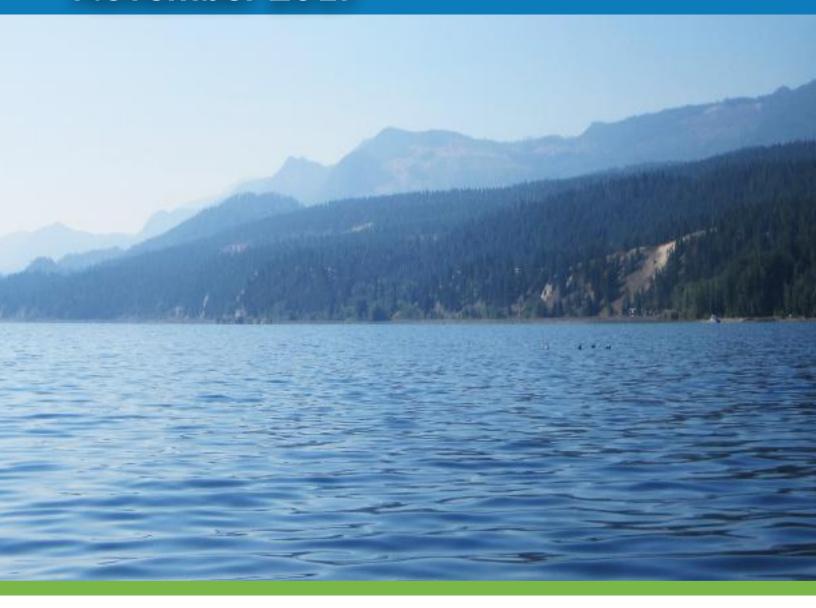
November 2017













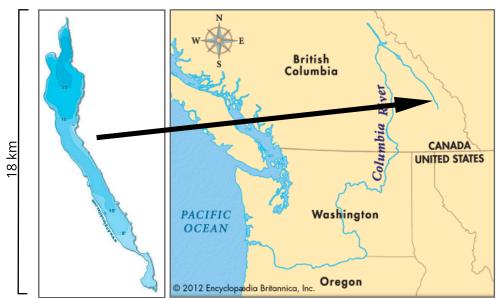
Where Are We?

Lake Windermere, British Columbia, Canada

Lake Windermere is located in southeast B.C., situated within the headwaters region of the Upper Columbia River Basin.

This "lake" is actually a very long widening of the Columbia River - 17.7km long, to be exact!

The headwaters region remains the last free-flowing (undammed) portion of the main Columbia River channel.



The Columbia River, from headwaters to mouth. Inset: Lake Windermere.

The Columbia River begins flowing out of Columbia Lake, located in Canal Flats, B.C. The river then flows in many twists and turns for approximately 2,000km throughout southern B.C., Washington, and Oregon, before eventually emptying into the Pacific Ocean. Lake Windermere is situated right near the source of this mighty river.

What is the Lake Windermere Management Plan?



Plan overview

The Lake Windermere Management Plan (LWMP) outlines a long-term strategy to help guide the sustainable management of Lake Windermere and its shorelines.

The lake and shorelines areas are encompass ed by several local governments, including the Akisqnuk First Nation, Shuswap Indian Band, Regional District of East Kootenay (RDEK), and the District of Invermere (DOI).

The LWMP grew out of recommendations in the 2008 Lake Windermere Official Community Plan, and involved consultation with several key stakeholders. In early 2011, the RDEK and DOI jointly adopted the LWMP.

Plan purpose

The LWMP helps direct local government planning, provides advice to other levels of government, and serves as a tool to help implement local government regulations and sustainable management strategies. These strategies include regulations like surface water zoning and development permit areas (DPAs).

The LWMP has also been the guide for establishing a "Lake Management Committee", a group of committed citizens designated to lead all non-regulatory lake management measures included in the LWMP. These measures include public outreach, education, and giving recommendations about DPA's and water-related referrals to local government.

