>					
	• . . . my boat is too small	62%	36%	62%	26%
	• . . . I don't know enough about Lake Superior boating	52%	49%	55%	45%
	• . . . I lack the skills needed for Lake Superior boating	44%	30%	47%	27%
<b>Time</b>					
	• . . . I don't have enough time to boat there as much as I would like	38%	41%	36%	43%
<b>Personal risk</b>					
	• . . . even with more safe harbors, I would still be concerned about the danger of boating there	29%	17%	33%	17%
	• . . . it's too dangerous	26%	14%	28%	13%
	• . . . there are too few other boats in the area to assist me if something goes wrong	11%	11%	13%	13%
<b>Boating facilities, services, opportunities</b>					
	• . . . I enjoy boating from place to place, and destinations are too far apart there	18%	22%	19%	17%
	• . . . there isn't enough good information on Lake Superior boating	15%	10%	16%	16%
	• . . . there are not enough boat-launching facilities	11%	7%	14%	11%
	• . . . there are not enough safe harbors (a protected place to escape bad weather)	12%	16%	14%	16%
	• . . . there are not enough marinas with permanent slips, lodging, and food service	9%	14%	10%	16%
	• . . . there are not enough marinas with transient slips	8%	14%	10%	15%
	• . . . there are not enough safety patrol and water rescue services	5%	5%	9%	6%
	• . . . the fishing is poor	5%	4%	7%	7%
	• . . . there are not enough charter/rental boats for other purposes	3%	3%	3%	2%
	• . . . there are not enough charter/rental boats for fishing	3%	3%	3%	3%
<b>Weather</b>					
	• . . . the weather is unpleasant	13%	14%	14%	9%
<b>Expense</b>					
	• . . . it is too expensive to boat there	13%	11%	11%	8%
<b>Do enough already</b>					
	• . . . I already do enough boating on Lake Superior	8%	8%	8%	7%
<b>Additional leisure opportunities</b>					
	• . . . there is too little to do, other than boating	5%	9%	8%	8%

\* A "large boat" is at least 24 feet long; includes recreational boats documented with the U. S. Coast Guard.



## SAFE HARBORS

One of the preceding potential barriers to boating more along the Minnesota waters of Lake Superior concerns safe harbors. Safe harbors are facilities designed to meet the challenge of opening up the Minnesota waters of Lake Superior to recreational boating. The rugged Lake Superior shore, coupled with occasional large waves, means that launch facilities and marinas need protection from the Lake. In addition, Lake Superior waters are quite cold and the weather can be unpredictable. At times, boaters need sheltered places to get off the Lake in an emergency due to weather or other boating-related problems. To address these boating challenges, Minnesota currently provides a series of ten safe harbors (small craft harbors and protected accesses) along the North Shore of the Lake from Duluth-Superior to the Canadian border (Reference 1).

The survey asked boat owners about their awareness of the safe harbor program in Minnesota. The results indicate that awareness is not very high, and has not changed much since 2003 (Table 9). For the general Minnesota boat owner in 2011, the large majority either never heard of the program (73%) or didn't know very much about the program (13%). Some owners knew a few things about the program (12%) and few knew a lot (2%). The percent that had at least some awareness of the program (either knew a few things or knew a lot) was higher for boat owners who had boated on the Lake (33%). Largely the same pattern of results is evident for large-boat owners, including the percent of Lake Superior boaters who had at least some awareness of the program (29%).

This relatively low awareness had a substantial effect on responses to related questions. When asked in 2011 whether the safe harbors had allowed them to boat more often or travel further on the Lake, the largest group of boat owners who have boated on the Lake responded "don't know" (Table 10). For those that did know, the majority responded "no", indicating that the safe harbors had not allowed them to boat more often or travel further. These 2011 results are close to those found in 2003 (Table 10).

Similarly, when queried in 2011 about the need for additional safe harbors, the largest group of boat owners who have boated on the Lake responded "don't know" (Table 10). For those that did know, the large majority responded "yes", indicating a need for more safe harbors. This percent indicating a need for more harbors in 2011 is nearly the same as in 2003 (Table 11).

### Table 9

Prior to receiving this survey, how much did you know about the program to construct safe harbors on the Minnesota shoreline of Lake Superior?

