

Wasa Lake User Traffic Survey: Wasa Lake, B.C.



Prepared for: The Regional District of East Kootenay, Area E

Prepared by: Living Lakes Canada, February 2024

Project Summary

Wasa Lake, located within the Regional District of East Kootenay (RDEK), Electoral Area E, is one of the warmest swimming lakes in the Kootenays. It is bordered, in part, by Wasa Lake Provincial Park which hosts 104 campsites and a large day-use area on the lake. Wasa Lake typically sees a significant influx of recreational boaters and swimmers throughout the summer months (May - September). Vessels used on Wasa Lake include both power boats, such as wake boats or jet skis, as well as non-motorized craft, such as canoes and stand-up paddleboards (SUPs). At the request of the RDEK, Living Lakes Canada (LLC) has conducted a basic vessel / user survey to quantify the volume, frequency and type of vessel / user traffic on Wasa Lake during peak summer season. This survey will allow the RDEK to better understand the nature of the vessel / user traffic on Wasa Lake.

Wasa Lake is located at 49.7 N -115.7 W in Wasa, B.C. (pop. 335, 2016) in the East Kootenay region. The lake has an area of 1.15 km² and is ~2.3 km long and ~0.62 km wide at the widest point. There is one official public boat launch at Beechwood Rd, directly to the north of the Wasa Lake Park Campground with car parking and waterfront access to the lake. There is additional public access to Wasa Lake at both Main Beach and Horseshoe Beach in the provincial park at the north end of the lake as well as small access points at the end of Cedar Rd, Pine Rd and Spruce Rd. The lake has approximately 107 residential waterfront lots surrounding the lake, many of which have private docks for recreational use. Importantly, Wasa Lake has distinct geography that includes clear bays, channels and land spits that create natural features influencing the way that recreators use the lake. For example; during periods of low water levels, the northernmost area of Wasa Lake becomes a naturally protected bay, somewhat separated from the rest of the lake via a land spit that extends east to west from an obvious point at the southern end of Horseshoe Beach.

Visitors to Wasa Lake access the lake via parkland, public access beaches, the boat launch and private residences. The growing popularity of on-the-water recreation has resulted in an increased number of both motorized vessels (i.e., wake boats) and non-motorized vessels (i.e., SUPs, kayaks/canoes) using the same space as swimmers. Higher volumes of vessels result in increased interactions between users, which can often be viewed as negative by recreators. Negative interactions can include collisions / near collisions

between users through to damages to waterfront property and shoreline caused by excessive boat wake. The main vessel types that utilize Wasa Lake for recreation are: motorized vessels, including wake boats (which may or may not be used for towing sports), jet skis/sea-doos, sailboats, pontoon boats, small motorized pleasure craft, and non-motorized vessels including canoes, kayaks, small sailboats, and SUPs. Other users are mainly swimmers both inside and outside of the recommended swim zones as marked by white buoys.

Methodology

The survey of Wasa Lake utilized visual counting of vessels crossing designated lines of sight (sightlines) to establish user traffic frequency during multiple 1-hour time blocks on summer holiday weekends when user traffic is at its highest volume. Two vantage points were established, the first, Observation Point 1 (*Map 1*), at the south point of Horseshoe Beach to observe the northernmost section of the lake and Main Beach, and the second, Observation Point 2 (*Map 1*), at the boat launch at the end of Beechwood Rd, to observe the main body of the lake.. Each observation point observed two sightlines creating a transect across Wasa Lake (*see Map 1*):

- Sightline A, from Observation Point 1 to Main Beach.
- Sightline B, from Observation Point 1 directly across the narrow section of the lake to the west shore.
- Sightline C, from Observation Point 2 across to the point at the end of Perch Rd on the west shore.
- Sightline D, from Observation Point 2 to the mouth of Hanson Creek on the west shore.

The sightlines were chosen to most clearly observe traffic in the highest priority areas on the lake and where the most public access occurs. The beaches at the northern end of the lake, the Provincial Park campground and boat launch see high use and high vessel/recreation traffic. Observations in these areas establish a snapshot of the highest areas of motor vessel traffic as well as the highest areas of swimmers and paddlers (non-motorized vessel traffic) who may experience interactions with motor vessels.

On survey days, two surveyors at each observation point counted the number of vessel passes across each sightline for three one-hour blocks between the hours of 12 pm and 5 pm. All vessel passes were counted, including vessels passing sightlines multiple times, in order to establish a measure of frequency per hour as well as a daily total of vessel passes. Vessel type was recorded to best establish a picture of the distribution of motorized versus non-motorized vessels using the lake. Background information gathered for this survey indicated that motor vessels were of specific concern for this lake. While the category of 'wake boat' is of particular concern, the definition of a wake boat is broad and therefore

difficult to qualify accurately. The observation limitations of this land-based survey did not allow for precise surveying of the many motor boats types (i.e., wake boat, center console, runabout) from land. For this reason, this work categorized motorized vessels as having a “tow” or “no tow” (e.g., pulling a water skier, or not) to gain an understanding of the distribution of vessels being used for hi-speed, wake-creating tow activities, such as wakeboarding. The general understanding here is that many or most of the motor vessels with a tow would fall into the category of ‘wake boat’.