Who is the Lake Management Committee?

The Board of Directors of the Lake Windermere Ambassadors were appointed by the Regional District of East Kootenay (RDEK) and District of Invermere (DOI) to act as the Lake Management Committee for a 5-year term from 2011-2016. This appointment was recently renewed for 2016-2021.

The positions on the Board of Directors are reserved to represent a diversity of stakeholders, including local business, full-time and seasonal residents, tourism, recreation enthusiasts, ecological conservation professionals, First Nations, and youth. These are volunteer commitments, and the Board welcomes applications to join the Directors on an ongoing basis. The current Board of Directors includes:

- Paul Christy, Chair
- Taoya Schaefer, Secretary
- Cody Hollick, Treasurer
- Wendy Booth (Adviser, RDEK)
- Al Miller (Adviser, DOI)

- Natasha Overduin
- Carole Ruault
- Max Fanderl
- Grace van Melle
- Shawn Ridsdale
- Katherine Watt

Not-for-profit Society

The Lake Windermere Ambassadors are a charitable, non-profit society established in 2010. The Ambassadors are made up of a group of committed citizens and volunteers whose mandate is the protection of the Lake Windermere watershed.

The vision of the Ambassadors is for an ecologically healthy Lake Windermere with balanced management approaches that support recreation and traditional uses, high fish and wildlife values, and economic prosperity in the region.







The Ambassadors grew out of the Lake Windermere Project (2005-2010), an initiative to monitor the ecological health of Lake Windermere and to collect baseline data about ecological water quality in the watershed. Today, the Ambassadors are recognized as an innovative, community-led stewardship group and have served as a model for other B.C. communities to develop similar watershed stewardship and monitoring programs.

What does this Report Card measure?



This report card summarizes progress that has been made towards implementing recommendations from the Lake Windermere Management Plan (LWMP), since its adoption more than six years ago.

This report card will:

- communicate how the LWMP has been implemented to date
- provide recommendations for local governments and the Lake Management Committee to continue implementing the LWMP moving forward.

The aim of this Report Card is to engage the public to learn about the ongoing implementation of the LWMP. It is also intended to seek public feedback and input into future management and planning for Lake Windermere.

After reading this report card, please fill out the survey at the end. This will share your feedback with the Lake Management Committee and local decision-makers.



Why Measure?

After six years, the LWMP is still relevant - yet some recommendations from the plan have not been implemented. By measuring the progress made over the past six years, this Report Card will help to:

- increase public knowledge of the LWMP and its recommendation plans;
- inform local residents and visitors about what regulations and education efforts have been implemented so far;
- keep local governments and the Lake Management Committee accountable and continuing to work towards the sustainable management of Lake Windermere.



Ensuring a sustainable future for the lake and community

Encouraging regulatory implementation by local government and supporting the direct, non-regulatory implementation of the LWMP are the two major roles of the Lake Management Committee.

The Big Picture



Good water management is coordinated between all levels of government and community

"Water governance" refers to how decisions are made about water and watershed resources, and who is accountable for the outcomes.

Water governance is inherently complex, because decisions that impact water are made across many agencies, at all levels of government, and by individual water users, with little coordination between them all.

Development and implementation of policies, legislation, and partnerships related to water resource management and regulation are all governance strategies which help define and clarify the individual roles of government, community, and industry or private stakeholders in the act of water management and stewardship.

Key Successes of the LWMP to date:

- Implementation of lake surface zoning
- Designation of Development Permit Areas (DPAs)
- Recognition of sensitive shoreline habitat areas
- Increased community engagement in local water management issues via public education and stewardship outreach programs
- Local support for ecological and recreational lake water quality monitoring

Areas that need improvement:

- Improved public shoreline access along the east side of the lake
- Sustainable management of in-water structures and enforcement of mooring buoy regulations
- Communication about responsible boating and slow/no-wake zones

Community-driven action

The Lake Windermere Ambassadors (LWA) are working to improve coordination between various levels of government and the local community, to help improve water governance practices within the Lake Windermere watershed. This Report Card is one such example.

