

2023 Saratoga Lake Boat Census Summary
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On-Lake Boating Annual Census

SLPID has been actively monitoring the number and type of boats using Saratoga Lake since 2016. The 2023 Saratoga Lake boat census was conducted on Sunday, July 23, 2023, from 12:20 -2:30 pm in sunny, 86-degree weather under a light breeze. The annual boat count is typically conducted when boating is at its highest point. This usually occurs on a fair-weather weekend day in July before track season starts. However, due to poor weather conditions during early July weekends, boating was significantly depressed. Even though the count was conducted on July 23rd, it should be noted that there were several weekends in August that were observed to be considerably busier.

For consistent counting purposes, the lake was divided into 8 geographic zones. Boats were counted by category: active (motorized), anchored (motorized), and non-motorized (all types). Boats moored or parked at private or commercial docks were not counted as part of this effort but are reported in this report as a separate effort. Table 1, “On-Lake Boat Count Summary by Zone,” summarizes the total number of boats by type and activity for the eight zones.

TABLE 1 ON-LAKE BOAT SUMMARY BY ZONE 2023						
Zone	Location	Motor Boats Moving	Motor Boats Anchored	Jet Skis	Canoes/ Kayaks/ Sups/ Sailboats	Totals
1	Browns Beach to Snake Hill	24	-	1	-	25
2	Snake Hill to Maple Shade	23	-	2	-	25
3	Maple Shade to Cedar Bluffs	9	-	-	-	9
4A	9P Bridge to Kayaderosseras Creek	37	-	-	18	55
4B	Cedar Bluffs to 9P Bridge	23	-	10	2 & 1 Sail	36
5	9P Bridge to SLPID Boundary	3	-	-	-	3
6	Kayaderosseras Creek to Riley Cove	20	93	-	11	124
7	Riley Cove to Browns Beach	19	-	2	-	21
	TOTALS	158	93	15	32	298

Table 2 compares the total boat count numbers over the 8 years of boat counts. The numbers show a fair amount of consistency except for 2020 and 2022 which were indicative of the pandemic years.

TABLE 2 TOTAL BOAT COUNT COMPARISON 2016-2022								
2016	2017	2018	2019	2020	2021	2022	2023	8-Year Average
342	368	338	341	527	258	543	298	377

Table 3 shows how boats were distributed throughout the zones for the years 2016, 2018, 2022, and 2023. The highest variations occur in the vicinity of the 9P Bridge and Riley Cove.

TABLE 3 ON-LAKE BOAT DISTRIBUTION BY ZONE 2016 - 2022											
ZONE	LOCATION	Active Motorized Boats					Anchored Motorized Boats				
		2016	2018	2020	2022	2023	2016	2018	2020	2022	2023
1	Browns Beach to Snake Hill	12	15	16	71	24	1	13	7	32	0
2	Snake Hill to Maple Shade	57	12	9	24	23	0	12	43	20	0
3	Maple Shade to Cedar Bluffs	14	6	9	10	9	1	0	8	12	0
4A & 4B	Cedar Bluffs and Kayaderoseras Creek to 9P Bridge	31	57	27	28	60	1	3	9	3	0
5	9P Bridge to SLPID Boundary	5	10	67	45	3	1	8	13	0	0
6	Kayaderoseras Creek to Riley Cove	37	16	39	63	20	88	101	137	124	93
7	Riley Cove to Stony Point	25	33	34	27	19	14	19	58	17	0
	TOTAL	181	149	201	268	158	106	156	275	208	93

At-Dock and On-Land Boat Counts

In 2000, SLPID began an annual boat count of the number of boats that are inactive and docked in the water or dry-docked at both commercial marinas and residential properties. These counts are conducted on cloudy weekdays when boat traffic is light and most resident boats are at dock.

The information presented in Table 4 below estimates there were an estimated 2,574 boats (motorized and nonmotorized) counted at all residential and commercial properties. Approximately 1,615 were motorboats, 246 jet skis, and 713 non-motorized boats. Approximately 52% of all boats were located at commercial marinas and 48% at private properties.

The majority of the motorboats are kept at Point Breeze Marina, South Shore Marina, Lee’s Campground, and Brown’s Beach Marina. Most of the kayaks are rentals at The Kayak Shak. As expected, most sailboats are kept at Saratoga Lake Sailing Club. The highest number of total boats are found in the Town of Saratoga. The Town of Malta has approximately 49% of all jet skis on the lake.