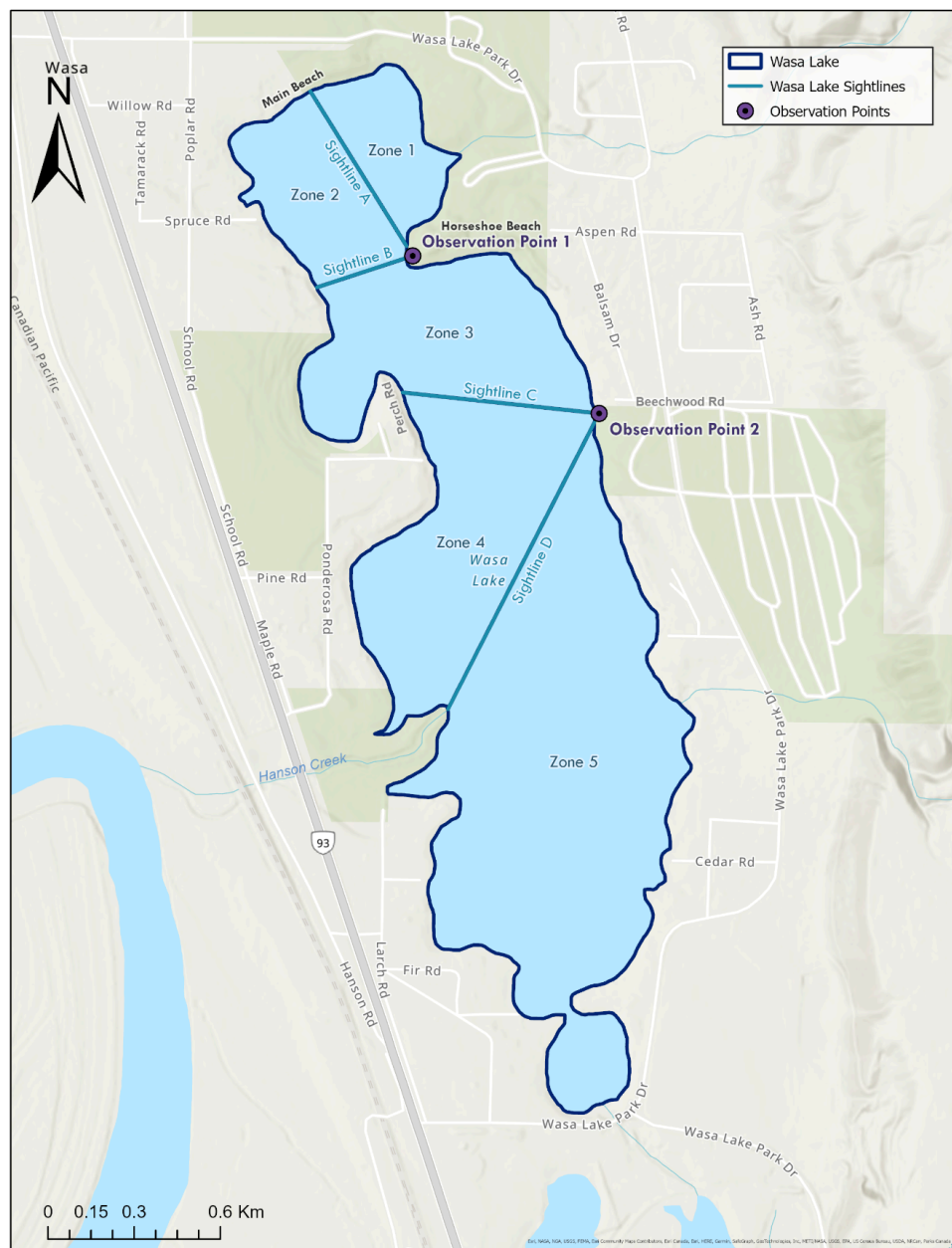
Parameters including wind and weather conditions were noted to account for external factors on vessel traffic (i.e., less traffic on a cold, windy day and more traffic on a warm, sunny day). Holiday long-weekend days were chosen for survey dates as historically these weekends have the highest volume of recreation and vessels on Wasa Lake. Surveys occurred on Saturday July 1st, Saturday August 5th, Sunday August 6th, Monday August 7th and Sunday September 3rd.

The surveyors stationed at the Beechwood Rd boat launch counted the number of boats launched and landed during the survey time slots as well as the number of empty trailers parked both in the boat launch parking lots as well as on the surrounding streets in order to gain a sense of the incoming and outgoing vessels using the boat launch area.

Map

Wasa Lake

Boat Count Sightlines - Summer 2023



Map 1: The key areas of interest for the user traffic survey on Wasa Lake, Wasa B.C., including Sightlines A - D and Zones 1- 5. Observation Points 1 and 2 denote where surveyors were stationed.

Data

A datasheet was compiled each survey day to track the number of vessels that passed each sightline. Three one-hour time blocks were used to best understand the distribution of vessel traffic over time. Weather and water conditions were recorded as a parameter that may affect overall vessel traffic volume. Table 1 demonstrates the data sheet format used on each survey day and the results recorded on the August 6th survey day. Table 2 illustrates the distribution of daily vessel pass totals for each of sightlines A - D on each of the survey days. The full survey data set can be referenced in Appendix A.

WASA LAKE			
Sunday, August 6th. BC Day Holiday Long Weekend			
	12:00 - 13:00	13:30 - 14:30	15:00 - 16:00
Weather Observations (cloud cover, wind, temp)	26 degrees C	27 degrees C	29 degrees C
	Wind 6 km/h	Wind 8 km/h	Wind 8 km/h
	Smokey (N/A cloud cover)	Smokey (N/A cloud cover)	Smokey (N/A cloud cover)
Water Conditions	Calm with small ripples	Calm with small ripples	Calm with small ripples
Sightline A - Dividing Zones 1 & 2			
	12:00 - 13:00	13:30 - 14:30	15:00 - 16:00
Motor boat - with tow	0	0	1
Motor boat - no tow	0	0	1
Jetski/Seadoo	1	24	0
S.U.P.	22	32	28
Other paddle/row	6	10	19
Swimmer, outside buoy zones	0	0	1
Other	0	0	0
Total sightline passes	29	66	50
Sightline B - Dividing Zones 2 & 3			
	12:00 - 13:00	13:30 - 14:30	15:00 - 16:00
Motor boat - with tow	0	0	1
Motor boat - no tow	5	0	2
Jetski/Seadoo	1	14	0
S.U.P.	2	9	22