**a. Owners of all boats registered in Minnesota**

Response	----- 2011 information ----- -- Ever boated on Lake Superior? --			----- 2003 information ----- -- Ever boated on Lake Superior? --		
	Overall	"No"	"Yes"	Overall	"No"	"Yes"
"never heard of this program before"	73%	78%	54%	72%	80%	48%
"didn't know very much"	13%	13%	14%	14%	12%	20%
"knew a few things"	12%	8%	26%	11%	8%	24%
"knew a lot"	<u>2%</u>	<u>1%</u>	<u>7%</u>	<u>2%</u>	<u>0%</u>	<u>8%</u>
Total percent	100%	100%	100%	100%	100%	100%

**b. Owners of large boats registered in Minnesota or Wisconsin\***

Response	----- 2011 information ----- -- Ever boated on Lake Superior? --			----- 2003 information ----- -- Ever boated on Lake Superior? --		
	Overall	"No"	"Yes"	Overall	"No"	"Yes"
"never heard of this program before"	76%	87%	50%	70%	79%	48%
"didn't know very much"	12%	7%	22%	15%	13%	18%
"knew a few things"	10%	6%	20%	13%	7%	26%
"knew a lot"	<u>3%</u>	<u>0%</u>	<u>9%</u>	<u>3%</u>	<u>1%</u>	<u>8%</u>
Total percent	100%	100%	100%	100%	100%	100%

\* A "large boat" is at least 24 feet long; includes recreational boats documented with the U. S. Coast Guard.

### Table 10

Have the safe harbors that have been built on Lake Superior allowed you to boat more often or travel further on the Lake?

(responses of boaters who have boated on Lake Superior)

Response	----- 2011 information -----		----- 2003 information -----	
	Owners of all boats registered in Minnesota	Owners of large boats registered in Minnesota or Wisconsin*	Owners of all boats registered in Minnesota	Owners of large boats registered in Minnesota or Wisconsin*
"yes"	18%	28%	15%	26%
"no"	39%	29%	39%	34%
"don't know"	<u>43%</u>	<u>43%</u>	<u>46%</u>	<u>40%</u>
Total percent	100%	100%	100%	100%

\* A "large boat" is at least 24 feet long; includes recreational boats documented with the U. S. Coast Guard.

### Table 11

Do you think additional safe harbors are needed on Lake Superior?

(responses of boaters who have boated on Lake Superior)

Response	----- 2011 information -----		----- 2003 information -----	
	Owners of all boats registered in Minnesota	Owners of large boats registered in Minnesota or Wisconsin*	Owners of all boats registered in Minnesota	Owners of large boats registered in Minnesota or Wisconsin*
"yes"	35%	39%	36%	39%
"no"	10%	4%	19%	6%
"don't know"	<u>56%</u>	<u>58%</u>	<u>45%</u>	<u>55%</u>
Total percent	100%	100%	100%	100%

\* A "large boat" is at least 24 feet long; includes recreational boats documented with the U. S. Coast Guard.

Regardless of a boat owner's knowledge of the safe harbor program, the idea of having a safe harbor nearby is important to boaters who use Lake Superior. When asked in 2011 about their level of concern of being caught on the Lake without a safe harbor nearby, many boat owners who have used the Lake were "somewhat concerned" or "very concerned" (42% to 51%— see Table 12). Concern is higher among owners of large boats, one-third of whom (34%) are "very concerned." Level of concern, however, is lower in 2011 than 2003. The reason for this change is not known.

### Table 12

How concerned are you about being caught out on Lake Superior without a safe harbor nearby?

(responses of boaters who have boated on Lake Superior)

Response	----- 2011 information -----		----- 2003 information -----	
	Owners of all boats registered in Minnesota	Owners of large boats registered in Minnesota or Wisconsin*	Owners of all boats registered in Minnesota	Owners of large boats registered in Minnesota or Wisconsin*
"not concerned"	31%	22%	25%	10%
"slightly concerned"	15%	17%	17%	12%
"somewhat concerned"	25%	17%	26%	22%
"very concerned"	17%	34%	27%	51%
"don't know"	<u>11%</u>	<u>10%</u>	<u>5%</u>	<u>5%</u>
Total percent	100%	100%	100%	100%

\* A "large boat" is at least 24 feet long; includes recreational boats documented with the U. S. Coast Guard.

