



Two Minutes for Lake Heath: A Lake Windermere Ambassadors Community Survey Review

Introduction

In the summer, on weekends of high recreation use, the Lake Windermere Ambassadors (LWA) have received feedback from residents and visitors who report feeling unsafe due to the number of motorized boats on the lake, aggressive boating, and wake generated from those boats. Additionally, the ecological impacts of motorized boating on our freshwater resources have long been a concern for the communities around Lake Windermere (Berris & Gushue, 2011). Though our freshwater resources provide motorized recreation opportunities they are also relied on as a key tourism draw for non-motorized recreation, critical habitat for fish and wildlife, cultural significance, and are important sources of drinking water for communities in the area. To better understand what matters to the community, the Lake Windermere Ambassadors have undertaken a survey hoping to gain insight into the feelings of the community and visitors on the recreational use of Lake Windermere.

The growing popularity of the Columbia Valley increases pressures on Lake Windermere. This lake faces imminent threats as a result, including increased tourism and recreation and the cumulative impacts associated with motorized water sports. The Lake Windermere Ambassadors Society began work on a Recreational Impact and Capacity Assessment to research specific impacts to Lake Windermere and determine possible solutions to mitigate damages to the Columbia River Headwaters and wetlands. The study aims to understand recreation impacts on Lake Windermere's aquatic ecosystems and focuses on water quality, ecologically significant habitats, shoreline erosion, drinking water intakes, and aquatic life. A similar study was conducted on Kalamalka and Wood Lake in the Okanagan where water quality, boat recreation/use, and habitat values were used to help identify and map areas where recreation was preferred to protect sensitive habitats and drinking water quality. This survey was important to include in the study to determine the community's feelings related to the recreational use of Lake Windermere.

Berris, C., & Gushue, B. (2011, January). Lake Windermere Management Plan. Regional District of East Kootenay. Retrieved January 7, 2023, from https://www.rdek.bc.ca/web/pdf/lakewindermere/managementplan/LWMP_Final_Report_-_Text_Only.pdf

Methodology



Methodology

- Participants were asked to answer 13 questions about their own recreation practices on Lake Windermere and how they feel about the overarching state of recreation on the lake.
- The survey ran from August 31, 2023, until October 1, 2023.
- The invite to complete the survey was advertised in the local newspaper “The Columbia Valley Pioneer” posted to the Lake Windermere Ambassadors website and LWA social media accounts.
- Posters advertising the survey were also placed in the local Canada Post building, a government building entrance way, and displayed at a weekend outreach booth at the Athalmer boat launch.
- The survey was conducted online through Google Forms and included open ended and closed, long answer, multiple choice, checkbox, and linear scale questions.
- To ensure that the survey was filled out only once per person, respondents were asked to input their first and last name, as well as their email address. The names and emails will not be shared in this summary report.
- Respondents were not offered any incentives for completing the survey.

Results

There was a total of 222 respondents. 71% who identified as full-time residents, 27% as part-time residents, and 2% as visitor (Figure 1). Participants were then asked to indicate what type of recreation they typically utilize Lake Windermere for. Of the 222 respondents, some indicated multiple activities. The highest ranked recreation type was swimming (188),

followed by paddling/SUP (178), while fishing (66) and boating (66) tied for third (Figure 2). Nine activities we grouped together and indicated as “other” because they were selected by two or less participants or were not indicated (refer to Appendix 1A for a list of these).