Knowing how and who to engage, on what issues, at what time, and through what channels remains a challenge, and requires resources and support from all stakeholders involved.

The LWA are committed to providing leadership and supporting lake management within our watershed. This Report Card is an important document to help improve accountability, highlight positive steps taken, identify where more effort is still needed, and what priorities remain critical for improving lake management in the long-term.

Grading overview

The Lake Windermere Management Plan has six key recommendation areas:

- 1. Lake Boating and Use
- 2. Water Structures and Public Access
- 3. Foreshore Management

- 4. Winter Use
- 5. Environmental Quality
- 6. Upland Use and Management

Each recommendation area has been assigned a grade within this Report Card. The grade corresponds to how much progress has been made on implementation of this recommendation area to date, by either local government or the Lake Windermere Ambassadors. It follows the grading scheme outlined below.









Lake Boating and Use Plan	p. 7
Water Structures & Public Access Plan	p. 8
Foreshore Management Plan	p. 9
Winter Use Plan	p. 11
Environmental Quality Plan	p. 12
Upland Use and Management Plan	p. 13
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	Water Structures & Public Access Plan Foreshore Management Plan Winter Use Plan Environmental Quality Plan Upland Use and Management Plan Final Recommendations Glossary



Lake Boating and Use Plan

A non-regulatory, voluntary approach to implementing safe boating uses on the lake, which are meant to increase safety, reduce negative impacts, and are designed to be advanced through public education.

C (Needs Improvement)



1. Establish and advertise three Non-Motorized Boating areas on the lake to respect environmentally sensitive areas and swimming areas

- The three recommended areas are: Kinsmen Beach, James Chabot Beach, and the wetlands at the south end of the lake.
- Swimming areas at Kinsmen and James Chabot beaches are currently designated Non-Motorized by the presence of buoys.

2. Establish and advertise specific Slow-No Wake/No-Tow and Maximum Speed areas

- R
- Provincial regulations set a standard speed limit of 10 km/hr within 30m (100 ft) of shore.
- Public education about speed areas based on local surface zoning and provincial regulations as well as an accessible public map, buoys, and/or lake-based signage indicating speed restrictions and surface zoning has not been developed.

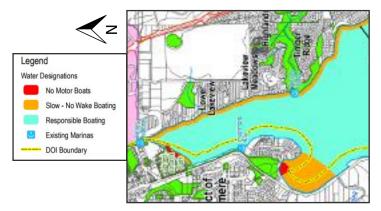
3. Designate and advertise the remainder of the lake as a Responsible Boating area

- R
- The Boat Traffic Code of Conduct suggested by the LWMP has not been officially implemented or advertised.

4. Explore various methods of Boating Management

R

The Boat Management Guidelines suggested by the LWMP have not been officially implemented or advertised.



Example of Map 11 (Lake Boating and Use Plan) from the Lake Windermere Management Plan

Water Structures & Public Access Plan

Recommendations for management, planning, and design of private and public structures on the water including marinas, boat launches, docks, and mooring buoys.



B (Satisfactory)



1. Zone the lake's surface to control location, placement, and number of in-water structures and moorings



- In 2011 the RDEK established six zones on the surface on the lake in order to regulate in-water structures. The DOI also adopted water zoning around the same time.
- Applicants for in-water structures need to get a tenure from the Province, as well as approval from local government, for any mooring buoys or permanent structures along the foreshore.
- Private docks and structures remain relatively unregulated, due to lack of local resources for enforcement. Mooring buoys are provincially and federally regulated, but generally not enforced due to lack of government staff availability.