## OVERNIGHT BOATING TRIPS

One boating market the survey targeted is overnight boaters. Specifically, the survey garnered information on past behavior as an overnight boater, interest in such boating, desirable destinations for overnight trips, and the facility/service needs at (and near) marinas that provide transient spaces for overnight boaters.

One-quarter (25%) of general Minnesota boat owners, and a higher portion of large-boat owners (37%) have taken an overnight trip in their primary boat (Table 13). Interest in taking overnight trips among those who have not done so is not particularly large: 9 percent for general Minnesota boat owners, and 10 percent for large-boat owners. A majority of boat owners have neither taken an overnight trip in their primary boat, nor have any interest in doing so.

**Table 13**

Overnight boating trips

Boater category	----- 2011 information -----		----- 2003 information -----	
	Owners of all boats registered in Minnesota	Owners of large boats registered in Minnesota or Wisconsin*	Owners of all boats registered in Minnesota	Owners of large boats registered in Minnesota or Wisconsin*
● Percent of boaters having taken an overnight trip in their primary boat	25%	37%	26%	47%
● Percent of boaters <u>not</u> having taken an overnight trip, but having an interest in such a trip	9%	10%	12%	10%
● Percent of boaters <u>not</u> having taken an overnight trip, and <u>not</u> having an interest in such a trip	<u>66%</u>	<u>54%</u>	<u>62%</u>	<u>43%</u>
Total percent	100%	100%	100%	100%

\* A "large boat" is at least 24 feet long; includes recreational boats documented with the U. S. Coast Guard.

Since 2003 little has changed for the general Minnesota boat owner regarding the propensity for taking overnight trips or—if not having taken an overnight—the interest in doing so (Table 13). For large boat owners, however, the portion having taken an overnight trip declined from 47 percent in 2003 to 37 percent in 2011.

Boaters who have taken an overnight trip, or have an interest in doing so, ranked the desirability of various Lake Superior destinations for such trips. The intent was to find out how the Minnesota waters of Lake Superior and the Duluth-Superior Harbor compared with other Lake destinations.

Both the general Minnesota boat owner and the large-boat owner agreed that the Apostle Islands is the most desirable Lake Superior destination (Table 14 and 15). It is the most desirable for all boater origins, too. It is particularly desirable for those who have boated on the Lake, but it is also the most desirable Lake destination among owners who have never boated on the Lake, no doubt a reflection of the Islands' boating image.

The second and third most desirable Lake destinations—both for boaters who have and have not used the Lake—are the Minnesota waters of Lake Superior and Isle Royale, with the Minnesota waters ranked second for the general Minnesota boat owner and third for the large boat owner. Next in terms of desirability is the Duluth-Superior Harbor, followed by the Canadian and Michigan waters of Lake Superior.

The ordering of desirability rankings for Lake Superior destinations did not change from 2003 to 2011 for general Minnesota boat owners or large boat owners (Table 16—contains “overall” desirability ratings from Tables 14 and 15 and the 2003 overall ratings). In 2003, the Duluth-Superior Harbor was not offered as a destination.

Boaters who have taken an overnight trip, or have an interest in doing so, indicated the importance of various facilities/services at (or near) marinas that provide for transient boats. For both the general Minnesota boat owner and large boat owner, the most important marina facilities/services are the same: adequate security for me and my boat, cell phone access, fuel pumps, ability to make advance reservations for my boat, and private restrooms and showers for marina patrons (Table 17).

Near the marina, the most important item to the general Minnesota boat owner is fishing opportunities. This is followed by places to shop for groceries, restaurant opportunities, and opportunities for sightseeing/visiting historic sites. For the large boat owner, places to shop for groceries and restaurant opportunities are top ranked.

### Table 14

In your [an owner of a boat registered in Minnesota] opinion, how desirable are the following destinations for an overnight boating trip?