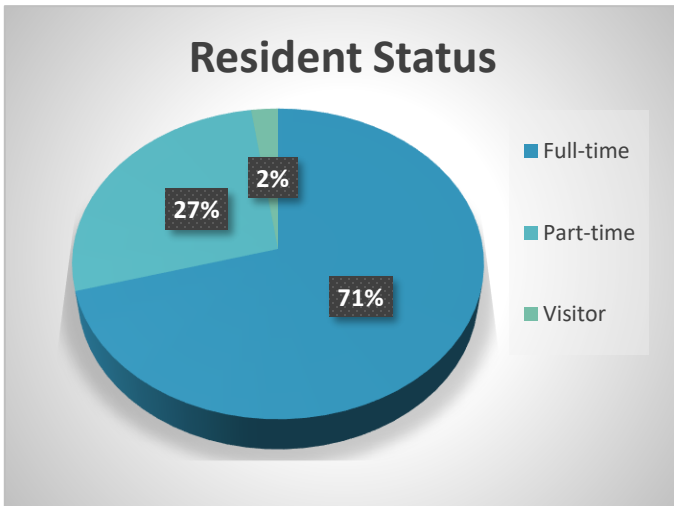


Figure 1: Results of question: Do you consider yourself a resident or visitor to the area?

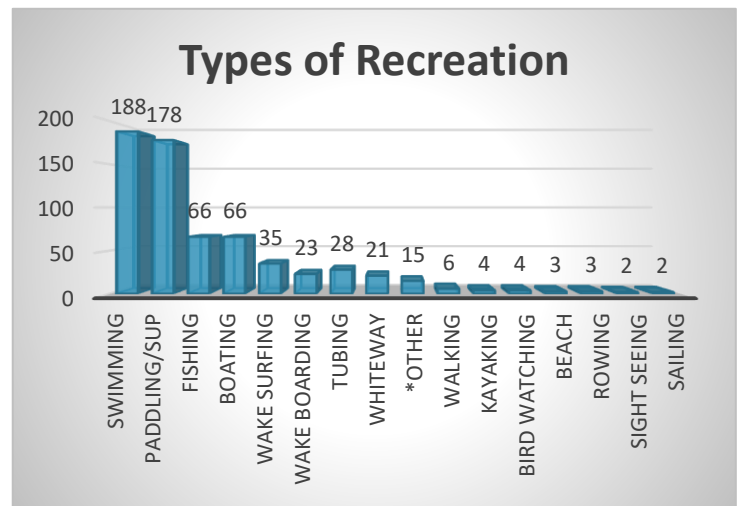


Figure 2: Results of Question: What type of recreation do you typically utilize Lake Windermere for?

Next, participants were asked questions on how they feel about the number of boats operating on Lake Windermere and their safety concerns around it. Respondents were asked if they felt there should be a maximum number of boats allowed on the lake at any one time. 173 (77%) respondents selected yes, while 51 (23%) selected no (Figure 3).

They were asked how they would describe the number of boats operating on Lake Windermere. Results were no concerns (3%), Busy, but room for more (6%), the lake reaches capacity (28%), The lake is already overcapacity (56%), Other and add and option (7%) (Figure 4). The “other” and “add an option” were grouped together because they were selected by only one participant (refer to Appendix 2B for a list of these).

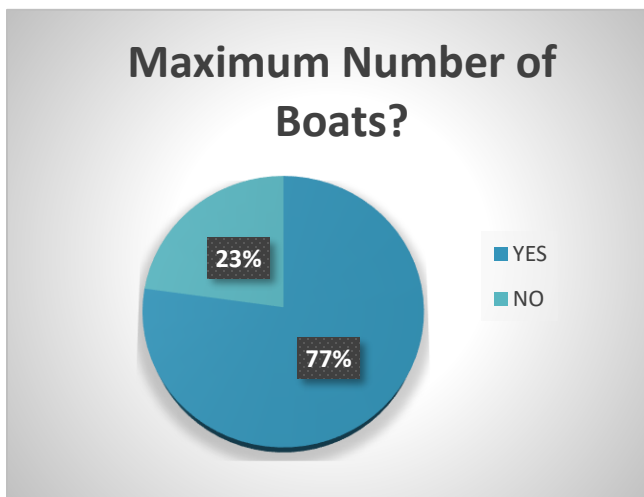


Figure 3: Results of question: Do you believe there should be a maximum number of boats on the lake at any one time?