2. Encourage establishment of public—rather than private—docks and boat launches for private developments, and encourage temporary public moorings for any major new foreshore developments

Any new foreshore developments in the RDEK receive commentary from the Lake Management Committee (LMC). The LMC actively discourages establishment of private marinas, and instead it encourages establishment of public docks and boat launches. The decision ultimately rests with local government.



R

3. Pursue opportunities to install multiple ramps for small boats (non-motorized and/or not requiring a trailer) distributed around the lake at public access points, with parking when possible

The Ministry of Transportation and Infrastructure (MOTI) has jurisdiction over all public right-of-way locations outside the District of Invermere and First Nations Reserve lands. None of these have been developed, largely due to unsuitability of several sites for road access and/or parking.



4. Cap the number of fueling stations on the lake to minimize environmental impact



► The number of fueling stations on the lake is currently restricted at two.



Foreshore Management Plan

Suggested management for enhancement and development of structures on the foreshore, and public use of the foreshore.

B (Satisfactory)



1. Establish Development Permit Areas (DPAs) and require approval prior to construction



- In 2011, the RDEK established foreshore Development Permit Areas (DPAs) with specific recognition of sensitive shorelines. These designated zones are used to inform decisions regarding development proposals on the lake foreshore.
- A DPA permit must be obtained prior to the siting or construction of buildings or structures, and any alteration of lands (including removal of native vegetation).



2. Adopt East Kootenay Integrated Lakes Management Partnership (EKILMP) guidelines for new construction on the foreshore



► EKILMP guidelines are used to inform decisions by the Lake Management Committee when making comments on referral recommendations, and the Lake Windermere Ambassadors are active partners of this organization.



3. Encourage community and individual property owners to restore lakefront habitat

- ► The Lake Windermere Ambassadors are currently engaging communities around Lake Windermere in Year 1 of the Green Shores for Homes project; a voluntary, incentive-based program that encourages waterfront homeowners to restore more naturalized shorelines.
- As part of the Water Structures and Public Access Plan, if refurbishment and relocation of the marina at the north end of the lake goes forward, the old marina site must be restored to provide fish and wildlife habitat (included as part of the Upland Use and Management recommendations).



4. Disallow "private" management of beaches in terms of access from the water, and encourage private developments to inform users that beach areas below the natural high-water boundary are available for public use

- Past effort has been made on behalf of the LWA regarding public beach access messaging, but stronger messaging needs to be put forth in the next few years.
- Not all residents and visitors are aware that beach areas below the high water lines are categorized as public land, and therefore should not be managed as if they are private access only from the water.





5. Encourage community or shared day-use docks rather than private individual docks or a private marina



- ► The Lake Management Committee includes commentary that supports this recommendation for the development referrals they receive and review.
- Decision-making ultimately rests in the hands of local and provincial governments.



6. Consider negotiating a head lease with the Province, for management of the foreshore including docks, marinas, and mooring buoys.



- There is currently little enforcement of dock, marina and mooring buoy regulations because management of these structures falls between federal, provincial, and local governments and these governing agencies lack the resources to deliver combined on-the-ground enforcement.
- A head lease for Lake Windermere would bring decision-making and enforcement down to the local level, but this also comes with increased legal responsibility and requirements for human resources to help deliver enforcement. At this time, a head lease appears impractical but improved messaging about best practices and discussions with private property owners is an alternative option.



7. Consider boat launch and parking fees at public boat launch areas, and explore ways to manage mooring buoys (including a registration system and lottery)



- Fees for use and parking at the public boat launch at the north end of the lake have not been implemented by the DOI, and the site remains free for use.
- Mooring buoy registration and management has not been implemented by either local, provincial, or federal government bodies. The LWA are exploring ways to increase messaging about mooring buoy best practices among boat owners.



Example of Map 14 (Foreshore Management Plan) from the Lake Windermere Management Plan

Sensitive Habitat Inventory Mapping (SHIM) on Lake Windermere outlines different habitat value zones around the lake, based on a Habitat Index analysis and measured Key Habitat Area features done in 2007.