(responses of boat owners who either have taken an overnight trip with their primary boat or have an interest in taking an overnight trip)

(mean desirability value based on scale : 1=not desirable, 2=slightly desirable, 3=moderately desirable, 4=very desirable)

Destination	Overall	----- Origin of boater -----			-- Every boated on Lake Superior? --	
		Northern MN	Twin Cities MN	Southern MN	"No"	"Yes"
<u>Lake Superior destinations:</u>						
● Apostle Islands area of Lake Superior in Wisconsin	3.3	3.0	3.5	3.4	3.0	3.7
● Minnesota North Shore waters of Lake Superior	3.1	3.2	3.1	2.8	2.9	3.4
● Isle Royale in Lake Superior	3.1	2.9	3.2	2.8	2.8	3.4
● Duluth-Superior Harbor	2.6	2.3	2.7	2.5	2.4	2.8
● Canadian waters of Lake Superior	2.5	2.5	2.5	2.7	2.3	2.8
● Michigan waters of Lake Superior	2.3	2.3	2.4	2.2	2.1	2.7
<u>Other destinations:</u>						
● Lower St. Croix River (Lake St. Croix)	3.0	2.6	3.1	3.5	3.1	2.9
● Mississippi River from Minneapolis-St. Paul south	2.8	2.4	2.9	3.5	3.0	2.6
● Lake Michigan	2.3	2.3	2.2	2.2	2.0	2.6

### Table 15

In your [an owner of a large boat\* registered in Minnesota or Wisconsin] opinion, how desirable are the following destinations for an overnight boating trip?

(responses of boat owners who either have taken an overnight trip with their primary boat or have an interest in taking an overnight trip)

(mean desirability value based on scale : 1=not desirable, 2=slightly desirable, 3=moderately desirable, 4=very desirable)

Destination	Overall	----- Origin of boater -----				-- Every boated on Lake Superior? --	
		Northern MN	Twin Cities MN	Southern MN	Wisconsin	"No"	"Yes"
<u>Lake Superior destinations:</u>							
● Apostle Islands area of Lake Superior in Wisconsin	3.4	3.7	3.5	3.4	3.2	3.0	3.7
● Isle Royale in Lake Superior	3.1	3.3	3.2	3.2	2.8	2.6	3.4
● Minnesota North Shore waters of Lake Superior	2.9	3.2	3.1	2.8	2.5	2.6	3.1
● Duluth-Superior Harbor	2.8	3.0	2.8	2.7	2.6	2.5	3.0
● Michigan waters of Lake Superior	2.8	2.9	2.8	2.5	2.8	2.5	3.0
● Canadian waters of Lake Superior	2.5	3.1	2.6	2.1	2.2	2.1	2.8
<u>Other destinations:</u>							
● Lake Michigan	2.8	2.7	2.5	2.7	3.0	2.8	2.9
● Lower St. Croix River (Lake St. Croix)	2.7	2.3	2.9	3.3	2.5	2.9	2.5
● Mississippi River from Minneapolis-St. Paul south	2.7	2.2	2.9	3.9	2.4	2.8	2.5

\* A "large boat" is at least 24 feet long; includes recreational boats documented with the U. S. Coast Guard.

Table 16

In your opinion, how desirable are the following destinations for an overnight boating trip?

(responses of boat owners who either have taken an overnight trip with their primary boat or have an interest in taking an overnight trip)  
 (mean desirability value based on scale : 1=not desirable, 2=slightly desirable, 3=moderately desirable, 4=very desirable)

Destination	----- 2011 information -----		----- 2003 information -----	
	Owners of all boats registered in Minnesota	Owners of large boats registered in Minnesota or Wisconsin*	Owners of all boats registered in Minnesota	Owners of large boats registered in Minnesota or Wisconsin*
<u>Lake Superior destinations:</u>				
● Apostle Islands area of Lake Superior in Wisconsin	3.3	3.4	3.3	3.6
● Minnesota North Shore waters of Lake Superior	3.1	2.9	3.0	3.0
● Isle Royale in Lake Superior	3.1	3.1	3.0	3.3
● Duluth-Superior Harbor	2.6	2.8	(not asked in 2003)	(not asked in 2003)
● Canadian waters of Lake Superior	2.5	2.5	2.5	2.8
● Michigan waters of Lake Superior	2.3	2.8	2.5	2.9
<u>Other destinations:</u>				
● Lower St. Croix River (Lake St. Croix)	3.0	2.7	2.9	3.1
● Mississippi River from Minneapolis-St. Paul south	2.8	2.7	2.6	3.0
● Lake Michigan	2.3	2.8	2.2	3.0

\* A "large boat" is at least 24 feet long; includes recreational boats documented with the U. S. Coast Guard.

The importance ranking of facilities/services by large boat owners (Table 17) is very similar to those of seasonal slip renters at Minnesota-Wisconsin Lake Superior marinas (correlation coefficient of 0.95 for the mean importance of the 26 items)(see Reference 4 for marina results).