Other paddle/row	1	11	12
Swimmer, outside buoy zones	1	0	0
Other	1	0	0
Total Sightline Passes	11	34	37
Sightline C - Dividing Zones 3 & 4			
	12:00 - 13:00	13:30 - 14:30	15:00 - 16:00
Motor boat - with tow	15	3	25
Motor boat - no tow	10	10	9
Jetski/Seadoo	11	37	29
S.U.P.	4	5	10
Other paddle/row	11	7	4
Swimmer, outside of buoy zones	0	0	0
Other	0	0	0
Boat launch IN	6	0	0
Boat launch OUT	1	0	0
Trailers in lot	0	7	5
Trailers in surrounding streets	0	2	0
Total Sightline Passes	51	62	77
Sightline D - Dividing Zones 4 & 5			
	12:00 - 13:00	13:30 - 14:30	15:00 - 16:00
Motor boat - with tow	15	5	24
Motor boat - no tow	7	9	6
Jetski/Seadoo	1	40	22
S.U.P.	5	6	7
Other paddle/row	9	4	5
Swimmer, outside of buoy zones	0	0	0
Other	0	0	0
Total Sightline Passes	37	64	64

Table 1: Observational dataset table from one of the five survey days (August 6th, 2023). The table includes observations of each sightline during three different daily time blocks with a total count of 582 over a 3-hour period.

Total Passes across a 3-hr period	Saturday	Saturday	Sunday	Monday	Sunday
	July 1	August 5	August 6	August 7	September 3
Sightline A	56	83	145	87	14
Sightline B	78	107	82	76	0
Sightline C	212	158	190	74	16
Sightline D	215	143	165	118	16

Table 2: The distribution of the total daily passes by sightline and date of observation.

Findings & Impact

The goal of this survey was to establish the frequency of user traffic in specific areas of Wasa Lake to better understand vessel volume and potential interactions between vessels and users of all types. This was measured by a count of total traffic passes across each sightline over the course of 1-hour time blocks as well as with a daily total for each sightline.

User Traffic

A total of 2035 user passes were recorded over the course of five survey days for all sightlines. The highest single day count was on August 6th with 582 total user passes. The lowest single day count was on September 3rd with 46 user passes. It is of note that the weather on September 3rd was windy and overcast and the water levels on Wasa Lake were so low that motorized vessels were unable to pass across sightline B where the lake narrows. The overall trends in vessel traffic are shown in Chart 1 which shows the overall number of vessel passes on each survey across each sightline.

The sightline with the most frequent vessel passes overall on all survey days was sightline C, followed by D, then B, then A (*Chart 1*). This also reflects that Zone 3 was the busiest of the zones, being adjacent to the boat launch and the larger part of Wasa Lake. Sightlines A

and B saw less frequent vessel traffic, though this section of the lake is significantly smaller and therefore unable to accommodate as many vessels. It was also observed that vessel traffic was overall higher later in the afternoon (i.e., 3 pm - 5 pm) than midday or early afternoon (i.e., 12 pm - 3 pm).

Frequency of Vessel Passes (by Sightlines)

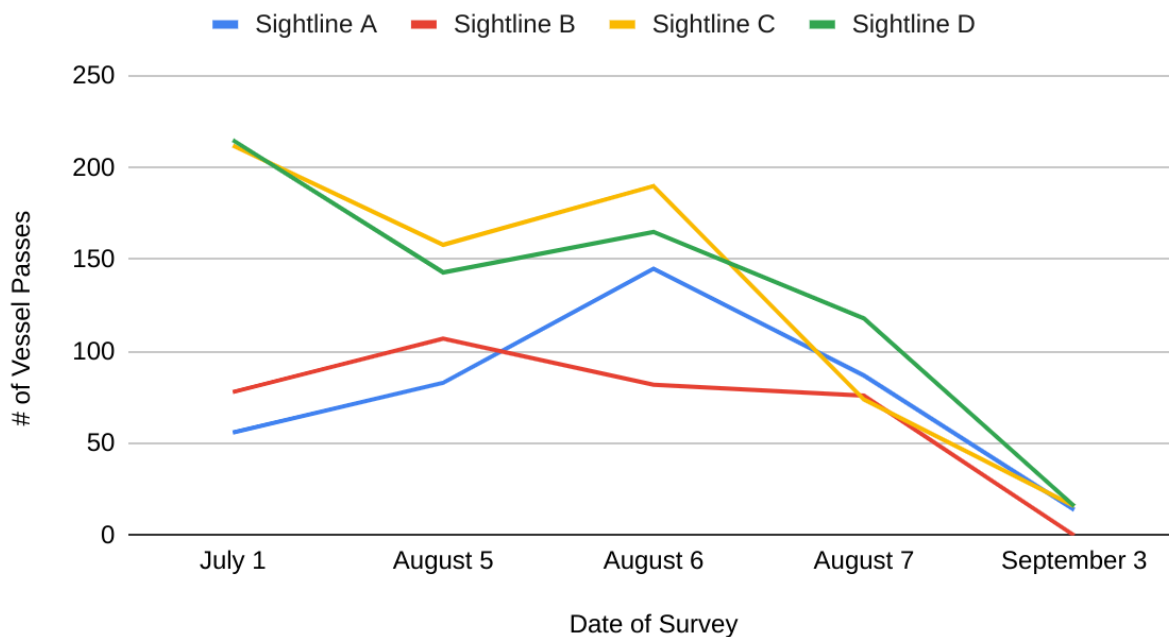


Chart 1: The frequency of vessel passes by sightline over each survey day.

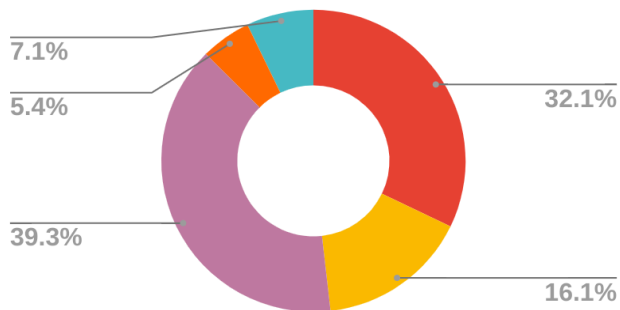
The most common vessel type to cross both sightline A and B was Stand-Up Paddleboards (SUPs) on every survey day except September 3rd, which saw very little overall traffic but still had mostly paddle vessels passing sightline A. Sightline A had a survey average of 56.5% vessel traffic frequency as SUPs, 15.9% other paddlers, 8.7% motor boats (with and without a tow) and 15.8% jet skis/seadoos. Sightline B had an average of 51.2% vessel traffic as SUPs, 19.9% other paddlers, 11.3% motor boats (with and without a tow), and 11.5% jet skis/seadoos.

