

## **INTRODUCTION**

Beginning in 1971, the Lake Minnetonka Conservation District (LMCD) has conducted an inventory of watercraft being stored at riparian residences and multiple dock facilities (including District Mooring Areas) on Lake Minnetonka. Since 1971, this project has been conducted during 27 different boating seasons, with the most recent inventory conducted during the 2006 boating season.

The purpose of this Report is to summarize the results of this project conducted in 2006. Three primary objectives were established for the 2006 Shoreline Storage Count. These include:

1. Establish the total number of watercraft stored in 2006.
2. Outline data collected from historical Shoreline Storage Counts.
3. Identify any observable trends from the Shoreline Storage data collected.

## **METHODOLOGY**

To ensure consistency and accuracy in the 2006 Shoreline Storage Count, LMCD staff established five parameters in which the storage inventory was conducted. Detailed below is a summary of these parameters.

1. Survey all 125 miles of lakeshore frontage on Mondays through Thursdays. To best represent when LMCD staff could count the maximum number of watercraft stored on Lake Minnetonka, hours for surveying purposes were historically set between 8:00 AM and 12:00 PM. However, the Board requested that staff implement a new program in which the shoreline count, multiple dock inspections, and increased documentation and communication on specific top code enforcement priorities be completed on a bay by bay basis. Due to combining the three programs, surveying hours increased to as late as 3:15 p.m. Friday was established as an alternative day when weather conditions were not favorable or for other reasons. No Fridays were utilized in 2006.
2. Fieldwork for this project was to be counted during the month of June, with a completion date of July 4th. These dates were selected to best represent when LMCD staff could count the maximum number of watercraft stored on Lake Minnetonka. In 2006, fieldwork for this project commenced on June 27th and was completed on August 30th. Although a good part of the fieldwork for the 2006 project took place after July 4th, LMCD staff believes this had little or no impact on the outcome of the project.
3. The count of watercraft stored on Lake Minnetonka was conducted by LMCD staff from the 19-foot runabout, which is owned by the LMCD.

4. A shoreline storage count worksheet was established to assist in conducting the fieldwork for this project. Ten classifications of watercraft were established on this worksheet to categorize each watercraft type. These watercraft classifications include: runabout, cruiser, sailboat, pontoon, houseboat, charterboat, fishing boat, personal watercraft (PWC), aircraft, and miscellaneous. Further definition of these watercraft classifications are outlined in Appendix A.
5. Identify the number of residences that have three boats or four boats stored within the authorized dock use area for these sites. Additionally, identify the number of residences that have empty slips within the authorized dock use areas for these sites. For this project, a slip was defined as “either a docking structure with three clearly defined sides or a boatlift”. The statistics for the number of residences that have three or four boats stored within the authorized dock use for these sites was limited to restricted watercraft only.

### **SUMMARY OF THE 2006 SHORELINE STORAGE COUNT**

The total number of watercraft stored on Lake Minnetonka in 2006 was 10,278. This further breaks down to 6,688 watercraft at riparian residences and 3,590 at multiple dock facilities (including District Mooring Areas). In 2006, there were 376 residences that had three restricted watercraft stored at the site, 269 residences that had four or more, and 490 empty slips were documented on a lake wide basis. Further analysis of watercraft storage at riparian residences, watercraft storage at multiple dock facilities, and sites with three or more watercraft storage, including empty slips is detailed below:

**Riparian:** Appendix B highlights the 6,668 watercraft stored at riparian residences in 2006. Of these 6,668 watercraft, approximately 57% were found to be in either the runabout or cruiser classification. Further breakdown of this figure indicates that 32% of the watercraft inventoried were runabouts and that 25% were cruisers. The lowest percent of watercraft stored at riparian residences were found to be in the houseboat, charter boat, and aircraft classifications, which totaled less than one percent. These percentages are slightly skewed because LMCD staff was unable to distinguish the watercraft inventoried, by classification, at riparian residences because of the Mound Commons Docking Program. Further details of this drawback are outlined below under “Multiple Docks”.

**Multiple Docks:** Appendix C highlights the 3,590 watercraft stored at multiple docks in 2006. Of these 3,590 watercraft, approximately 59% were found to be in the runabout and cruiser classification. Further breakdown of this figure indicates that 35% of the watercraft were runabouts and that 24% were cruisers. The lowest percentage of watercraft stored at multiple docks were houseboat, charter boat, and aircraft classifications, which totaled less than one percent. Again, these percentages are slightly skewed because LMCD staff was unable to distinguish the watercraft inventoried, by classification, at multiple dock facilities because of the Mound Commons Docking Program.

The City of Mound has communicated to LMCD staff that there were 543 watercraft, on 10 bays, stored at docks within the Mound Commons Docking Program in 2006. These bays are highlighted by an (\*) in Appendix B and C. Further breakdown of these 543 watercraft are detailed below:

Priests Bay	30	Emerald Lake	4
Cooks Bay	63	Seton Lake	31
West Upper Lake	4	Harrisons Bay	160
Phelps Bay	125	Jennings Bay	56
Black Lake	65	West Arm	5

This Report is accurate with regards to the total number of watercraft stored at riparian residences and multiple dock facilities in 2006. However, the breakdown of watercraft by classification for both riparian residences and multiple dock facilities is slightly skewed because the 543 associated with the Mound Commons Docking Program were not broken down into different watercraft classifications. This resulted in these 543 watercraft being broken down in the riparian residence classifications rather than the multiple dock facility classifications.

**Three Boats/Four Boats/Empty Slips:** Appendix D highlights the number of residences that had docks with three and four watercraft stored at these sites, along with empty slips. All of the watercraft highlighted in Appendix D were restricted watercraft. In 2006, there were 376 residences that had three watercraft stored at the site, 269 that had four, and 490 empty slips capable of storing restricted watercraft. This compares to the storing of restricted watercraft in 2004 of 398, 242, and 602, respectively. Comparing 2006 to 2004, there was no significant change in the number of residences that were storing three or more restricted watercraft. One observation that needs to be pointed out is that a high percentage of the residences that have three or more boats being stored show an increase of those boats being PWCs. Further breakdown of this category is detailed under “Conclusions/Trends.”

### **SUMMARY OF HISTORICAL SHORELINE COUNTS**

Appendix E highlights historical multiple dock/riparian shoreline counts conducted by the LMCD from 1971 to 2006. Since 1971, there have been only two other dates that have had numbers documented above the current total of 10,278 (10,475 in 1996 and 10,509 in 2002). Further discussion contributing to this increase in 2006 will be discussed later in the text under “Conclusions/Trends.”

## **CONCLUSIONS/TRENDS**

Based on data collected from the 2006 Lake Minnetonka Shoreline Storage Count, LMCD staff believes that there is one observable trend to point out. From 1998 to 2006, there has been a 19% increase in the number of watercraft inventoried through this project (8,605 in 1998 vs 10,278 in 2006). This increase is primarily due to the 25% increase in the number of watercraft inventoried at riparian residences (5,347 in 1998 vs 6,688 in 2006). Two large increases during this time period include: 1) a 105% increase in PWC category (1,223 in 2006 vs 596 in 1998), and 2) a 14% increase in the runabout/cruiser categories 3,837 in 2006 vs 3,372 in 1998.

Based on the historical data outlined, it is the recommendation of staff that the next Shoreline Inventory Report remain as scheduled in 2008.