The relative importance rankings for facilities/services are largely the same in 2003 as 2011 for general Minnesota boat owners and large boat owners (correlation coefficients of 0.88 and 0.93 for the mean importance of 18 comparable items for the general Minnesota owner and large boat owner, respectively). One item (internet access) notably increased in importance from 2003 to 2011 for both the general Minnesota and large boat owner, although it is still not highly ranked in 2011.



## Table 17

When you take an overnight boating trip, how important is it to have the following facilities and services available to you at a marina where you spend the night?

(responses of boat owners who either have taken an overnight trip with their primary boat or have an interest in taking an overnight trip)

(mean importance value based on scale : 1=not important, 2=slightly important, 3=moderately important, 4=very important)

<u>Facility/service</u>	----- <i>Type of boat owner</i> -----	
	Owner of a boat registered in Minnesota	Owner of a large boat* registered in Minnesota or Wisconsin
<b><i>AT THE MARINA</i></b>		
● adequate security for me and my boat	3.0	3.5
● cell phone access	2.9	3.3
● fuel pumps	2.6	3.2
● ability to make advance reservations for my boat	2.6	3.3
● private restrooms and showers for marina patrons	2.6	3.1
● knowledgeable marina operator(s) with whom to discuss boats and boating topics	2.5	2.8
● ability to contact marina staff by radio with questions	2.4	3.0
● electricity connection dockside	2.2	3.1
● drinking water connection dockside	2.2	2.7
● boat repair services	2.1	2.6
● indoor place for boaters to relax	2.1	2.2
● ship store	1.9	2.4
● internet access	1.9	2.1
● sewage pumpout services	1.6	2.7
● laundry facilities	1.6	2.0
● cable TV connections	1.4	1.7
<b><i>NEAR THE MARINA</i></b>		
● fishing opportunities	2.9	2.2
● places to shop for groceries	2.6	2.9
● opportunities for sightseeing, visiting historic sites	2.6	2.5
● restaurant opportunities	2.6	3.0
● outdoor recreation opportunities	2.5	2.3
● lodging opportunities	2.5	2.1
● shuttle or transportation service for shopping, restaurants and entertainment outings	2.1	2.5
● entertainment opportunities	2.0	2.2
● retail shopping opportunities	1.8	2.1
● bicycle rental opportunity	1.8	1.8

\* A "large boat" is at least 24 feet long; includes recreational boats documented with the U. S. Coast Guard.

## REFERENCES

1. Minnesota Department of Natural Resources (MN DNR). The safe harbor program is described on the MN DNR website at: [http://www.dnr.state.mn.us/water\\_access/harbors/index.html](http://www.dnr.state.mn.us/water_access/harbors/index.html) .
2. Minnesota Department of Natural Resources (MN DNR). 2002. Boating on the Minnesota portion of Lake Superior, Summer 2002. MN DNR, Office of Management and Budget Services. See MN DNR website at: [http://www.dnr.state.mn.us/aboutdnr/reports/boating\\_lakesuperior.html](http://www.dnr.state.mn.us/aboutdnr/reports/boating_lakesuperior.html) .
3. Minnesota Department of Natural Resources (MN DNR). 2003. Market study for boating on the Minnesota waters of Lake Superior. MN DNR, Office of Management and Budget Services. See MN DNR website at: [http://www.dnr.state.mn.us/aboutdnr/reports/boating\\_marketstudylksup2003.html](http://www.dnr.state.mn.us/aboutdnr/reports/boating_marketstudylksup2003.html) .
4. Minnesota Department of Natural Resources (MN DNR). 2012 (in progress). 2011 Lake Superior boating study: Results of survey of seasonal-slip renters at marinas located in and near the Minnesota portion of Lake Superior. MN DNR, Division of Operations Services.
5. Lime, David W., Leo H. McAvoy, Curits Schatz, and David G. Pitt. 1989. Recreational Boating on Lake Superior. Research Summary No. 5. University of Minnesota, Minnesota Extension Service, Tourism Center. This study was based on a 1988 boater survey that was funded by the Minnesota Department of Natural Resources.
6. Sources of boat registration and owner information:
  - Minnesota: Minnesota Department of Natural Resources, all registrations current as of August 2011. From U.S. Coast Guard, obtained data file “Merchant Vessels of the United States”, for all document vessels current as of July 2011.
  - Wisconsin: Wisconsin Department of Natural Resources, all registrations current as of August 2011. Includes U.S. Coast Guard documented vessels relevant to this study.
7. Dillman, Don A., Jolene D. Smyth, and Leah Melani Christian. 2009. Internet, Mail, and Mixed-Mode Surveys: The Tailored Design Method. John Wiley & Sons.

