

2000 Lake Minnetonka Shoreline Storage Count

INTRODUCTION

The Management Plan for Lake Minnetonka, adopted in December of 1991, has established Lake Use Objectives for Lake Minnetonka. Beginning in 1992, and every other year thereafter, one of these objectives is to measure watercraft density and the distribution of beached and rafting watercraft on Lake Minnetonka. In compliance with this objective, Lake Minnetonka Conservation District (LMCD) staff has conducted a Shoreline Storage Count for watercraft stored on Lake Minnetonka in 2000.

Three primary objectives were established for the 2000 Shoreline Storage Count. They include:

1. Establish the total number of watercraft stored in 2000.
2. Outline data collected from historical Shoreline Storage Counts.
3. Identify any observable conclusions and trends from the Shoreline Storage data collected.

METHODOLOGY

To ensure consistency and accuracy in the 2000 Shoreline Storage Count, LMCD staff established parameters in which the storage inventory was to be conducted. Detailed below is a summary of these parameters.

1. Survey all 125 miles of lakeshore frontage on Mondays through Thursdays, between the hours of 7:30 AM and 12:00 PM. This time has been selected to best represent when observers could count the maximum number of watercraft stored on Lake Minnetonka. Friday was established to be an alternative day when weather conditions were not favorable.
2. In 1998 and 1999, the count was conducted during the month of June with a completion date prior to July 4. In 2000, the count originated on July 6 and concluded on August 8.
3. The watercraft count was to be conducted by LMCD staff from the 18 foot runabout owned by the District.
4. A shoreline storage count worksheet was established to assist in conducting the shoreline storage inventory. Ten classifications of watercrafts 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 defined in Appendix A.
5. Residences that had docks with 3 boats, 4 boats, and empty slips were also identified in 2000. In this Report, a slip was defined as either a docking structure with three clearly defined sides or a boat lift. In 1999, the category of 3 and 4 boat docks represented residences that had docks with 3 or 4 restricted or unrestricted watercraft storage. In 2000, the numbers under this category represent only restricted watercraft storage.

SUMMARY OF THE 2000 SHORELINE STORAGE COUNT

The total number of watercraft stored, beached or rafting on Lake Minnetonka for 2000 was 9,519. Appendix B highlights this figure and provides a breakdown, by watercraft classification and bay. Further analysis indicates that 5,721 watercraft were stored at riparian residences and that 3,798 watercraft were stored at multiple dock facilities. Results indicate that over 63% of the watercraft counted on Lake Minnetonka were either found in the runabout or cruiser classification. The lowest percent of watercraft stored on the lake were classified in the houseboat, charter boat and aircraft classifications with less than 1%.

Appendix B highlights the 5,721 watercraft stored at riparian residences in 2000. Approximately 66% of the watercraft stored on riparian shoreline were found to be in either the runabout or cruiser classification. Further breakdown of this figure indicates that 46% of the watercraft inventoried were runabouts and that 20% were cruisers. The lowest percent of watercraft stored at riparian residences were found to be in the houseboat, charter boat, and aircraft classifications, which total less than 1%. These percentages are slightly skewed because LMCD staff was unable to distinguish the watercraft counted, by classification, at riparian residences because of the Mound Commons Docking Program. Further details of this drawback are discussed later in the text.

Appendix C highlights the 3,798 watercraft stored at multiple docks in 2000. Approximately 57% of watercraft stored at multiple docks were found to be in the runabout and cruiser classification. Further breakdown of this figure indicates that 33% 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 total less than 1%. Again, these percentages are slightly skewed because District staff was unable to distinguish the watercraft counted, by classification, at multiple dock facilities because of the Mound Commons Docking Program.

The City of Mound indicated to District staff that 574 watercraft, on ten bays, were located at the Mound Commons Docks in 2000. These bays are highlighted by an (*) in Appendix B and C. Further breakdown of these watercraft are detailed below:

• Priest Bay	13
• Cooks Bay	81
• Phelps Bay	118
• Spring Park Bay	12
• Black Lake	74
• Emerald Lake	4
• Seton Lake	26
• Harrisons Bay	165
• Jennings Bay	40
• West Arm	41
TOTAL	574

Because this documentation was provided by the City of Mound, the Report is accurate with regards to total riparian and multiple dock watercraft inventoried in 2000. The drawback is that these 574 watercraft were not broken down by watercraft classification by the City of Mound.

The end result is that these 574 watercraft are documented in the riparian storage classification count rather than the multiple dock storage classification count.

Appendix D highlights residences that had docks with 3 boats, 4 boats, and empty slips. In 2000, there were 355 residences that had 3 boats stored at the dock, there were 186 residences that had 4 boats stored at the dock, and there were 254 empty slips. Again, the 3 and 4 boat dock category in 2000 represented unrestricted watercraft. In 1999, this category represented both unrestricted and restricted watercraft stored at residences around the lake.

