



**Foreshore Inventory Mapping for Aquatic Species at Risk
Final Report
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Prepared By

Georgia Peck, Program Manager, with content from Bruce MacDonald, Project Director

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Executive Summary

Living Lakes Canada (LLC) is pleased to provide the 2020 – 21 Final Report for the “Foreshore Inventory Mapping for Aquatic Species at Risk” Project. Foreshore Inventory Mapping (FIM) is a methodology developed in 2002 in partnership with Fisheries and Oceans Canada (DFO). It maps foreshore habitats, assesses habitat value and establishes Foreshore Development Guidelines to conserve ecosystems and species of conservation concern. The project will evaluate and apply revised FIM standards and methodologies drafted in March 2020 to ensure the long-term credibility of the methods, consider the various types of lakes to be assessed (regulated, natural, mountain ecosystem, boreal forest ecosystem, etc.) and provide a benchmark by which to compare habitat changes over time. The revised methodology will be applied to priority lakes as new or re-FIM projects, assessing the rate of change of shoreline health. This project aligns with the Small Lakes Action Plan through the conservation and restoration of shallow water habitats and fish and wildlife species' habitat. By determining cumulative development impacts along the shoreline, assessing and classifying habitat value, directing shoreline development to protect high value habitats, and identifying areas suitable for restoration, the Foreshore Inventory Mapping for Aquatic Species at Risk Project has benefited the foreshore and littoral habitats of four high priority lakes in the Columbia Basin.

During year 1 of this project, foreshore and littoral habitats have benefitted by determining development cumulative impacts along the shoreline, assessing and classifying habitat value, directing shoreline development to protect high value habitats, and identifying areas suitable for restoration on 4 priority lakes in the Upper Columbia Basin. Species and their surrounding habitats are being protected in conservation zones, and/or through the use of guidelines and Best Management Practices (BMPs) for development in less sensitive or ubiquitous habitats.

FIM field assessments of 2 high priority, small lakes (Whitetail and White Swan) were completed in 2020 in addition to 2 completed re-FIM field assessments which took place on 2 high priority, small lakes (Windermere and Moyie). This initial assessment involved further field testing of the revised FIM methodology in order to ensure modifications are appropriate and effective for addressing species at risk and their habitats, and communicated accurately via the standards and methods document. Four Shoreline Development Guidelines Reports have been finalized for each individual lake assessed in 2020. The Shoreline Guidance Documents utilize the Aquatic Habitat Index generated during the FIM assessment, and establishes guidelines that direct shoreline development such as docks, retaining walls, or dredging activities in an effort to protect high value shoreline habitats for fish and wildlife, including species at risk. Additionally, a new consultant was introduced and trained to conduct Foreshore Integrated Management Planning. Ideally, more consultants that are trained will result in more competitive bids for future lakes.

A list of acronyms is provided because many have been updated to better reflect the process or concept they represent. For example, the entire Program name has been changed (as a result of consensus reached during first year Technical Workshops held in Nelson) from “Foreshore Inventory Mapping and Shoreline Development Guidance for Columbia Basin Species at Risk”

Program, to the “Foreshore Integrated Management Planning (FIMP)” Program. The new name more accurately describes the overarching objective of the components that make up a FIMP Project (e.g., Foreshore Inventory and Mapping [FIM] survey, Foreshore Habitat Sensitivity Index [FHSI] analysis, and the Foreshore Development Guidelines [FDG] report). With that in mind, two other frequently used acronyms have been updated (but see the full list below):

1. The “Shoreline Guidance Document” (SGD) is now referred to as the “Foreshore Development Guidelines” (FDG), and
2. The “Aquatic Habitat Index” (AHI) is now referred to as the “Foreshore Habitat Sensitivity Index” (FHSI).