## APPENDIX A

Survey instrument for market study  
(six pages)

# 2011 Boater Survey

## SECTION 1 — Your boats and their general use

1. What type of boat is your *primary* boat? (if in doubt, select your largest boat as your *primary* boat) (check one)  
 cruiser (has cabin or superstructure)     jetski     canoe     pontoon  
 runabout (has windshield)     sailboat     sail-board     kayak  
 fishing (no windshield)     other (please specify) \_\_\_\_\_
2. What is the length of your primary boat? \_\_\_\_\_ feet
3. a. What is the principal type of motor on your primary boat? (check one)  
 gas/diesel     electric     no motor     don't know  
b. IF GAS/DIESEL MOTOR, fill in the horsepower: \_\_\_\_\_ horsepower
4. Which of the following do you have on your primary boat? (check all that apply)  
 fire extinguisher     horn     toilet, with holding tank  
 GPS unit     depth finder     port-a-potty  
 marine radio     lights     life vests/personal flotation devices  
 cell phone     radar     throwable lifesaver/buoyant cushion  
 visual distress signal (flag, flares)     none of these items
5. In the last 12 months, how many days was your primary boat used by you or anyone else?  
\_\_\_\_\_ days (if zero, write "0" and skip to question 7 on page 3)
  - a. On about how many of these days was your primary boat used within an hour's drive of your home?  
\_\_\_\_\_ days (if zero, write "0")
  - b. In what region did most of these boating days occur (see map at bottom of next page)?  
\_\_\_\_\_ region number from map
6. In the last 12 months, how many days was your primary boat used by you or anyone else . . .
  - a. . . . anywhere on Lake Michigan \_\_\_\_\_ days (if zero, write "0")
  - b. . . . anywhere on Lake Superior \_\_\_\_\_ days (if zero, write "0")
  - c. . . . near Isle Royale on Lake Superior (region 10 on map at bottom of page)  
\_\_\_\_\_ days (if zero, write "0")

(continued on next page)

- d. . . . on the Minnesota waters of Lake Superior (region 4 on map at bottom of page)  
 \_\_\_\_\_ days (if zero, write "0", and skip to question 7 on next page)



**IF 6d IS ONE OR MORE DAYS, PLEASE ANSWER THESE TWO QUESTIONS:**

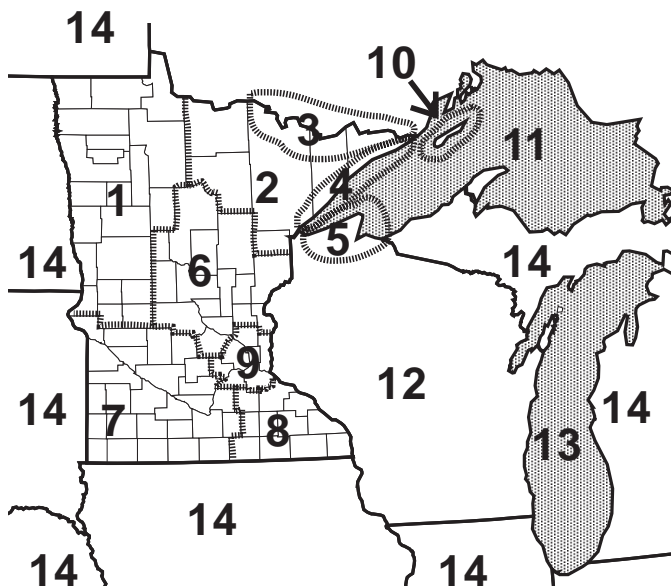
6e. How did you get onto the Minnesota waters of Lake Superior? (check all that apply)

- launched at a designated public access ramp
- launched from public land that was *not* a designated public access
- launched at a private (for-fee) access ramp at a marina/resort
- launched from private land
- boated out of a marina slip I rent along the Minnesota waters of Lake Superior
- boated into the Minnesota waters of Lake Superior from elsewhere
- other (please describe) \_\_\_\_\_