Sightlines C and D had a much higher frequency of motorized vessels passing through the larger section of the lake: motor boats with a tow, motor boats without a tow and jet skis were the most frequent vessels on the survey days. While SUP numbers were still significant, they were much lower than motorized vessels and other paddle/row vessels were much less frequent. Motor boats with a tow were the most common vessel type to cross both sightline C and D. Sightline C recorded 12.4% vessel traffic as SUPs, 8.5% other paddlers, 31.8% motor boats with a tow, 27% motor boats without a tow and 19.9% jet skis/seadoos. Sightline D recorded 10.9% vessel traffic as SUPs, 7.6% other paddlers, 38.4% motor boats with a tow, 23.3% motor boats without a tow, and 17.2% jet skis/sea-doos. Motorized vessels, primarily motor boats with and without a tow, are the most common vessels on the southern part of Wasa Lake, followed closely by jet skis.

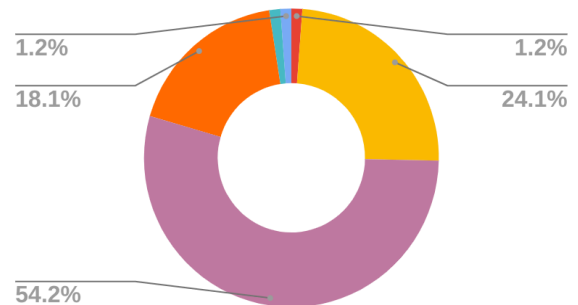
A graphic representation of the vessel types passing each sightline on each survey days is shown below:

Sightline A vessel type and frequency by survey date:

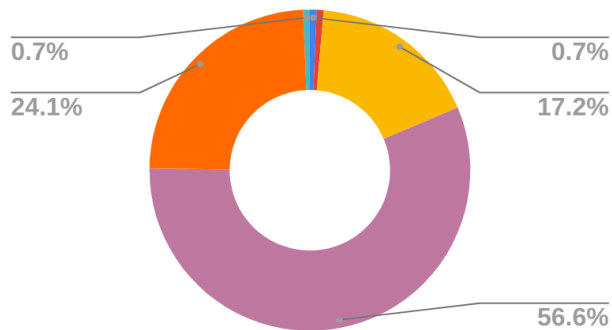
Sightline A Vessel Type and Frequency - July 1st



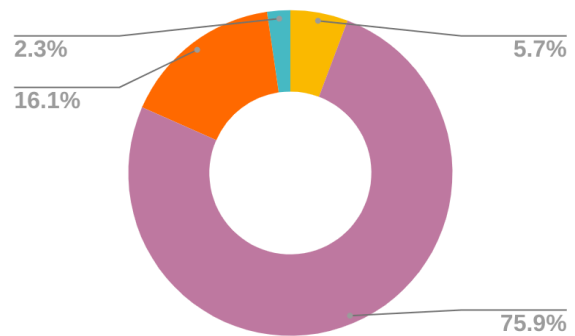
Sightline A Vessel Type and Frequency - Aug. 5th



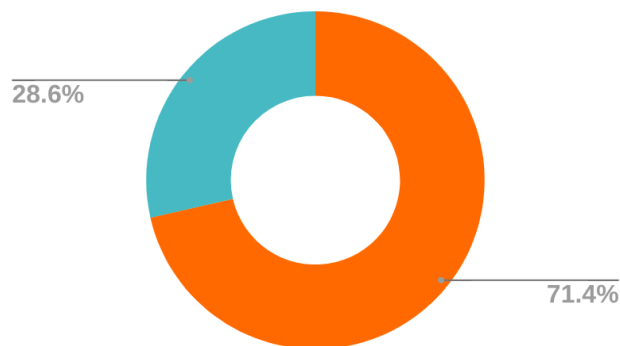
Sightline A Vessel Type and Frequency - Aug. 6th



Sightline A Vessel Type and Frequency - Aug. 7th



Sightline A Vessel Type and Frequency - Sept. 3rd

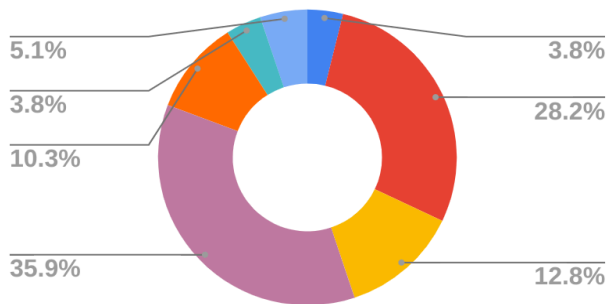


- Motor boat - with tow
- Motor boat - no tow
- Jetski/Seadoo
- S.U.P.
- Other paddle/row
- Swimmer, outside buoy zones

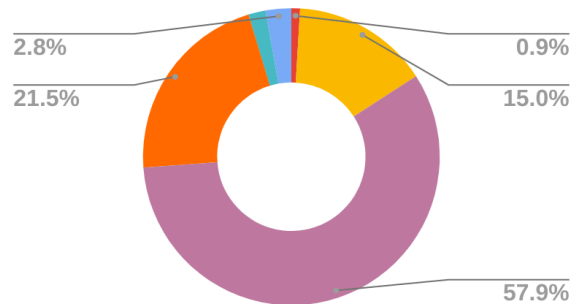
Sightline B vessel type and frequency by survey date:

Please note September 3rd is not represented because low water levels did not allow for any observed vessels to pass Sightline B.

