

**2008
LAKE
MINNETONKA**



**SHORELINE
BOAT STORAGE
COUNT**

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 28 different boating seasons, providing for inventorying even years only from 2000 forward.

The purpose of this Report is to summarize the results of this project conducted in 2008. Three primary objectives were established for the 2008 Shoreline Storage Count. These include:

1. Establish the total number of watercraft stored in 2008.
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 2008 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. As of 2006, the Board requested that staff implement the Proactive Code Enforcement Program in conjunction with the Shoreline Boat Storage Count on a bay-by-bay basis. Due to combining the two programs, surveying hours increased to as late as 4:00 p.m. Friday was established as an alternative day when weather conditions were not favorable or for other reasons. No Fridays were utilized in 2008.
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. Due to combining the two programs, surveying dates expanded to the end of July. In 2008, fieldwork for this project commenced on June 9th and was completed on July 22nd. Although a good part of the fieldwork for the 2008 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 area for these sites was limited to restricted watercraft only.

SUMMARY OF THE 2008 SHORELINE STORAGE COUNT

The total number of watercraft stored on Lake Minnetonka during the 2008 boating season was 10,233. This further breaks down to 6,400 watercraft at riparian residences and 3,833 at multiple dock facilities (including District Mooring Areas). In 2008, there were 332 residences that had three restricted watercraft stored at the site, 188 residences that had four or more, and 1,102 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 6,400 watercraft stored at riparian residences in 2008. Of these 6,400 watercraft, approximately 51% were found to be in either the runabout or cruiser classification. Further breakdown of this figure indicates that 27% of the watercraft inventoried were runabouts and that 24% 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.

Multiple Docks: Appendix C highlights the 3,833 watercraft stored at multiple docks in 2008, including the Mound Commons Docking Program. Of these 3,833 watercraft, approximately 53% were found to be in the runabout and cruiser classification. Further breakdown of this figure indicates that 30% of the watercraft were runabouts and that 23% were cruisers. The lowest percentage of watercraft stored at multiple docks were 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 multiple dock facilities because of the Mound Commons Docking Program.

The City of Mound has communicated to LMCD staff that there were 542 watercraft, on 10 bays, stored at docks within the Mound Commons Docking Program in 2008. These

bays are highlighted separately in Appendix B and C. Further breakdown of these 542 watercraft are detailed below:

Priests Bay	29	Emerald Lake	5
Cooks Bay	64	Seton Lake	32
West Upper Lake	4	Harrisons Bay	170
Phelps Bay	114	Jennings Bay	58
Black Lake	61	West Arm	5

This Report is accurate with regards to the total number of watercraft stored at riparian residences and multiple dock facilities in 2008. However, the breakdown of watercraft by classification for multiple dock facilities is slightly skewed because the 542 associated with the Mound Commons Docking Program were not broken down into different watercraft 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 2008, there were 332 residences that had three watercraft stored at the site, 188 that had four, and 1102 empty slips capable of storing restricted watercraft. This compares to the storing of restricted watercraft in 2006 of 376, 269, and 490, respectively. Comparing 2008 to 2006, there was a 19% decrease in the number of residences that were storing three or more restricted watercraft.

SUMMARY OF HISTORICAL SHORELINE COUNTS

Appendix E highlights historical multiple dock/riparian shoreline counts conducted by the LMCD from 1971 to 2008. In 2008, LMCD staff documented 10,233 watercraft on Lake Minnetonka. Since 1971, there have been only three additional Shoreline Boat Storage Counts where the total number of watercraft exceeded 10,000 (10,278 in 2006, 10,475 in 1996, and 10,509 in 2002).

CONCLUSIONS/TRENDS

Based on data collected from the 2008 Lake Minnetonka Shoreline Storage Count, there was no apparent increases from 2006. This might have been attributed to the economy. From 1998 to 2006, there was a 19% increase in the number of watercraft inventoried through this project (8,608 in 1998 vs 10,278 in 2006). This increase was 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 included: 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 2010.

Watercraft Classification Definitions (Appendix A)

- **Runabout-** single hull-pointed bow, tri-hull-blunt bow, hull may be partially covered, windshield often visible. These boats are usually over 16 feet in length, and powered by a 10 horse power motor or more.

- **Cruiser-** super structure, flying bridge, two windshields usually visible, hull mostly covered. This craft usually has sleeping accommodations.

- **Sailboat-** sails often visible, single hull-long slender shape, catamaran-twin hulls visible.

- **Pontoon-** rectangular shape, outboard motor, pontoons extend beyond the platform. These boats are often seen with a colorful canvas top.

- **House Boat-** relatively large, rectangular shape, with blunt rounded bow. This superstructure is sometimes present.

- **Charter Boat-** excursion or party boats that are licensed by LMCD.

- **Fishing Boat-** any boat 14 feet or longer, used for fishing. This craft is usually out-rigged with special fishing equipment.