Table 1- List of Acronyms

New Acronym	Old Acronym	Description of Acronym
FIMP Program	FIM/SHIM Program	Foreshore Integrated Management Planning / Foreshore Inventory and Mapping / Sensitive Habitat Inventory Mapping
FDG	SGD	Foreshore Development Guidelines / Shoreline Guidance Document
FHSI	AHI	Foreshore Habitat Sensitivity Index / Aquatic Habitat Index

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Introduction

Since 2004, shoreline impacts by human development on Columbia Basin lakes has increased dramatically. As a result, the East Kootenay Integrated Lake Management Partnership (EKILMP) and Kootenay Lakes Partnership (KLP) were formed. The Partnerships were established as government-to-government, multi-agency and multi-stakeholder partnerships to develop integrated, collaborative approaches to lake and foreshore management. FIM has been applied on 13 lakes since 2006. In this time we have learned that modifications need to be made to the standards and methods to improve the quality and consistency of data collected and interpreted. Changes in legislation provincially and federally, as well as technology advancements also need to be considered and implemented. Some lake reports are more than 10 years old and many changes have occurred on the shoreline since. It is timely to revisit these priority lakes to assess the rate of change and improve the application for decision making.

Foreshore Integrated Management Planning (FIMP) is a process intended to help agencies; non-profit organizations; local, provincial and federal governments; and landowners understand lake foreshore habitat values and the prospective risks from proposed shore- altering activities for surveyed lakes. This process has been developed to be adaptable to available financial resources, development pressures, lake size, lake ecology and other variables. Foreshore Integrated Management Planning specifically allows the rate of change to be determined if data from previous surveys are used. Using rates of change, risks to key shoreline areas can be easily determined, facilitating informed land use decisions. This process provides the public and government agencies with the important information necessary to make key decisions regarding foreshore development and conservation. The methods herein are intended to help standardize the mapping and assessment of lakes and provide a framework for more consistent application of the approval process for shoreline development at a local, provincial and federal level.

Foreshore Integrated Management Planning projects rely heavily on a suite of biological methods that were developed in partnership with Fisheries and Ocean Canada in 2004. These methods were designed to map shoreline habitats, assess habitat value, and establish Foreshore Development Guidelines (FDG) to conserve ecosystems, support climate resiliency, and protect species of conservation concern. The FIMP methodology has been overhauled (as of March 31, 2021) and is explained in detail in Schleppe et al. (2021). The methodology has three main components:

- **Foreshore Inventory and Mapping (FIM)** is a biological methodology developed by consulting biologists in partnership with DFO. The FIM methodology was derived by adapting an existing stream mapping protocol, called Sensitive Habitat Inventory and

Mapping (SHIM), for use on lakes. As the name implies, FIM is used to delineate, inventory, and map lake foreshore habitats.

- **Foreshore Habitat Sensitivity Index (FHSI)** is a quantitative analysis that relies on simple mathematics to help account for, and then reduce multiple biological variables into an intuitive, easy to interpret index. The index consists of five Ecological Ranks (e.g., Very Low, Low, Medium, High, and Very High) that describe the existing habitat value and sensitivity to urban development activities.
- **Foreshore Development Guidelines (FDG)** is a report that summarizes the technical analysis (i.e., the FHSI) and recommends development guidelines to help protect high-value and sensitive habitats located along the lake foreshore.

FIMP assists in identifying the land use, shore type, existing riparian condition, and anthropogenic alterations along the foreshore. Based on this data, the shoreline is broken into a number of segments. The FIM serves as a benchmark for regulatory agencies by documenting current foreshore condition, and provides evidence for regulatory investigations and will assess objectives set out in foreshore protection initiatives. The Fish and Wildlife Habitat Assessment uses scientific analysis to identify zones of sensitivity and key habitat features, and rank shoreline segments using the Foreshore Habitat Sensitivity Index (FHSI). Fish, bird, and wildlife habitat and occurrence and aquatic invertebrate presence/absence data is collected during the summer and fall over a one year period. The FHSI quantifies the Ecological Value for each shoreline segment and identifies the potential if anthropogenic alterations were to be removed.

This project uses outreach, collaboration, training, research, monitoring, mapping, evaluation, and planning to conserve habitat for, and mitigate threats to aquatic species at risk. The project is targeting the Kootenay River (white) sturgeon population, shorthead and columbia sculpin, and westslope cutthroat trout and bull trout. An objective for the forthcoming renegotiation of the Columbia River Treaty includes the reintroduction of anadromous pacific salmon to the Columbia River system in Canada. Successful reintroduction will require suitable habitats. This project will help ensure existing natural habitats are protected for the potential future use of salmon species, specifically lakes that historically supported salmon such as Windermere, Columbia, and Brilliant Headpond (Kootenay River).