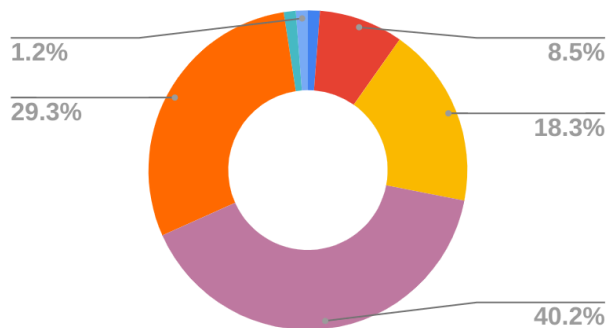
Sightline B Vessel Type and Frequency - July 1st



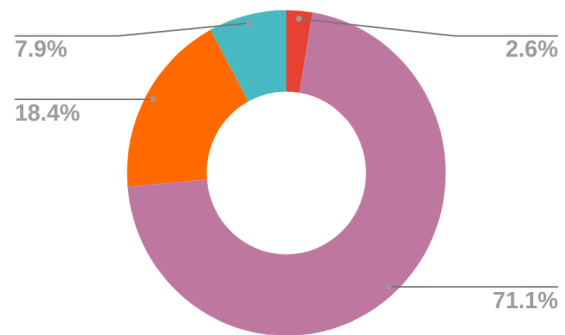
Sightline B Vessel Type and Frequency - Aug. 5th



Sightline B Vessel Type and Frequency - Aug. 6th



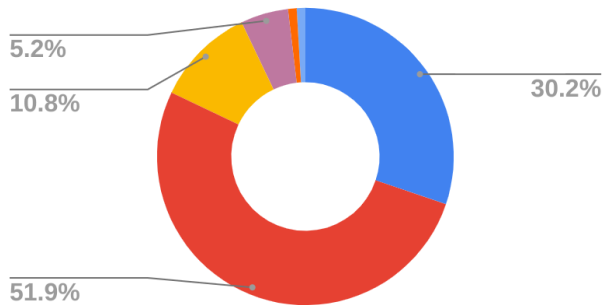
Sightline B Vessel Type and Frequency - Aug. 7th



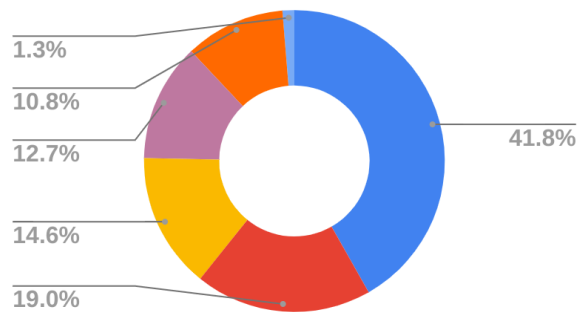
- Motor boat - with tow
- Motor boat - no tow
- Jetski/Seadoo
- S.U.P.
- Other paddle/row
- Swimmer, outside buoy zones

Sightline C vessel type and frequency by survey date:

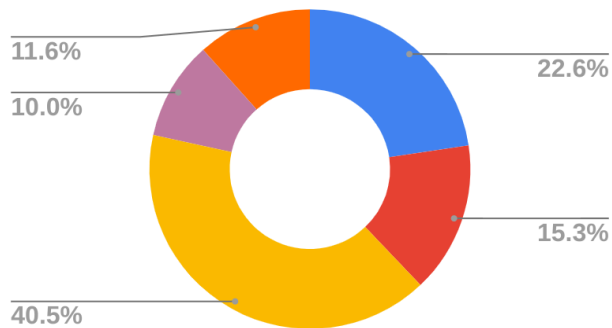
Sightline C Vessel Type and Frequency - July 1st



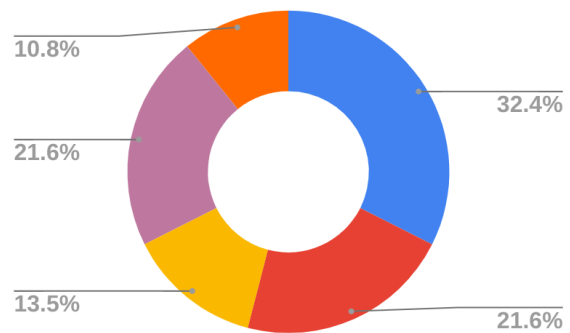
Sightline C Vessel Type and Frequency - Aug. 5th



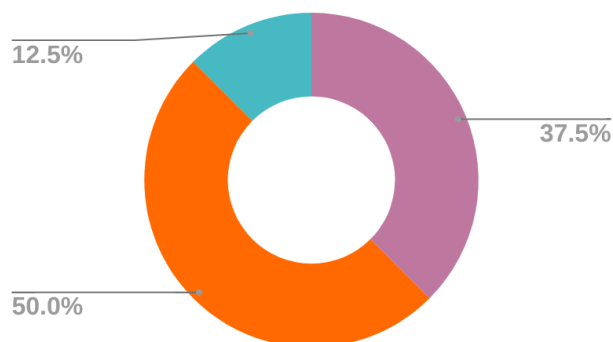
Sightline C Vessel Type and Frequency - Aug. 6th



Sightline C Vessel Type and Frequency - Aug. 7th



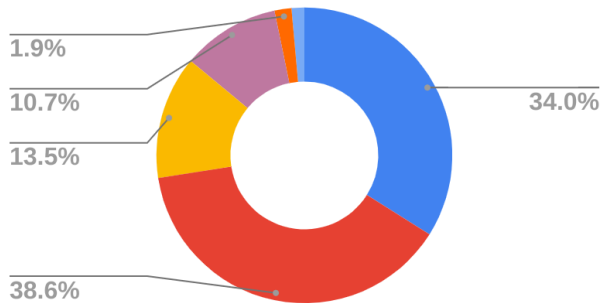
Sightline C Vessel Type and Frequency - Sept. 3rd