6f. What are your primary activities when you boat on the Minnesota waters of Lake Superior? (check all that apply)

- sailing       sail-boarding       cruising/boat ride       scuba diving
- canoeing       kayaking       jet skiing       swimming
- fishing (*IF FISHING, what type(s) of fish were you after? Please describe:*  
 \_\_\_\_\_)
- transportation to/from \_\_\_\_\_
- other (please specify) \_\_\_\_\_

**Boating Regions for Survey**



**Regions**

1. NW Minnesota
2. NE Minnesota
3. Border Lakes in US and Canada (including BWCA)
4. Minnesota waters of Lake Superior
5. Wisconsin waters of Lake Superior (includes Apostle Islands)
6. Central Minnesota
7. SW Minnesota
8. SE Minnesota
9. Twin City Metro Area
10. Near Isle Royale on Lake Superior
11. Remaining waters of Lake Superior
12. Remaining parts of Wisconsin
13. Lake Michigan
14. Any where else in the world

**SECTION 2 — Boating on Lake Superior**

7. Prior to receiving this survey, how much did you know about the program to construct safe harbors on the Minnesota shoreline of Lake Superior (a “safe harbor” is a protected location where boaters can safely retrieve a boat or be sheltered from a storm)? (check one)

- never heard of this program before
- didn't know very much
- knew a few things
- knew a lot

8. Have you ever boated on Lake Superior? (check one)

yes  no (IF NO, please skip to question 12 on the next page)

8a. How many years have you been boating on Lake Superior? \_\_\_\_\_ years

8b. In the last 12 months, did you ever take a Lake Superior boating trip that involved an overnight stay with your boat, including anchoring out, camping on shore with your boat, or staying at a transient slip in a marina? (check one)

- yes (IF YES, how many nights on such trips in the last 12 months? \_\_\_\_\_ nights)
- no

9. How concerned are you about being caught out on Lake Superior without a safe harbor nearby? (check one)

- not concerned
- slightly concerned
- somewhat concerned
- very concerned
- don't know

10. Have the safe harbors that have been built on Lake Superior allowed you to boat more often or travel further on the Lake? (check one)

- yes
- no
- don't know

11. Do you think additional safe harbors are needed on Lake Superior? (check one)

- yes
- no
- don't know

11a. (IF YES) Where are they needed? (describe locations)

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12. Please answer the following questions even if you have not boated on Lake Superior.  
Think about using the Minnesota waters of Lake Superior, and tell us how much you agree or disagree with the following statement:

***I haven't boated (or haven't boated more often) on the Minnesota waters of Lake Superior because . . .***  
(Circle one response for each)

	Strongly disagree	Moderately disagree	Neither agree nor disagree	Moderately agree	Strongly agree	Don't know
. . . I already do enough boating on Lake Superior	SD	MD	N	MA	SA	DK
. . . I don't have enough time to boat there as much as I would like	SD	MD	N	MA	SA	DK
. . . there are not enough safety patrol and water rescue services	SD	MD	N	MA	SA	DK
. . . it's too dangerous	SD	MD	N	MA	SA	DK
. . . there isn't enough good information on Lake Superior boating	SD	MD	N	MA	SA	DK
. . . there are not enough marinas with permanent slips, lodging, and food service	SD	MD	N	MA	SA	DK
. . . there are not enough marinas with transient slips	SD	MD	N	MA	SA	DK
. . . there are not enough boat-launching facilities	SD	MD	N	MA	SA	DK
. . . it is too expensive to boat there	SD	MD	N	MA	SA	DK
. . . other good places for boating are closer to home	SD	MD	N	MA	SA	DK
. . . there are not enough safe harbors (a protected place to escape bad weather)	SD	MD	N	MA	SA	DK
. . . even with more safe harbors, I would still be concerned about the danger of boating there	SD	MD	N	MA	SA	DK
. . . I enjoy boating from place to place, and destinations are too far apart there	SD	MD	N	MA	SA	DK
. . . the weather is unpleasant	SD	MD	N	MA	SA	DK
. . . my boat is too small	SD	MD	N	MA	SA	DK
. . . I lack the skills needed for Lake Superior boating	SD	MD	N	MA	SA	DK
. . . there are not enough charter/rental boats for fishing	SD	MD	N	MA	SA	DK
. . . there are not enough charter/rental boats for other purposes	SD	MD	N	MA	SA	DK
. . . the fishing is poor	SD	MD	N	MA	SA	DK
. . . I don't know enough about Lake Superior boating	SD	MD	N	MA	SA	DK
. . . there are too few other boats in the area to assist me if something goes wrong	SD	MD	N	MA	SA	DK
. . . there is too little to do, other than boating	SD	MD	N	MA	SA	DK