TABLE 4 AT-DOCK/ON-LAND BOAT COUNT SUMMARY BY MUNICIPALITY 2023			
	Commercial	Private	Total
TOWN OF SARATOGA			
Motorized	427	152	579
Motorboats	411	107	518
Jet Skis	16	45	61
Non-Motorized	161	91	252
TOWN OF STILLWATER			
Motorized	125	207	332
Motorboats	116	169	285
Jet Skis	9	38	47
Non-Motorized	16	119	135
TOWN OF MALTA			
Motorized	46	477	523
Motorboats	45	357	402
Jet Skis	1	120	121
Non-Motorized	45	146	191
CITY OF SARATOGA SPRINGS			
Motorized	384	43	427
Motorboats	376	34	410
Jet Skis	8	9	17
Non-Motorized	120	15	135

A separate boat count generated at the State Boat Launch by the Lake Stewards. According to the SLPID records, there were a total of 85 boats checked in and surveyed by the Lake Stewards on July 23rd. These included 80 motorboats and 5 PWCSs. This count did not include the boats that did not elect to stop at the boat inspection checkpoint.

Carrying Capacity of Saratoga Lake

Saratoga Lake is a finite resource that is in high demand. As residential development and public access increase, boating and other on-lake recreational activities increase as well. This increased use, coupled with increases in boat size and speed, has made lake over-crowding an issue for many lakes. Balancing lake use with ecological, economical, and aesthetic impacts is paramount in arriving at balanced and sustainable use levels.

Many factors influence the estimation of a lake’s recreational carrying capacity. These include the physical characteristics of the lake (size, shape, depth, shoreline development), the lake’s use characteristics (the number of lakeside homes, number of moored and off-lake boats, and number of launch sites. These factors are taken into consideration for the carrying capacity analysis.

Saratoga Lake has approximately 4,000 acres of surface water. An estimated 800 acres has been subtracted out where it is either too shallow or too weedy for boats to navigate freely, and areas where boat speed is restricted. The remaining 3,200 acres is conservatively be considered navigable. Utilizing a factor of 12 acres per boat to determine safe carrying capacity (a typical average that considers all boat activities), the maximum total number of boats recommended on the lake at any one time is 267 boats. This calculation includes boats that are actively cruising. Anchored boats are generally left out of the equation since they are not using up a lot of lake surface real estate. Kayaks and other small boats are also omitted since they are mostly clustered in the speed restricted zones or near the shoreline.

Recreational boating is dynamic, and activity is weather dependent, has timing constraints related to fishing or the type of boating activities, types of boats, and skill of boaters. During each of the survey years, when considering all boats on the lake, Saratoga Lake reaches carrying capacity during mid-day when the weather is good. The lower number of recreational boaters found on the lake in 2023 when the air temperature was lower shows the importance of weather.

An analysis of boat traffic on the lake on 7/23/23 yielded a total of 173 active (moving) motorboats and jet skis on the Saratoga Lake. Applying 3,200 acres of usable lake surface area yields a general boat density of approximately 18 acres per boat. While this is within the comfortable carrying capacity of Saratoga Lake, there are times when the lake will seem too crowded, especially at peak times of the day for rafting and when the weather changes rapidly, and all are heading for shore. Table 5 shows the 8-year trend of boats and relative carrying capacity on Saratoga Lake from 2016-2023.

TABLE 5 MOTORBOAT CARRYING CAPACITY ON SARATOGA LAKE 2016-2023		
	Active Motorboats	Acres Per Boat
2016	181	18
2017	112	28
2018	149	21
2019	183	18
2020	201	16
2021	183	18
2022	268	12
2023	173	18
8-Year Average	181	17

2023 Findings

Based upon data collected annually on boating activity on Saratoga Lake since 2016 recreational boating appears to be stable and generally safe. There are times when the lake will seem too crowded, especially at peak times of the day for mooring and, when the weather changes rapidly, and all are heading for shore. In addition, there is the onshore capacity at local docks and marinas for many more boats to be out on the lake at one time. At-shore surveys show only about one-third of the boats are out on the lake at any one time. Should this factor change, it would dramatically alter the safety factor of recreational boating.

2023 Boat Zone Map