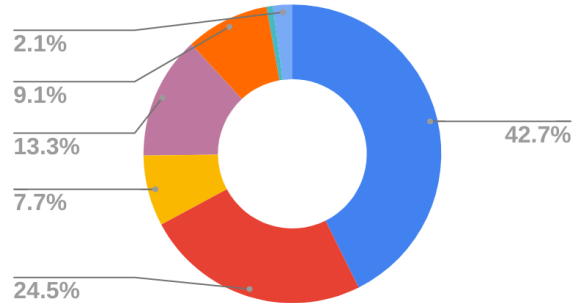
- Motor boat - with tow
- Motor boat - no tow
- Jetski/Seadoo
- S.U.P.
- Other paddle/row
- Swimmer, outside buoy zones

Sightline D vessel type and frequency by survey date:

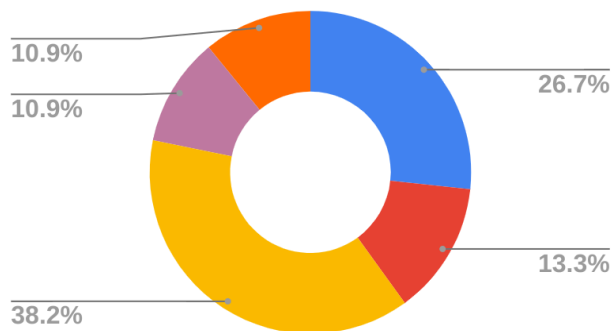
Sightline D Vessel Type and Frequency - July 1st



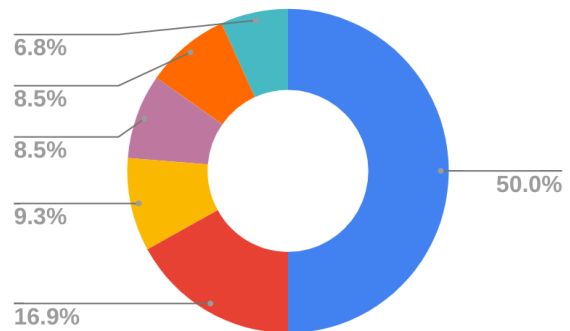
Sightline D Vessel Type and Frequency - Aug. 5th



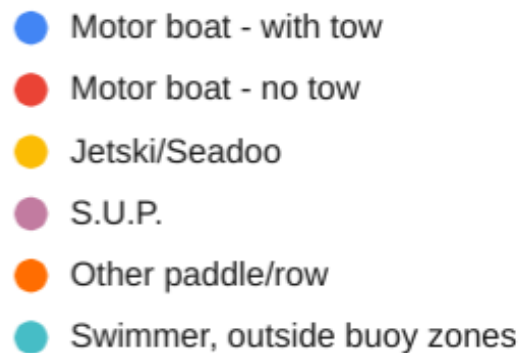
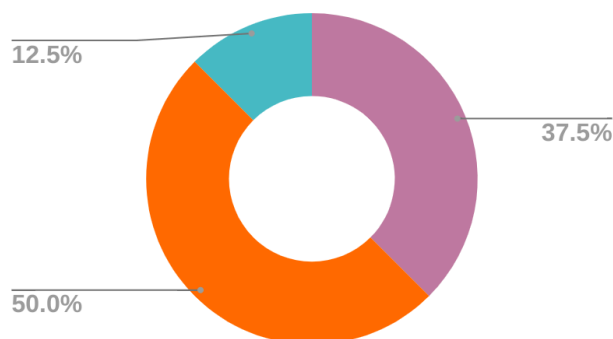
Sightline D Vessel Type and Frequency - Aug. 6th



Sightline D Vessel Type and Frequency - Aug. 7th



Sightline D Vessel Type and Frequency - Sept. 3rd



The results of the survey show that Zones 1 and 2 contain less users overall and see less vessel traffic and lower frequency. This is most likely due to the smaller area and more shallow water in the north end of Wasa Lake as well as the extensive and continuous recommended swimming zone designated by white buoys in Zone 1 that reduce the area for vessels and encourage a safe section for swimming. Zones 3, 4 and 5 saw more motorized vessel traffic and less non-motorized vessels and swimmers. There is a designated recommended swimming zone with buoys along the shoreline of the Wasa Lake campground beach which offers some protection for swimmers, though it does not reduce wake or necessarily confine swimmers to that zone.

Zones 1 and 2 may be seeing less users due to the self-regulation that can occur by users in recreational areas. Self-regulation is observed as users opting not to go into an area that is already visually busy. Potential self-regulation may have influenced the number of users in the north end of Wasa Lake, however the August 6th survey date recorded 2.5x the number of users passing sightline A than the previous July 1st survey. A lack of self regulation may carry the highest potential for user conflict. Public knowledge of safe practices should not be assumed.

Motor Vessels

Motor vessel traffic was the most frequent passing sightlines C and D, and within Zones 3, 4 and 5. Between 30 - 80% of total traffic across these sightlines was from motor vessels during peak user times, with anywhere from 20 - 50% being from motor vessels with a tow. For example, on July 1st, 50% of the vessels passing sightline C were motor vessels with no tow and 30% were motor vessels with a tow. Sightlines A and B saw significantly less motor traffic in general (<10%) during the survey days except for on July 1st, when sightline A and B saw 32% and 28% respectively of traffic as motor vessels with no tow. It is worth noting that Wasa Lake had its highest water levels in July during the survey period which had a significant impact on motor vessel traffic across sightlines A and B, easily allowing traffic to pass sightline B. In September, particularly low water levels across sightline B restricted motor vessels to zones 3, 4 and 5 only.

For the purposes of this survey, it is assumed that many or most of the motor vessels with a tow would fall into the category of 'wake boat' as they are being used for hi-speed, wake-creating tow activities, such as wakeboarding. The definition of a wake boat is broad and therefore difficult to qualify accurately within this land-based survey, however it is assumed here that motor vessels observed with a tow are purposefully creating excess wake to create the conditions typically required for activities such as water skiing, wakeboarding, and tubing.

Acknowledgement

Living Lakes Canada thanks the RDEK for the opportunity to conduct this survey. We look forward to the possibility of future collaboration in safeguarding our freshwater resources.