Overall, the lasting legacy of the project will benefit local First Nations, stakeholder and/or community through:

- a) long-term protection for aquatic species at risk habitats through the incorporation of the resulting Shoreline Development Guidelines by local, regional, and provincial governments' existing governance structures and planning initiatives such as Development Permit Areas and Official Community Plan policies and objectives, water

surface zoning regulations and identification of provincial Section 16 Map Reserves for species at risk

- b) long-term access to the data through the Columbia Basin Water Data HUB initiative, a framework for addressing water monitoring data collection and open source data storage needs in the Columbia Basin that will lead to more informed, collective water resource monitoring and decision-making towards increased ecosystem and community resiliency in the face of a changing climate,
- c) strengthening and supporting the East Kootenay Integrated Lake Management Partnership and Kootenay Lake Partnership by establishing a venue for strengthening relationships and collaboration amongst the partnerships, d) identifying priority areas for restoration through classifying habitat value potential based on whether shoreline modifications were to be removed, and e) establishing a baseline by which future changes along the foreshore can be compared well beyond the length of the project, to give communities an understanding of cumulative impacts to foreshore health over the long-term.

Goals and Objectives

The overall goal of the project is to improve information about foreshore health and species at risk habitat requirements for priority Upper Columbia Basin lakes and rivers, and conserve and restore habitats of highest ecological value.

The objectives of the project include:

- a) Integrate technological advances and improvements to the FIM methodology, and data storage and access for Columbia Basin waterbodies,
- b) Complete FIM assessments for priority waterbodies to fill knowledge gaps,
- c) Update priority lakes using FIM (re-FIM) based on development pressures and presence of species at risk, and assess the rate of change over time,
- d) Incorporate First Nation Traditional Ecological Knowledge as it pertains to species at risk and where appropriate,
- e) Implement land-use policies, regulations and/or designations to conserve habitats of highest ecological value, and,
- f) Promote stewardship and conservation of high value habitats through education and outreach initiatives.

These objectives align with the Small Lakes Action Plan through *COLSLK.ECO.HB.10.01 Conservation and restoration of shallow water habitats-P2* and *COLRLL.ECO.HB.32.01 Conservation and restoration of fish and wildlife species' habitat-P3*, by determining cumulative development impacts along the shoreline, assessing and classifying habitat value, directing shoreline development to protect high value habitats, and identifying areas suitable for restoration. Development activities such as building docks or removing riparian vegetation are ranked for their potential negative impacts to the various habitat types. In some cases sensitive habitats are designated as too sensitive for development and can be incorporated into local or regional plans as conservation areas. Species and their habitats are protected in conservation zones, or through the use of guidelines and Best Management Practices (BMPs) for development in less sensitive or ubiquitous habitat.

In the long-term, the implementation of the Shoreline Development Guidelines into policy will aid in recovering fish habitat values, specifically species at risk, lost to past development impacts and protect and enhance culturally important areas for First Nations. Furthermore, the classification of shorelines allows governments, community groups and the general public to understand where the high value fish and wildlife habitats are located thereby providing a better understanding of the natural values of the waterbody and areas that require a high level of protection.

Study Area

Year one of this project took place on four high priority lakes in the Upper Columbia Basin. Lake Windermere (Invermere, BC), Moyie Lake (Cranbrook, BC), White Tail Lake (Canal Flats, BC) and Whiteswan Lake (Canal Flats, BC).