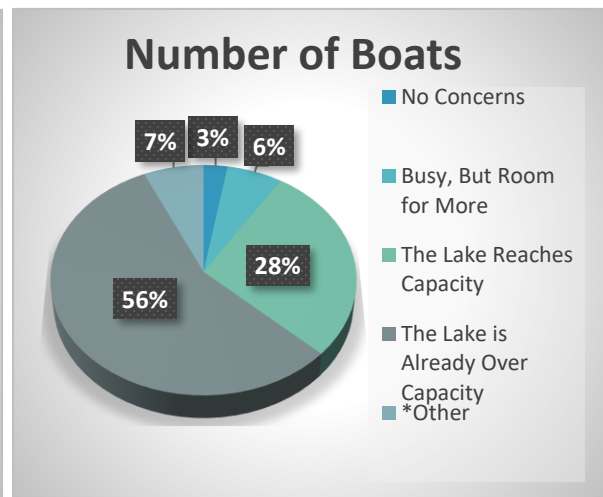


Figure 4: Results of question: How would you describe the number of boats operating on Lake Windermere?

Community members were asked if they ever felt concerned for their safety due to the number or use of watercraft on Lake Windermere. They were provided with a scale to answer this question from 1-5. 1 (Have never felt unsafe) to 5 (They feel unsafe often). Results indicate 25.2% of respondents chose option 5, that they often feel unsafe on Lake Windermere. 23.0% chose option 4, 27.5% chose the middle between never unsafe and unsafe often, 14.0% chose option 2, and 10.4% indicated that they never feel unsafe (Figure 5).

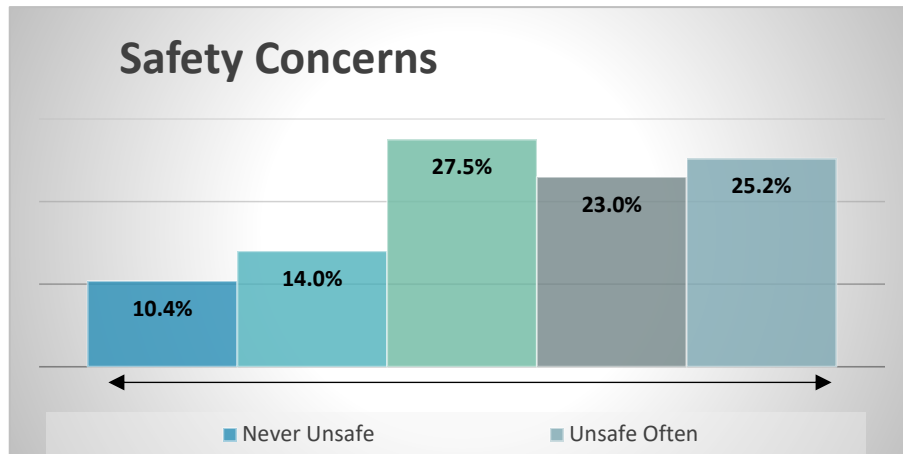


Figure 5: Results of question: Have you ever felt concerned for your safety due to the number or use of watercraft on Lake Windermere?

The respondents were asked a series of questions regarding their opinion on how recreation on the lake should be managed. They were asked if they would be interested in learning improved boating habits to support the health of the lake on a scale of 1 (not interested) to 5 (very interested). Results show that 220 of the 222 participants responded to this question, as follows: 9.1% were very uninterested, 8.6% mostly uninterested, 21.8% neutral, 19.5% somewhat interested, 40.9% were very interested (Figure 6).

Participants were asked how likely, on a scale of 1 (not likely) to 5 (very likely), would they be to follow voluntary codes of conduct to protect sensitive habitats and water quality of Lake Windermere. Results indicate that most respondents would be open to following codes of conduct to protect the lake, with 3.2% responding as not likely, 1.4% somewhat unlikely, 9.0% neutral, 17.6% somewhat likely, 68.9% likely (Figure 7).