Appendix A: Wasa Lake Vessel Survey Datasets

WASA LAKE			
Saturday, July 1st. Canada Day Holiday Long Weekend			
	12:30 - 13:30	14:30 - 15:30	16:00 - 17:00
Weather Observations (cloud cover, wind, temp)	Sunny, blue sky 15% cloud cover	Sunny, blue sky 10% cloud cover	Sunny, blue sky 10% cloud cover
	Wind 18.5 km/h	Wind 15 km/h	Wind 12 km/h
Water Conditions	Small waves White caps	Small waves No white caps	Small waves No white caps
Sightline A - Dividing Zones 1 & 2			
	12:30 - 13:30	14:30 - 15:30	16:00 - 17:00
Motor boat - with tow	0	0	0
Motor boat NO tow	4	1	13
Jetski/Seadoo	0	2	7
S.U.P.	3	7	12
Other paddle/row	3	0	0
Swimmer, outside buoy zones	2	1	1
Other	0	0	0
Total sightline passes	12	11	33
Sightline B - Dividing Zones 2 & 3			
	12:30 - 13:30	14:30 - 15:30	16:00 - 17:00
Motor boat - with tow	0	1	2
Motor boat - no tow	7	2	13
Jetski/Seadoo	0	2	8
S.U.P.	5	13	10
Other paddle/row	4	4	0
Swimmer, outside buoy zones	1	2	0
Other	0	0	4
Total Sightline Passes	17	24	37
Sightline C - Dividing Zones 3 & 4			
	12:30 - 13:30	14:30 - 15:30	16:00 - 17:00

Motor boat - with tow	13	11	40
Motor boat - no tow	26	15	69
Jetski/Seadoo	4	2	17
S.U.P.	5	4	2
Other paddle/row	1	0	1
Swimmer, outside of buoy zones	0	0	0
Other	1	0	1
Boat launch IN	1	2	4
Boat launch OUT	1	3	5
Trailers in lot	8	9	6
Trailers in surrounding streets	0	1	3
Total Sightline Passes	50	32	130

Sightline D - Dividing Zones 4 & 5

	12:30 - 13:30	14:30 - 15:30	16:00 - 17:00
Motor boat - with tow	11	13	49
Motor boat - no tow	27	13	43
Jetski/Seadoo	4	2	23
S.U.P.	9	11	3
Other paddle/row	1	3	0
Swimmer, outside of buoy zones	0	0	0
Other	3	0	0
Total Sightline Passes	55	42	118

WASA LAKE Saturday, August 5th. BC Day Holiday Long Weekend			
	12:00 - 13:00	13:30 - 14:30	15:00 - 16:00
Weather Observations (cloud cover, wind, temp)	27 degrees C Wind: 5km/h	28 degrees C Wind: 5km/h	28 degrees C Wind: 5km/h
	Smokey (N/A cloud cover)	Smokey (N/A cloud cover)	Smokey (N/A cloud cover)
Water Conditions	Calm with small ripples	Calm with small ripples	Calm with small ripples
Sightline A - Dividing Zones 1 & 2			

	12:00 - 13:00	13:30 - 14:30	15:00 - 16:00
Motor boat - with tow	0	0	0
Motor boat - no tow	0	0	1
Jetski/Seadoo	2	15	3
S.U.P.	6	25	14
Other paddle/row	3	6	6
Swimmer, outside of buoy zones	0	1	0
Other	0	1	0
Total sightline passes	11	48	24
Sightline B - Dividing Zones 2 & 3			
	12:00 - 13:00	13:30 - 14:30	15:00 - 16:00
Motor boat - with tow	0	0	0
Motor boat - no tow	0	0	1
Jetski/Seadoo	4	2	10
S.U.P.	8	28	26
Other paddle/row	9	6	8
Swimmer, outside of buoy zones	2	0	0
Other	0	3	0
Total Sightline Passes	23	39	45
Sightline C - Dividing Zones 3 & 4			
	12:00 - 13:00	13:30 - 14:30	15:00 - 16:00
Motor boat - with tow	7	21	38
Motor boat - no tow	6	12	12
Jetski/Seadoo	0	0	23
S.U.P.	2	6	12
Other paddle/row	3	6	8
Swimmer, outside of buoy zones	0	0	0
Other	0	0	2
Boat launch IN	3	3	0
Boat launch OUT	0	0	1
Trailers in lot	0	7	5

Trailers in surrounding streets	0	2	0
Total Sightline Passes	18	45	95
Sightline D - Dividing Zones 4 & 5			
	12:00 - 13:00	13:30 - 14:30	15:00 - 16:00
Motor boat - with tow	7	23	31
Motor boat - no tow	5	13	17
Jetski/Seadoo	0	0	11
S.U.P.	2	6	11
Other paddle/row	4	4	5
Swimmer, outside of buoy zones	0	0	1
Other	0	0	3
Total Sightline Passes	18	46	79

WASA LAKE			
Sunday, August 6th. BC Day Holiday Long Weekend			
	12:00 - 13:00	13:30 - 14:30	15:00 - 16:00
Weather Observations (cloud cover, wind, temp)	26 degrees C	27 degrees C	29 degrees C
	Wind 6 km/h	Wind 8 km/h	Wind 8 km/h
	Smokey (N/A cloud cover)	Smokey (N/A cloud cover)	Smokey (N/A cloud cover)
Water Conditions	Calm with small ripples	Calm with small ripples	Calm with small ripples
Sightline A - Dividing Zones 1 & 2			
	12:00 - 13:00	13:30 - 14:30	15:00 - 16:00
Motor boat - with tow	0	0	1
Motor boat - no tow	0	0	1
Jetski/Seadoo	1	24	0
S.U.P.	22	32	28
Other paddle/row	6	10	19
Swimmer, outside buoy zones	0	0	1
Other	0	0	0
Total sightline passes	29	66	50
Sightline B - Dividing Zones 2 & 3			

	12:00 - 13:00	13:30 - 14:30	15:00 - 16:00
Motor boat - with tow	0	0	1
Motor boat - no tow	5	0	2
Jetski/Seadoo	1	14	0
S.U.P.	2	9	22
Other paddle/row	1	11	12
Swimmer, outside buoy zones	1	0	0
Other	1	0	0
Total Sightline Passes	11	34	37

