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**2020 Boat Census Survey Report**

**Summary**

In order to maintain the lake’s carrying capacity, boat census data is recorded and analyzed every year. During 2020, we were unsure how many people would flock to the lake considering there were very few options for public activities this spring and summer.

**Introduction**

The Lake Ripley Management District conducted a boat census survey during the 2020 boating season. This year was unpredictable; we were unsure how popular the lake would become due to Covid-19 restrictions on various activities. We had several different boating observers that recorded data at different times of the day and from different locations around the lake. The monitoring began in late April and concluded in the middle of October.

Conducting a boat census survey provides the District with different types of data, including: what type of boats frequent the lake, approximately how many boats are on the lake at one time, what days the lake is most utilized and other data pertaining to lake use. Based upon the data that is collected, we are able to suggest rules and ordinances that will ensure the safe, practical use of Lake Ripley.

**Methods**

Data collectors were given identical data collection sheets that they used throughout the season. The collectors recorded the data whenever they were on the lake, passing the lake, or working. The data sheets were set up for them to record: observer location, date, day of the week, time, precipitation, air temperature, wind strength, cloud cover, surface choppiness, number of vehicles at the public landing, number of speed boats, number of pontoon boats, number of fishing boats, number of personal watercrafts (jet skis), number of sailboats, number of canoes, kayaks, or row/stand-up boards, number of stationary or slow-moving boats, number of fast-moving boats, and the number of skiers/tubers.

Data was collected randomly. Certain watercraft counts may be under-represented due to: 1) difficulty of identifying small paddle-craft and fishing boats obscured by structures close to shore and 2) difficulty seeing remote corners of the lake from certain vantage points.

The observers included our previous lake manager, field researchers, Clean Boats, Clean Waters representative, and two local residents. With binoculars, the observers would record all boating activity they saw.

**Results**

The data collected during 2020 is summarized in the following tables. The data is organized to compare all data[[1]](#footnote-1) to weekends only in July and August, July/August weekends to weekdays and to compare lake usage during wake and no-wake time periods on Lake Ripley.

**Table 1:** All Data versus July/August Weekends Lake Usage on Lake Ripley 2020

|  |  |  |
| --- | --- | --- |
| Observation | All Data | July/August Weekends |
| Total on-lake boat counts | 309 | 111 |
| Total public landing trailer counts | 280 | 103 |
| Avg. # of trailers at landing | 7.8 | 7.5 |
| Avg. # of trailers (weekday) | 3.8 | 4.3 |
| Avg. # of trailers (weekend) | 8.9 | 9.5 |
| Max. # of trailers on one day | 24 | 24 |
| Avg. % utilization of public access | 52.3 | 49.7 |
| Avg. % utilization (weekday) | 25.2 | 29.0 |
| Avg. % utilization (weekend) | 59.6 | 63.2 |
| Max. # of watercraft on lake | 41 | 41 |
| Max. # of watercraft on lake (weekday) | 34 | 34 |
| Max. # of watercraft on lake: (weekend) | 41 | 41 |
| Avg. # of watercraft on lake | 11.9 | 12.7 |
| Avg. # of watercraft (weekday): | 7.8 | 8.8 |
| Avg. # of watercraft (weekend): | 14.0 | 15.7 |

**Table 2:** Comparison of Lake Usage for July/August Weekdays versus Weekends and Wake versus No-wake (data is continued next page)