This approach provides a science-based assessment of habitat values for fish & wildlife. There are four zones with colour coding as follows:

Red: very high or high existing ecological values that overlap with key habitat areas, identified as conservation / no development areas, 49% of the shoreline

Orange: key habitat areas, key habitat areas for fish and/or wildlife, most development proposals will trigger the requirement for an environmental assessment, 6% of the shoreline

Yellow: very high and high current ecological values, low risk development may proceed, high risk development will trigger the requirement for an environmental assessment, 27% of the shoreline

Grey: moderate, low and very low current ecological values, there is already significant impact from development, potential for development / redevelopment and restoration, 18% of the shoreline.

Winter Use Plan

A plan to identify designations and recommend uses on the frozen ice in winter.



B (Satisfactory)



- 1. Continue Whiteway operation to provide washrooms, doggy bags, and garbage/recycling, and work with stakeholders to determine most appropriate Whiteway location to reduce conflicts with other lake users.
 - A winter Ice Hut partnership has been developed between the Toby Creek Nordic Ski Club and the Lake Windermere Ambassadors, to encourage stewardship and responsible use of the frozen lake and Whiteway. These services are provided via this partnership.



- 2. Establish a Winter Use Code of Conduct that includes regulations for responsible motorized use of the lake and responsible use of fishing huts
 - Development of a draft Code of Conduct is a priority for the Lake Windermere Ambassadors for the 2018 winter season.
 - The Code of Conduct will be developed in consultation with major stakeholders and will be used to encourage responsible use of the frozen lake in winter.



- 3. Identify responsibilities for management, enforcement, and emergency services on the ice
 - A clear document outlining responsibilities for management, enforcement, and emergency response on the ice has not been developed; however:
 - The Whiteway recreation trail is managed by the Toby Creek Nordic Ski Club through volunteer efforts.
 - Neither local government claims responsibility for management of the frozen lake in winter, although the DOI does measure ice thickness before condoning public access to the ice.
 - The Windermere Fire Department is the designated emergency response team for Lake Windermere.
 - The Winter Use Code of Conduct being developed by the Lake Windermere Ambassadors will aim to reduce the need for enforcement, through widespread community adoption of best practices and responsible winter use of the frozen lake.





Environmental Quality Plan

Recommendations to protect and improve environmental quality.

A (Good)



- 1. Encourage public education about water quality and invasive species, continue ecological water quality monitoring on the lake, and encourage the Province to continue to support water quality monitoring by community groups
 - The Lake Windermere Ambassadors (LWA) continue to sample for water quality and invasive aquatic species with the support of the RDEK and DOI, and communicate this information with the public through outreach, citizen science, and their website.
 - The LWA have worked in conjunction with the BC Ministry of Environment for the lake sampling program in past years, and continue to explore further opportunities for collaboration and monitoring of ecological water quality and quantity in the lake.



- 1 2. Encourage studies on environmental impacts of invasive aquatic species and of the weir/groyne at the north end of the lake
 - The Lake Windermere Ambassadors monitor for invasive plants and mussels through their ecological water quality monitoring program, which is in part supported by the
 - The weir is regulated by the Ministry of Transportation and Infrastructure (MOTI), a provincial government agency. The most recent study into effects of presence of the weir in Lake Windermere was completed in 2008 by a local consulting firm.



- 3. Encourage re-instatement of a water level monitoring station on Lake Windermere and use water study balances to manage the water level
 - Federal streamflow monitoring (Environment Canada) occurred on Windermere creek until 1979, and water level monitoring occurred at Athalmer until 1984. Some motions have been made on behalf of the Lake Windermere Ambassadors to pursue water quantity monitoring on the lake, however this has not yet culminated in output of reliable water quantity data.