Sightline C - Dividing Zones 3 & 4

	12:00 - 13:00	13:30 - 14:30	15:00 - 16:00
Motor boat - with tow	15	3	25
Motor boat - no tow	10	10	9
Jetski/Seadoo	11	37	29
S.U.P.	4	5	10
Other paddle/row	11	7	4
Swimmer, outside of buoy zones	0	0	0
Other	0	0	0
Boat launch IN	6	0	0
Boat launch OUT	1	0	0
Trailers in lot	0	7	5
Trailers in surrounding streets	0	2	0
Total Sightline Passes	51	62	77

Sightline D - Dividing Zones 4 & 5

	12:00 - 13:00	13:30 - 14:30	15:00 - 16:00
Motor boat - with tow	15	5	24
Motor boat - no tow	7	9	6
Jetski/Seadoo	1	40	22
S.U.P.	5	6	7
Other paddle/row	9	4	5
Swimmer, outside of buoy zones	0	0	0
Other	0	0	0

Total Sightline Passes	37	64	64
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WASA LAKE			
Monday, August 7th. BC Day Holiday Long Weekend			
	12:00 - 13:00	13:30 - 14:30	15:00 - 16:00
Weekend Comments (weather, cloud cover, wind, water conditions)	25 degrees C Wind: 0-5 km/h	27 degrees C Wind: 0-5 km/h	28 degrees C Wind: 0-5 km/h
	Smokey (0% cloud cover)	Smokey (0% cloud cover)	Smokey (10% cloud cover)
Water Conditions	Small ripples	Still/small ripples	Small ripples
Sightline A - Dividing Zones 1 & 2			
	12:00 - 13:00	13:30 - 14:30	15:00 - 16:00
Motor boat - with tow	0	0	0
Motor boat - no tow	0	0	0
Jetski/Seadoo	5	0	0
S.U.P.	18	14	34
Other paddle/row	2	7	5
Swimmer, outside buoy zones	0	0	2
Other	0	0	0
Total sightline passes	25	21	41
Sightline B - Dividing Zones 2 & 3			
	12:00 - 13:00	13:30 - 14:30	15:00 - 16:00
Motor boat - with tow	0	0	0
Motor boat - no tow	1	0	1
Jetski/Seadoo	0	0	0
S.U.P.	16	4	34
Other paddle/row	1	8	5
Swimmer, outside buoy zones	0	1	5
Other	0	0	0
Total Sightline Passes	18	13	45
Sight line C - dividing zones 3 & 4			
	12:00 - 13:00	13:30 - 14:30	15:00 - 16:00

Motor boat - with tow	12	7	5
Motor boat - no tow	2	4	10
Jetski/Seadoo	0	2	8
S.U.P.	3	4	9
Other paddle/row	0	4	4
Swimmer, outside of buoy zones	0	0	0
Other	0	0	0
Boat launch IN	0	0	0
Boat launch OUT	0	0	0
Trailers in lot	0	3	2
Trailers in surrounding streets	0	0	0
Total Sightline Passes	17	21	36

Sightline D - Dividing Zones 4 & 5

	12:00 - 13:00	13:30 - 14:30	15:00 - 16:00
Motor boat - with tow	30	20	9
Motor boat - no tow	1	6	13
Jetski/Seadoo	0	1	10
S.U.P.	2	6	2
Other paddle/row	0	8	2
Swimmer, outside buoy zones	2	2	4
Other	0	0	0
Total Sightline Passes	35	43	40

WASA LAKE			
Saturday, September 2nd. Labour Day Holiday Long Weekend			
	12:30 - 13:30	14:30 - 15:30	16:00 - 17:00
Weekend Comments (weather, cloud cover, wind, water conditions)	22 degrees C Wind: 23 km/h	23 degrees C Wind: 18 - 20 km/h	22 degrees C Wind: 15 km/h
	90% cloud cover	80% cloud cover	80% cloud cover
Water Conditions	Small whitecaps	small waves /choppy	small waves
Noticeable low water levels compared to July / Aug - sight line 2/3 almost walkable			

Sightline A - Dividing Zones 1 & 2			
	12:30 - 13:30	14:30 - 15:30	16:00 - 17:00
Motor boat - with tow	0	0	0
Motor boat NO tow	0	0	0
Jetski/Seadoo	0	0	0
S.U.P.	0	0	0
Other paddle/row	4	4	2
Swimmer, outside buoy zones	0	4	0
Other	0	0	0
Total sightline passes	4	8	2
Sightline B - Dividing Zones 2 & 3			
	12:30 - 13:30	14:30 - 15:30	16:00 - 17:00
Motor boat - with tow	0	0	0
Motor boat - no tow	0	0	0
Jetski/Seadoo	0	0	0
S.U.P.	0	0	0
Other paddle/row	0	0	0
Swimmer, outside buoy zones	0	0	0
Other	0	0	0
Total Sightline Passes	0	0	0
Sightline C - Dividing Zones 3 & 4			
	12:30 - 13:30	14:30 - 15:30	16:00 - 17:00
Motor boat - with tow	0	0	0
Motor boat - no tow	0	0	0
Jetski/Seadoo	0	0	0
S.U.P.	0	2	4
Other paddle/row	2	4	2
Swimmer, outside of buoy zones	0	2	0
Other	0	0	0
Boat launch IN	0	0	0
Boat launch OUT	0	0	0
Trailers in lot	0	0	0
Trailers in surrounding	0	0	0

streets			
Total Sightline Passes	2	8	6
Sightline D - Dividing Zones 4 & 5			
	12:30 - 13:30	14:30 - 15:30	16:00 - 17:00
Motor boat - with tow	0	0	0
Motor boat - no tow	0	0	0
Jetski/Seadoo	0	0	0
S.U.P.	0	4	2
Other paddle/row	2	4	2
Swimmer, outside of buoy zones	0	2	0
Other	0	0	0
Total Sightline Passes	2	10	4

Endnotes

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