- **Personal Watercraft (PWC)-** is a watercraft less than 14 feet in length, which uses a motor powering a water jet pump. This water jet pump is its primary source of motive power. This craft is designed to be operated by a person in the sitting, standing or kneeling position, rather than in the conventional manner such as sitting or standing inside the watercraft.

- **Aircraft-** any contrivance invented or designed for navigation or flight in the air. The term includes aircraft equipped with floats or skis.

- **Miscellaneous-** This designation of watercraft includes any craft other than rowboats, 16 feet or less in length. Miscellaneous watercraft are usually unmotorized, or sometimes equipped with motors of 10 hp or less. Some examples of this miscellaneous watercraft are canoes, wet sailboards and paddleboats.

2008 Docks with 3 and 4 Boats and Empty Slips (Appendix D)

	3 Boats	4 Boats	Empty Slips
1. Halstead Bay	12	5	44
2. Priest Bay	6	2	31
3. Cooks Bay	15	3	47
4. West Upper Lake	13	9	53
5. South Upper Lake	14	10	67
6. Smithtown Bay	4	4	25
7. Phelps Bay	8	8	20
8. East Upper Lake	15	12	34
9. Carman Bay	8	6	18
10. Old Channel Bay	4	3	9
11. Spring Park Bay	5	3	28
12. Black Lake	7	1	5
13. Emerald Lake	4	0	3
14. Seton Lake	4	3	6
15. Harrisons Bay	13	9	34
16. Jennings Bay	23	17	33
17. West Arm	27	17	50
18. Forest Lake	12	6	15
19. Coffee Cove	6	3	7
20. Crystal Bay, West	16	13	29
21. Crystal Bay, East	9	5	13
22. North Arm	15	6	28
23. Stubbs Bay	5	5	11
24. Maxwell Bay	5	3	20
25. Lafayette Bay	10	1	54
26. Smiths Bay	1	0	9
27. Tanager Lake	0	0	7
28. Browns Bay	2	1	27
29. Wayzata Bay	16	7	54
30. Grays Bay	5	1	19
31. Libbs Lake	7	4	15
32. Robinsons Bay	0	1	8
33. St. Louis Bay	1	0	12
34. Carsons Bay	6	3	22
35. St. Albans Bay	10	2	27
36. Excelsior Bay	0	0	2
37. Gideons Bay	7	2	69
38. Echo Bay	2	3	35
39. Big Island Passage	0	0	4
40. Veterans Bay	0	0	8
41. Lower Lake South	5	3	32
42. Lower Lake North	10	7	68
Total 2008	332	188	1102

Historical Multiple and Riparian Shoreline Storage Count (Appendix E)

Year	Runabout	Cruiser	Sailboat	Pontoon	Houseboat	Charter	Fishing	PWC	Aircraft	Misc.	Mound Docking	Total*
2008	2,875	2,399	693	521	12	22	768	1062	2	1337	542	10233
2006	3436	2546	629	574	20	17	995	1277	0	784		10278
2004	2734	2900	655	557	17	15	986	1015	1	854		9734
2002	2842	3135	728	560	24	30	1007	1086	8	1089		10509
2000	3867	2097	773	490	25	29	764	811	4	659		9519
1999	3788	1592	719	477	31	26	785	639	2	738		8797
1998	3269	1917	720	461	32	20	732	644	4	809		8608
1996	2907	3117	1021	413	48	26	1135	796	4	1008		10475
1994	2629	2812	874	439	47	26	1202	448	8	875		9360
1993	3056	2016	839	381	40	24	1263	318	6	912		8855
1992	2836	2117	840	386	35	25	1245	273	9	881		8647
1991	3258	1350	890	349	37	25	1210	243	8	700		8070
1990	1606	2206	784	304	44	0	824	157	4	720		6649
1989	1653	2568	748	260	62	0	806	0	7	707		6811
1988	1983	2876	966	236	70	0	816	0	5	567		7519
1987	2134	2771	1064	239	61	0	1009	0	5	723		8006
1986	2512	2816	1238	286	99	0	1047	0	3	795		8796
1985	2882	2186	1056	271	104	0	1022	0	3	644		8168
1984	2638	2153	1182	321	94	0	1075	0	4	724		8191
1983	2930	1958	1207	326	89	0	906	0	5	416		7837
1982	2607	1699	1294	351	91	0	1106	0	5	297		7450
1981	2519	1765	1512	342	105	0	848	0	4	681		7776
1980	2632	1630	1135	394	118	0	511	0	5	483		6908
1979	2694	1549	1372	391	113	0	995	0	5	543		7662
1975	3259	1074	1648	448	156	0	1621	0	0	917		9123
1974	3309	872	1288	557	147	0	1850	0	0	903		8926
1973	1543	528	984	506	101	0	1543	0	0	609		5814
1971	1620	320	535	364	91	0	1326	0	0	255		4511

* City of Mound Boat Count Included