Respondents were asked, on a scale of 1 (would not support) to 5 (would support), if they would support the installation of slow, no wake zones and buoys directing good travel pathways to protect sensitive habitats and water quality. 2.7% would not support, 2.3% somewhat unlikely to support, 8.6% neutral, 8.1% somewhat likely to support, 78.4% would support (Figure 8). Respondents were asked if they would support the implementation of bylaws and regulations to mitigate impacts of boating activities and boating infrastructure on Lake Windermere values. 63% said yes, 29% said maybe and 8% said no (Figure 9).

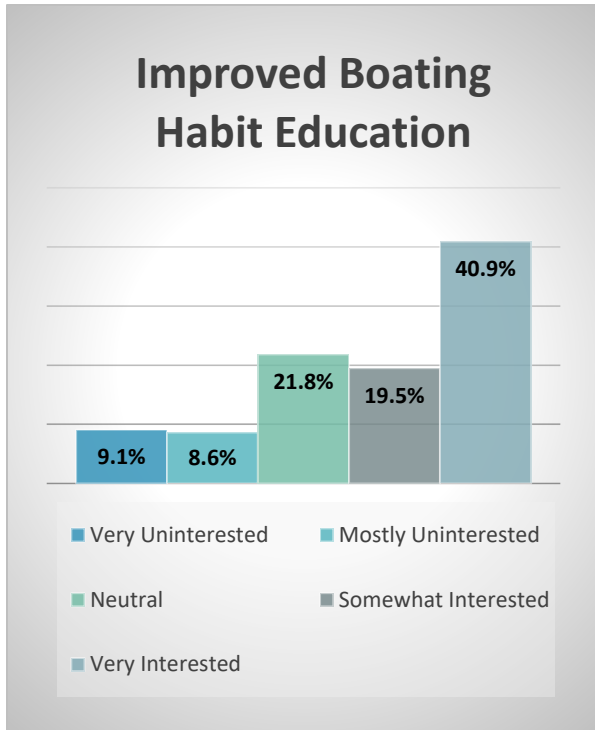


Figure 6: Results of question: How interested are you in learning improved boating habits to protect the health of Lake

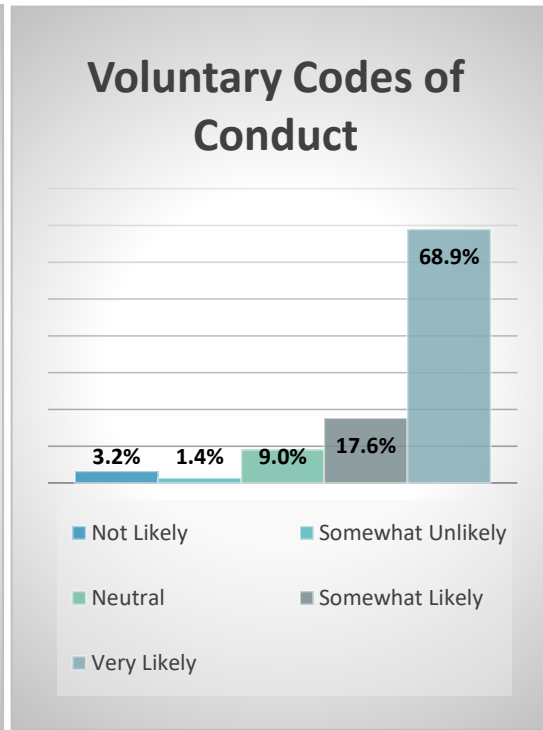


Figure 7 Results of question: How likely would you be to follow voluntary watercraft codes of conduct to protect sensitive habitats and the water quality of Lake