|  |  |  |
| --- | --- | --- |
| Observation | All Data | July/August |
| All July/August Data | Weekday | Weekends |
| Avg. # boats during no-wake hrs | 6.6 | 5.9 | 5.0 | 7.2 |
| Avg. # boats during wake hrs | 14.1 | 15.3 | 10.9 | 17.8 |
| Avg. # trailers during no-wake hrs | 7.0 | 5.9 | 2.9 | 8.8 |
| Avg. # of trailers during wake hrs | 8.0 | 7.9 | 5.0 | 9.6 |
| Observation | All Data | July/August |
| All July/August Data | Weekday | Weekends |
| Max. # of fast-moving watercraft | 23 | 23 | 14 | 23 |
| Avg. # skiers/tubers (wake only) | 1.5 | 1.9 | 2.0 | 2.7 |
| Max. # of skiers/tubers (wake only) | 8 | 8 | 8 | 7 |
| % speed boats | 20.2 | 22.4 | 16.8 | 24.9 |
| % pontoon boats | 24.1 | 25.2 | 22.1 | 26.4 |
| % fishing boats | 30.5 | 26.1 | 37.0 | 21.2 |
| % Personal Watercraft | 14.2 | 14.9 | 13.4 | 15.3 |
| % sailboats | 0.9 | 0.8 | 0.5 | 0.9 |
| % paddle boats | 10.1 | 9.8 | 6.6 | 11.0 |
| % fast moving | 18.4 | 19.7 | 17.9 | 20.0 |
| % stationary or slow moving | 68.3 | 65.0 | 64.2 | 63.6 |
| % skiers/tubers | 18.4 | 12.9 | 12.2 | 12.8 |
| % speed boats during no-wake | 0.9 | 0.8 | 1.1 | 0.6 |
| % speed boats during wake | 23.9 | 26.4 | 23.2 | 27.5 |
| % pontoon boats during no-wake | 10.7 | 10.9 | 8.1 | 13.9 |
| % pontoon boats during wake | 26.6 | 27.9 | 28.0 | 27.9 |
| % fishing boats during no-wake | 70.6 | 71.6 | 78.5 | 64.4 |
| % fishing boats during wake | 23.0 | 18.4 | 24.5 | 16.3 |
| % PWCs during no-wake | 0.9 | 0.5 | 1.1 | 0.0 |
| % PWCs during wake | 16.9 | 17.5 | 18.3 | 17.3 |
| % sailboats during no-wake | 2.1 | 2.2 | 1.1 | 3.3 |
| % sailboats during wake | 0.7 | 0.6 | 0.4 | 0.6 |
| % paddle boats during no-wake | 17.0 | 13.9 | 10.2 | 17.8 |
| % paddle boats during wake | 8.6 | 9.2 | 5.6 | 10.4 |
| Max. # speed boats at one time | 14 | 14 | 6 | 14 |
| Max. # pontoon boats at one time | 23 | 23 | 14 | 23 |
| Max. # fishing boats at one time | 20 | 14 | 9 | 14 |
| Max. # PWCs at one time | 15 | 15 | 9 | 15 |
| Max. # sailboats at one time | 2 | 2 | 2 | 2 |
| Max. # paddle boats at one time | 12 | 7 | 6 | 7 |
| Max. # fast moving at one time | 23 | 23 | 14 | 23 |
| Observation | All Data | July/August |
| All July/August Data | Weekday | Weekends |
| Max. # slow/stationary at one time |  | 28 | 25 | 28 |
| Max. # tubers/skiers at one time | 8 | 8 | 8 | 7 |

**Discussion**

Weekends versus Weekdays

Lake use by visitors (local or non-local) approximately doubles when comparing weekdays to weekends, with 25% and 60% of trailer spaces being utilized, respectively. The average number of watercrafts on the lake nearly doubles on weekends also, largely due to visitors. Overall, ½ of the boat traffic during the week is due to visitors and ⅔ of the boat traffic on the weekends is due to visitors, when comparing the number of total watercraft to the number of trailers parked at the boat launch. In conclusion, a significant amount of lake usage is by visitors both during the week and on weekends, and the number of trailer spots is sufficient to support the current visitor lake use on Lake Ripley.

Slow No-wake versus Wake

The overall lake usage more than doubles during wake-hours. This pattern is observed for both weekdays and weekends in the context of the aforementioned greater lake usage during the weekends. The number of trailers at the boat launch is significantly higher during wake hours during the week but nearly the same on weekends. It’s important to note that the nature of usage shifts from no-wake to wake hours; it is a shift from mostly fishing boats to speed boats, from no-wake to wake hours. A similar pattern is seen in personal watercraft use versus paddleboat use. No-wake hours have a relatively large number of paddle boats while wake-hours have more personal watercraft use. In conclusion, there is a shift from more stationary or slow-moving lake usage during slow no-wake hours to active or fast-moving lake usage during wake hours.

July 4th Weekend

The 4th of July was the busiest day of the year on Lake Ripley and has been for many years now. The busiest hour was around 3:00pm, with 24 trailers in the parking lot, 7 speed boats, 15 pontoon boats, 3 fishing boats and 15 personal watercrafts, for a total of 40 vessels on the lake. Of the 40 watercrafts, there were 21 total stationary or slow-moving watercraft and 19 fast moving watercrafts including 6 skiers/tubers. There were no paddle-boaters or kayakers during the afternoon of July 4th. A maximum of six were recorded prior to the start of wake hours.

**Recommendations**

Continue the monitoring effort to evaluate lake usage by residents and visitors, update the monitoring protocol to include trailer and boat counts at specified times and time intervals, enforce the 15 trailer limit at the boat launch parking area to avoid overuse on the 4th of July holiday and maintain the current strategy of slow no-wake and wake hours to accommodate all recreational uses on Lake Ripley.

1. “All data” includes July and August weekend data. [↑](#footnote-ref-1)