4. Discourage the granting of additional water licenses for irrigation until better information is available on how much water is withdrawn compared to licenses



Granting of water licenses is provincially regulated and the right to divert and use surface water or groundwater is authorized by a license, granted in accordance with the statutory requirements of the Water Sustainability Act. Local governments and the Lake Management Committee can only provide recommendations to provincial government agencies regarding granting of water licenses.





Upland Use & Management Plan

The Upland Use plan involves amending RDEK and DOI Official Community Plans, zoning, DPAs, and other bylaws or management activities in upland areas that may affect the lake.

B (Satisfactory)



- 1. Establish a Riparian Development Permit Area (RDPA) in the RDEK and DOI for new developments within 100m of natural shoreline high-water boundary
 - As part of the regulations surrounding the RDEK foreshore development permit areas (DPAs), a stipulation for sensitive shoreline areas is included:
 - For red and orange designated shorelines only (see page 9), the DPA was set for 30m into the Lake and 15 m upland from the natural boundary of the lake.



R

- 2. Encourage the Ministry of Transportation and Infrastructure (MOTI) to remove encroachments on legal public access points to the lake and post visible on-site identification of these sites
 - These public right-of-ways are under provincial jurisdiction, and any development work on these sites requires prior approval from MOTI.



- 3. Work with all stakeholders to ensure that all subdivisions around the lake have appropriate sewage treatment
 - The RDEK engages homeowners on the east side of the lake to join into an existing community sewage plant (Windermere Water & Sewer) when doing a tear-down or renovation on an old property. Application for a building permit initiates this process. If joining the existing community sewer is not an option for the property owner, the RDEK requires the existing septic system be approved by Interior Health as functioning properly, prior to issuing a building permit.
 - The DOI has very few properties not on a community sewer, and those which are permitted septic systems have specific classifications. All areas with applications for septic systems are required to be approved by Interior Health and designed by a Certified Waste Water Practitioner.



Final Recommendations:

Lake Management Committee

(aka the Lake Windermere Ambassadors Board of Directors)

Implementation of non-regulatory procedures, such as encouragement and information sharing

- 1) Continue to expand and disseminate public education and outreach regarding:
 - lake surface zoning
 - safe and responsible boating practices near sensitive areas
 - public access to shorelines below the high water line, and public MOTI right-of-ways
 - ▶ BC Water Sustainability Act and local water regulations, including the LWMP
 - responsible installation and maintenance of mooring buoys
 - prevention of invasive species establishment
 - emergency response on the frozen lake
 - general water quality stewardship messaging
- 2) Help develop signage for public boat launch areas that highlights lake features, dangerous areas, speed restrictions and surface zoning regulations. Also work to develop an accessible public map that can be taken on board a boat.
- 3) Develop a Winter Use Code of Conduct, in consultation with key stakeholders and community members.
- 4) Encourage Ministry of Transportation and Jnfrastructure (MOTI) I to pursue opportunities to restore beach access at public right-of-ways on the east shore of the lake to serve as water access for non-motorized or small boats, and encourage adoption of Green Shores practices.
- 5) Continue to provide commentary for all development referrals, including preference for public docks and non-private beach areas, to better increase public accessibility to the lake.

Regional District of East Kootenay



District of Invermere

Implementation of regulatory procedures, such as permitting areas and OCP designations

- 1) Use the opportunity of updating the 2018 Lake Windermere Official Community Plan (OCP) to include revisions that highlight properly functioning septic systems and could support an updated SHIM study for sensitive shorelines.
- 2) Encourage MOTI to survey public right-of-way sites along the east shore of the lake, and work with MOTI and the LWA to pursue opportunities to develop or enhance appropriate access sites.
- 1) Support the installation of a map and signage at the public boat launch by Pete's Marina, at Taynton Bay, and the unofficial boat launch by Bayshore apartments to help support safe boating practices and increase local area knowledge among visitors.
- 2) Support initiatives to implement Green Shores for Homes along Lake Windermere's shorelines.
- 3) Consider implementing a registry system for mooring buoys installed off public beaches and explore means for enforcement of provincial and federal regulations in collaboration with other governments.
- 4) Continue to receive and thoroughly consider input from the Lake Management Committee regarding relevant development proposals.
- 5) Continue to support the work of the Lake Windermere Ambassadors and the non-regulatory implementation of the LWMP.