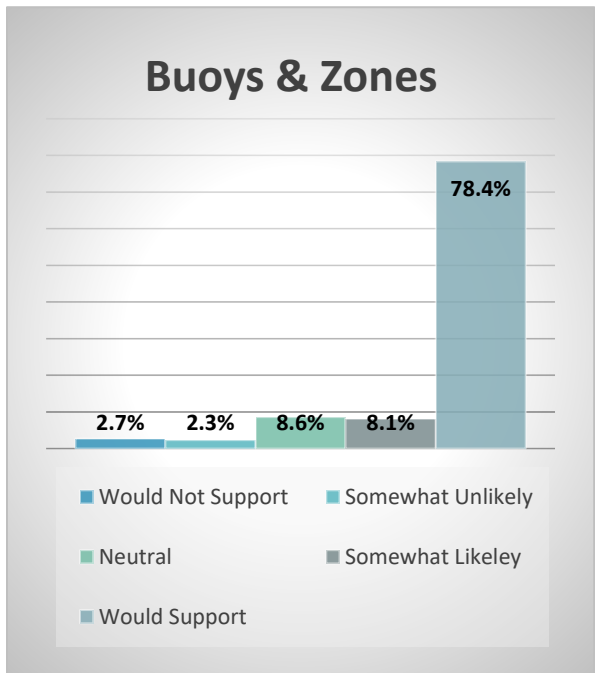


Figure 8: Results of question: Would you support installation of slow, no wake zones and buoys directing good travel pathways to protect sensitive habitats and water quality?

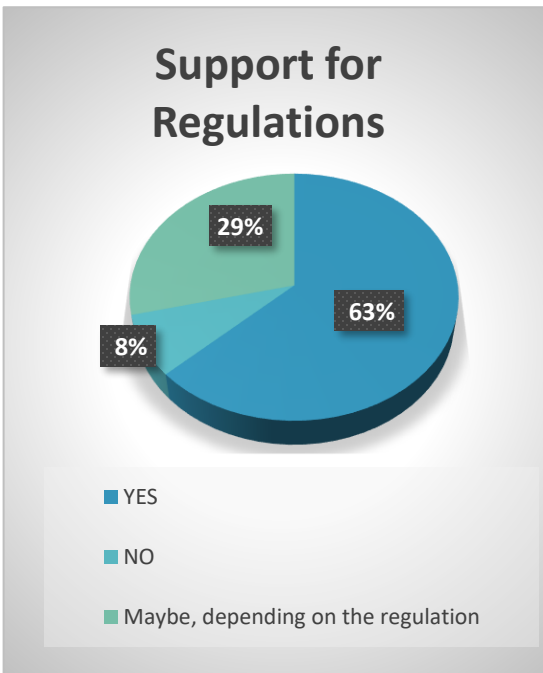


Figure 9: Results of question: Would you support the implementation of bylaws and regulations to mitigate impacts of boating activities and boating infrastructure on Lake Windermere values? *Please note, we do not have the authority to implement any type of bylaw or regulation

Respondents were given a long answer question, where they were asked to elaborate on their answer about supporting the implementation of bylaws and regulations to mitigate impacts of boating activities and boating infrastructure on Lake Windermere values. There were 138 responses out of 222 survey completes. There were some who indicated more than one topic, so each topic was counted as a separate response and grouped together based on similarity (Table 1). *Other was used as a category to include the answers that only had one respondent and did not fit into any of the other categories. Lastly, participants were asked a long answer question about what (if any) their main concerns about Lake Windermere are. There were 187 responses out of 222 completes. There were some who indicated more than one area of concern, so each concern was counted as a separate response and grouped together based on similarity (Table 2). *Other was used as a category to include the answers that only had one respondent and did not fit into any of the other categories.

Table 1: Summary of comments to question: Please elaborate on your answer to "Would you support the implementation of bylaws and regulations to mitigate impacts of boating activities and boating infrastructure on Lake Windermere values?"

Comments	# of respondents	Comments	# of respondents
Noise pollution from boats and wake boat speakers is an issue	9	There is a need for bylaws or signage to protect sensitive habitat areas and shorelines from boat wake impacts and development	7
Educating about how to boat responsibly is better than bylaws	4	There are way too many boats on the lake causing safety issues for all other types of lake users	23
Need more lake enforcement on Buoys, moorage, and docks	5	Need to protect the lake as a drinking water source by using regulations	3
I support new but fair and reasonable bylaws that balance the needs of nature and people	7	Ban motorized watercraft on the lake all or part of the year or implement a HP limit	21
There is already lack of enforcement on current regulations and new ones would be hard to enforce	17	Enforce the pleasure craft operator card requirement and boat driver training. Establish a right of way for boat traffic. Need for visible enforcement	4