SUMMARY OF HISTORICAL SHORELINE COUNTS

Appendix E highlights historical shoreline storage counts from 1971 to 2000. Watercraft identified in these historical counts ranged from a low of 5,245 in 1971 to a high of 10,475 in 1996. In 1996, this project was conducted by Clear Air, Inc. utilizing an aerial survey.

CONCLUSIONS /TRENDS

Based on the data collected from the 2000 Lake Minnetonka Shoreline Storage Count, LMCD staff believes that conclusions and trends can be further evaluated into three separate categories. They include analyzing overall watercraft storage, analyzing 3Boat/4 Boat storage, and analyzing storage on a bay by bay basis. Further evaluation of these categories is detailed below.

Overall Watercraft Storage

Watercraft storage increased 8% from 8,797 in 1999 to 9,519 in 2000. The largest increase was in PWC's from 639 in 1999 to 811 in 2000, a 27% increase. The runabout and cruiser categorizes increased from 5,380 to 5,964 in 2000, an 11% increase. Staff combined these two categories because it is difficult, at times, to distinguish between the two categories. One contributing factor to this increase is that runabouts and cruisers stored at the three licensed drystack facilities on the lake were not included in the 1999 Shoreline Storage Count. Sailboat storage increased from 719 in 1999 to 773 in 2000, an 8% increase. Pontoon storage increased slightly from 477 in 1999 to 490 in 2000, a 3% increase. Fishing boat storage decreased slightly from 785 in 1999 to 764 in 2000, a 3% decrease.

As highlighted above, there are three marina facilities on Lake Minnetonka that are licensed for "off-lake" storage or "drystacking". These three facilities include:

- North Shore Marina (Maxwell Bay) 72 BSU's
- Rockvam Boatyards (West Arm) 125 BSU's
- Tonka Bay Marina (Echo Bay) 54 BSU's

Further evaluation of how these facilities affected the 2000 Shoreline Storage Count are detailed in the "Bay by Bay Storage" category.

3 Boat/4 Boat Storage

The number of residences with three and four restricted watercraft stored at their dock have significantly increased from 447 in 1999 to 541 in 2000, a 21% increase. Staff needs to point out that this increase is even more significant because unrestricted watercraft were included in this category in the 1999 Shoreline Storage Count. Staff believes there are two ways to address this increase. First, the Board could direct staff to take a more proactive approach to evaluate whether these sites comply with LMCD Code relating to boat storage and ownership of watercraft. In order to accomplish this, there would probably be a need to increase LMCD staffing levels. Second, the Board could evaluate LMCD Code relating to boat storage and ownership of watercraft to determine whether any changes should be made to it. Currently, staff evaluates these situations on a public inquiry or complaint basis.

Bay by Bay Storage

In general, staff believes that shoreline storage around the lake has remained relatively constant, with four exceptions. These exceptions in shoreline storage were observed in West Arm, Maxwell Bay, St. Albans/Excelsior Bay, and Echo Bay. Further details of these exceptions are detailed below:

- In West Arm, the storage of watercraft at licensed multiple dock facilities from 177 in 1999 to 284 in 2000, a 60% increase. Staff believes this is attributed to the 119 BSU's that were being drystacked at Rockvam Boatyards during the 2000 boating season. The storage of watercraft at riparian residences in this bay increased from 467 in 1999 to 612 in 2000, a 31% increase. Staff cannot provide an explanation for this significant and believes it should be further evaluated during the 2001 boating season.
- In Maxwell Bay, the storage of watercraft at licensed multiple dock facilities increased from 157 in 1999 to 212 in 2000, a 35% increase. Staff believes this is attributed to the 59 BSU's that were being drystacked at North Shore Marina during the 2000 boating season.
- In St. Albans Bay, the storage of watercraft at licensed multiple dock facilities decreased from 348 in 1999 to 271 in 2000, a 28% decrease. In Excelsior Bay, the storage of watercraft at licensed multiple dock facilities increased from 59 in 1999 to 180 in 2000, a 205% increase. The City of Excelsior and Cochrane's Boat Yards have docking on both bays. Staff believes that in 1999 Shoreline Storage Count, the boats associated with these multiple dock facilities were reported entirely in St. Albans Bay.
- In Echo Bay, the storage of watercraft at licensed multiple dock facilities increased from 204 in 1999 to 302 in 2000, a 48% increase. Staff believes this can be attributed to two factors. First, the 54 BSU's that were being drystacked at Tonka Bay Marina during the 2000 boating season. Second, staff believes the 42 BSU's approved at Lindbo Landing were not included in the 1999 Shoreline Storage Count.