Glossary of Terms

Development Permit Area (DPA): A set of development regulations pertaining to a specific area. Any proposed building and subdivision within a DPA requires the issuance of a development permit under the RDEK.

Foreshore: The area of land adjacent to the water's edge - also known as the shoreline.

Head lease: Application for contractual responsibility (in this case, for lake management) to one identifiable lessee.

Hydrometric: Refers to hydrometry, or the monitoring of components of the hydrological cycle including rainfall, groundwater, water quality and flow quantity.

Mooring buoy: A type of buoy to which boats can be moored offshore. It is distinct from a navigational buoy, and comes with a specific set of federal regulations for identification and placement; the placement of a mooring buoy is subject to review and approval under the Navigable Waters Protection Act.

Official Community Plan (OCP): A comprehensive plan created by an incorporated municipality or regional district which dictates public policy in terms of key service areas such as planning, transportation, utilities, land use, recreation, housing, development, etc. The OCP describes a community's vision for five or more years. It guides the decisions of elected officials and local government staff.

Riparian: Relating to or situated on the banks of a river or stream.

Water Sustainability Act (WSA): BC's new WSA establishes the broad legal framework for managing water in British Columbia. The WSA states legal requirements within which the provincial government is expected to act. For more information, visit: https://engage.gov.bc.ca/watersustainabilityact/regulations/

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We want to hear from YOU!

Please fill out the following survey, and either:

- a) Take a photo and submit to: info@lakeambassadors.ca
- b) Mail completed survey page to: PO Box 601 Invermere, BC V0A 1K0

Your voice matters and we value your feedback. Thank you!

Y / N / Somewhat	l was familiar with the	was familiar with the Lake Windermere Management Plan before reading this docume						
Y / N / Somewhat	This document helped clarify the recommendations included in the LWMP for me.							
Y / N / Somewhat	-	helped clarify the roles and responsibilities of local government and the ere Ambassadors in implementing the LWMP.						
Which aspect of lake r	management matters n	nost to you? (<i>Circle</i>	one)					
Environment Upland	d Mgmt Foreshore Mg	mt Winter Use	Boating	Public Acces	s In-Wate	er structures		
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Do you have any other comments you wish to make about the LWMP or this Report Card?								
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up for your e	e-newsietter	Demographics (ch	eck all boxes tha	t apply)				
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Full Name:		Circle age group: Under 18, 18-30, 31-40, 41-50, 51-60, Over 60						
Address:		☐ Student ☐ Employed ☐ Retired						
		Favourite use of th	e lake (check all	that apply):				
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	□Water	☐Waterskiing/wakeboarding ☐XC-Skiing/Skate-skiing						

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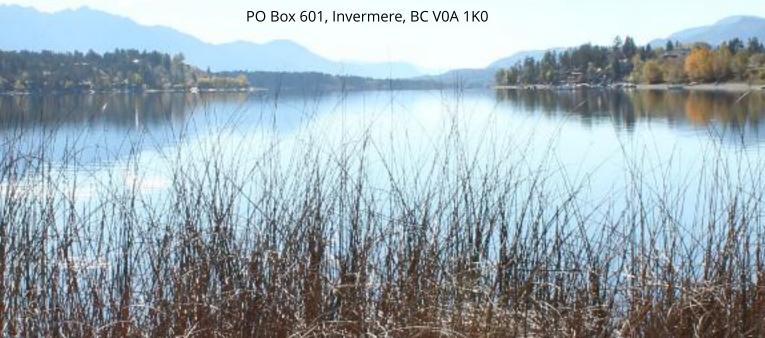
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Living Lake