13. Would you like to boat (or boat more often) on the Minnesota waters of Lake Superior? (check one)  
 yes     no     don't know

***SECTION 3— Interest in taking overnight trips with your boat (being a transient boater)***

14. Have you ever taken overnight trips with your primary boat? (check one)  
 yes     no

14a. (IF NO) Do you have any interest in taking overnight trips with your primary boat?  
 (check one)  
 yes     no (IF NO, your survey is complete; please return it to us. Thank you.)

15. In your opinion, how desirable are the following destinations for an overnight boating trip?  
 (check one response for each location)

	Not desirable	Slightly desirable	Moderately desirable	Very desirable	Don't know
<b><u>Destinations for overnight trips</u></b>					
Apostle Islands area of Lake Superior in Wisconsin	ND	SD	MD	VD	DK
Duluth-Superior Harbor	ND	SD	MD	VD	DK
Minnesota North Shore waters of Lake Superior	ND	SD	MD	VD	DK
Michigan waters of Lake Superior	ND	SD	MD	VD	DK
Canadian waters of Lake Superior	ND	SD	MD	VD	DK
Isle Royale in Lake Superior	ND	SD	MD	VD	DK
Lake Michigan	ND	SD	MD	VD	DK
Lower St. Croix River (Lake St. Croix)	ND	SD	MD	VD	DK
Mississippi River from Minneapolis-St. Paul south	ND	SD	MD	VD	DK
Other desirable locations? (please describe) _____					

16. When you take an overnight boating trip, how important is it to have the following facilities and services available to you at a marina where you spend the night? (circle one response for each facility/service)

	Not important	Slightly important	Moderately important	Very important	Don't know
<b><u>Facility/service at the marina</u></b>					
sewage pumpout services	NI	SI	MI	VI	DK
boat repair services	NI	SI	MI	VI	DK
private restrooms and showers for marina patrons	NI	SI	MI	VI	DK
laundry facilities	NI	SI	MI	VI	DK
fuel pumps	NI	SI	MI	VI	DK
indoor place for boaters to relax	NI	SI	MI	VI	DK
drinking water connection dockside	NI	SI	MI	VI	DK
electricity connection dockside	NI	SI	MI	VI	DK
ship store	NI	SI	MI	VI	DK
knowledgeable marina operator(s) with whom to discuss boats and boating topics	NI	SI	MI	VI	DK
adequate security for me and my boat	NI	SI	MI	VI	DK
ability to make advance reservations for my boat	NI	SI	MI	VI	DK
ability to contact marina staff by radio with questions	NI	SI	MI	VI	DK
cell phone access	NI	SI	MI	VI	DK
cable TV connections	NI	SI	MI	VI	DK
internet access	NI	SI	MI	VI	DK
<b><u>Facility/service near the marina</u></b>					
places to shop for groceries	NI	SI	MI	VI	DK
retail shopping opportunities	NI	SI	MI	VI	DK
outdoor recreation opportunities	NI	SI	MI	VI	DK
entertainment opportunities	NI	SI	MI	VI	DK
lodging opportunities	NI	SI	MI	VI	DK
bicycle rental opportunity	NI	SI	MI	VI	DK
opportunities for sightseeing, visiting historic sites	NI	SI	MI	VI	DK
fishing opportunities	NI	SI	MI	VI	DK
restaurant opportunities	NI	SI	MI	VI	DK
shuttle or transportation service for shopping, restaurants and entertainment outings	NI	SI	MI	VI	DK
other important facility/service? (please describe) _____					

*Thank you for your input. Please place the survey in its envelope and drop it in the mail.*

Survey # \_\_\_\_\_

This survey number is only used to keep track of who has completed the survey and who has not. We will send replacement surveys to those who don't respond in three weeks. Your answers are strictly confidential and will never be associated with your name.