Would not support new bylaws. There are already enough bylaws and regulations in place we don't need more, the water belongs to everyone	6	Development is increasing each year driving up the number of boats, the increased impact on the environment is a concern	2
Charge a fee to launch a boat, funds to go towards lake conservation	3	Depends on the bylaws	2
Regulate the amount, type, and size of boats on the lake	22	Must factor economic, tourism and property value impacts when considering new regulations	1
The shallow depth of our lake is a concern and regulations are needed to protect its ecological health from boat and wake boat impacts	25	Support regulations that ensure cultural use and for the work being done by the Indigenous stewards on the reintroduction of salmon	2
More no wake or boat free areas for self-propelled activities and swimming are needed	7	*Other	6

Table 2: Summary of responses to question: What (If any) are your main concerns about Lake Windermere?

Comments	# of respondents	Comments	# of respondents
Concerns for water quality, quantity and/or preservation of the ecological health of the lake and wetlands from human impact. Includes fish, birds, aquatic life, and invasive species introduction	68	Shoreline erosion from boat waves	11
Concerns for water quality as a drinking water source	8	Lack of public access, encroachment of access points by neighboring private property owners	2

Finding a balance between Lake health and human activities	3	Runoff pollution	2
Concern over impacts from boat size and type and the size of waves they create, and speed	27	Number of aquatic plants increasing in the lake, power boats digging up weeds causing new growth	7
Number of boats is a concern- Lake is too busy	38	Economic impact from boating restrictions or from a decline in lake health	2
Physical characteristics (small, shallow, soft bottom) of the lake do not support the amount of wake boats,	21	Traditional uses and the reintroduction of salmon	3
Non-motorized lake user are being limited or disregarded by power boats, they need more wake free space	14	Hydrocarbon, toxic metals resuspension in sediment plumes caused by wake boats	3
Safety concerns for all types of lake users due to number of boats on the water	24	Unsafe boat operation and DUI, Boat renters are not experienced, all drivers should be licensed	7
All voices are heard in any decisions regarding the lake, should be part of the community plan, management planning	3	Sewage in the lake also East shore septic tanks/fields prone to leaking	3
Illegal Buoys and mooring and dock material	6	Boat Launch/ramp is an issue, need a public marina, and trailer parking, not enough mooring options	7
Noise pollution and pollution from boats (fuel) and boaters (garbage); downstream pollution	44	*Other	5

Findings

Demographics:

- Most respondents are residents local to the Windermere Lake area.
- The largest group identified as full-time residents.

Recreation Activities:

- Highest-ranking recreation activities on the lake are non-motorized, including swimming and paddling/SUP.
- Indicates a preference for swimming and paddling over power boating among locals.

Boat Density and Safety:

- Large majority of residents would like to see a maximum number of boats on the lake at any given time.
- Safety concerns, particularly from non-motorized users, are prevalent in the comments
- Most respondents feel there are too many boats on the lake, exceeding its capacity.
- Approximately half of the respondents expressed concerns about their safety on the lake.
- There are more respondents that have safety concerns than those who do not.

Boating Education and Habits:

- About 60% of respondents are open to boating education and learning improved boating habits.

Voluntary Codes of Conduct:

- 87% of respondents would follow all or some voluntary codes of conduct to protect the lake's sensitive areas and water quality.
- Similar numbers support the installation of slow, no-wake zones and buoys to protect sensitive habitats and water quality.

Regulations and Bylaws:

- Respondents express interest in regulations but highlight concerns around enforcement.
- Many comments emphasize the need for more regulation due to concerns about the negative impact of certain boat types and sizes on the shallow, soft lake bottom.
- There is strong support for potential regulations, including a ban on motorized watercraft and/or horsepower limits.
- Curiously, there was little mention about protecting the drinking water through support for by-laws and regulations, but the issue was more prevalent in the question regarding participants concerns for Lake Windermere.

Main Concerns:

- Overwhelmingly, community concerns revolve around water quality, quantity, and preservation of the ecological health of the lake and wetlands.
- Specific concerns include the impact on fish, birds, aquatic life, and the introduction of invasive species.

- Many express concerns about the size and type of boats operating within the physical parameters of the lake, especially given its small size, shallow, and soft bottom.
- Safety concerns extend to include all types of lake users, with a desire for more boat-free spaces.
- Significant concerns about noise pollution and pollution from boats (gas, oil, fuel spills) and humans (garbage seen in the lake) in both long answer questions.

Limitations

This survey was designed to get feedback from the community about recreation on Lake Windermere, BC. This survey was advertised locally, so visitors and second homeowners who were not in the area during the survey period may not be represented.

Appendix 1A

*Other Activities	# of times selected by a participant
Relaxing	1
Floating	1
Skipping Stones	1
Gathering Place to Enjoy Nature	1
Cultural Activities	1
Photography	1
Conservation	1
Never Use - It's Too Busy	4
Unknown Use	4

Appendix 2B

*Other or Add an Option	"Weekends are over capacity; weekdays are typically ok"
"I'm not sure on lake capacity but I feel there's too many boats... but how could you tell one boat over another not to boat?"	"The lake is very busy on long weekends, weekdays are fine"
"No wake boats!!!"	"During the week is OK but weekends and especially long weekends its very crowded from Indian beach and North."
"A mix of very busy at times and very quiet at other times."	"Cannot comment, do not have enough information"
"Seriously time to take some actions to control the craziness of the traffic"	"In July / August it is at capacity often"
"It's only busy a couple days of the year. It's a ghost town majority of the year."	"Less an issue of the number of boats ... issue is type of boats"
"Depends on time of week/year - very busy (at capacity) during peak times"	"It is busy on busy days, but not every day is busy"

Two Minutes for Lake Health

With this short survey, we hope to better understand the feelings of the community and visitors on the recreational use of Lake Windermere.

Please provide us with your first and last name * this is to ensure the survey is filled out only once per person (Long Answer Text)

Please provide us with your email address * this is to ensure the survey is filled out only once per person (Long Answer Text)

Do you consider yourself a resident or visitor to the area? (Multiple Choice Answer)

- Full-time resident
- Part-time resident
- Visitor

What type of recreation do you typically utilize Lake Windermere for? (Checkboxes Answer)

- Paddling
- Water skiing
- Wake boarding
- Tubing
- Boating – other
- Wake surfing
- Fishing
- Swimming
- Other

How would you describe the number of boats operating on Lake Windermere? (Multiple Choice Answer)

- No concerns
- Busy, but room for more
- The lake reaches capacity
- The lake is already over capacity
- Other

Have you ever felt concerned for your safety due to the number or use of watercraft on Lake Windermere? (Linear Scale Question 1-5)

- 1) I have never felt unsafe
- 5) I feel unsafe often

How interested are you in learning improved boating habits to protect the health of Lake Windermere? (Linear Scale Question 1-5)

- 1) Not interested
- 5) Very interested

How likely would you be to follow voluntary watercraft codes of conduct to protect sensitive habitats and the water quality of Lake Windermere? (Linear Scale Question 1-5)

- 1) Not likely
- 5) Very likely

Would you support installation of slow, no wake zones and buoys directing good travel pathways to protect sensitive habitats and water quality? (Linear Scale Question 1-5)

- 1) I would not support
- 5) I would support

Do you believe there should be a maximum number of boats on the lake at any one time?

(Checkboxes Answer)

- YES
- NO

Would you support the implementation of bylaws and regulations to mitigate impacts of boating activities and boating infrastructure on Lake Windermere values? *Please note, we do not have the authority to implement any type of bylaw or regulation (Multiple Choice Question)

- YES
- NO
- MAYBE, depending on the regulation

Please elaborate on your answer to the question above (Long Answer Question)

What (If any) are your main concerns about Lake Windermere? (Long Answer Question)