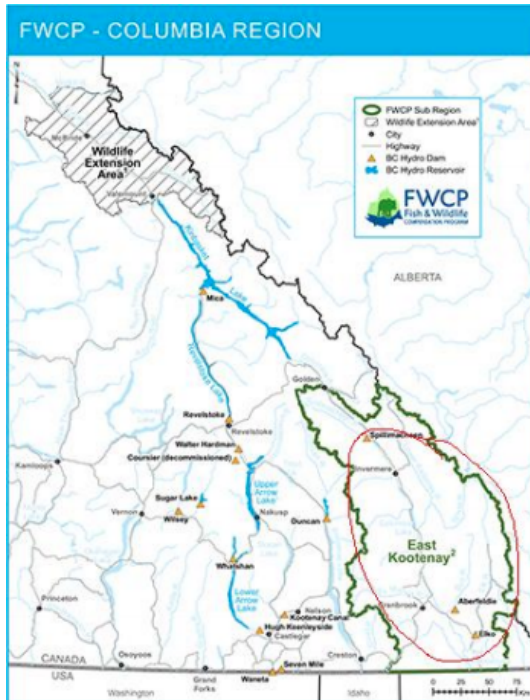


Figure 1: Map of study area outlined

Methods

Foreshore Integrated Management Planning is a methodology developed in 2002 in partnership with Fisheries and Oceans Canada (DFO). It maps foreshore habitats, assesses habitat value and establishes Shoreline Development Guidelines to conserve ecosystems and species of conservation concern. Using revised FIMP standards and methodologies drafted in March 2020 and published in April 2021, this project evaluated and ensured the long term credibility of the methods, prioritized the various types of lakes to be assessed (regulated, natural, mountain ecosystem, boreal forest ecosystem, etc.), and provided a benchmark by which to compare habitat changes over time. The revised methodology was applied to 4 priority lakes, two of which (Lake Windermere and Moyie Lake) as re-FIMP projects, to assess the rate of change of shoreline health.

This project began with Project Team and Technical Committee Meetings to review Revised FIM Standards and Methods, confirm priority lakes and refine workplan for Year 1 of the project. Multiple meetings were held, primarily between the FIMP Program Director, Bruce Mac Donald and the acting FIMP Program Manager, Ryan Cloutier, to help keep the Program leaders aligned and updated.

Following the project start-up, field reconnaissance was completed by Bruce Mad Donald, FIMP Program Director. Bruce traveled alone, via truck to different lakes in the upper Columbia Basin. The trip was completed in 5 days. Through visual inspection either by boat or shore visit, the

shoreline was assessed to identify the relative level to which shoreline development has changed habitat classifications for each lake since the year of completion of the initial FIM assessment. The purpose of the reconnaissance was to identify which lakes have had the greatest change over time, in order to best prioritize the FIM and/or re-FIM assessments and target opportunities for improving species at risk and their habitats. A finalized list of priority lakes for FIM and/or re-FIM was created and revised methodology was field tested. Candidate lakes were identified, assessed, and prioritized (i.e., ranked) using the criteria listed in Table 2. The criteria include key considerations that support a robust and defensible way for determining the final, prioritized list of lakes.

Table 2. Lake Prioritization Criteria

Criteria	Description	Rational for Inclusion
1. Geographic Location	Refers to the geographic location of a lake. Candidate lakes must be located in the Upper Columbia basin (as defined in Section 2.0).	Candidate lakes must be located in the Upper Columbia Basin—lakes outside this area were not considered further.
2. Accessibility and Feasibility	Refers to the ability to safely, economically, and reliably access the lake. Very small lakes (e.g., less than X km ²) were deemed unfeasible and not considered further.	<p>Accessibility and feasibility are considered because they represent potential safety and economic challenges relevant for Project success.</p> <p>Lakes with barriers to accessibility or feasibility were de-prioritized for assessment.</p>
3. Stakeholder Interest	Refers to the level of interest expressed by First Nations, government, community groups, and other stakeholders towards surveying a particular lake.	<p>Stakeholder interest is considered because it embodies various elements crucial for overall Project success, including Project buy-in, utility, and likelihood of implementation and impact.</p> <p>Lakes with high stakeholder interest were prioritized for assessment.</p>
4. Development Pressure	<p>Development pressure refers to known or anticipated developments on the lake foreshore. Development pressure was quantified via:</p> <ul style="list-style-type: none"> • Number of permits submitted to regulatory agencies for lake foreshore developments • Observations made during field reconnaissance surveys • Professional judgement based on the social, economic, and political landscapes • Land ownership distribution (e.g., crown versus private). 	<p>Development pressure was considered because it helped identify which lakes had the highest urban development pressure. Urbanization can have negative effects on fish and wildlife and their habitats.</p> <p>Lakes with high development pressure were prioritized for assessment.</p>

5. Species at Risk	<p>Species at Risk (SAR) refers to species that are at risk of being extirpated and includes sightings of individual species or their mapped habitats. The following SAR designations were included:</p> <ul style="list-style-type: none"> • Provincial conservation status rankings (e.g., blue-, red-, and yellow-listed plants and animals) • COSEWIC-listed species • Schedule 1-listed species under the <i>Species at Risk Act</i> 	<p>Species at Risk were considered because protecting SAR is one of the overarching objectives of the Project.</p> <p>Lakes with many documented SAR (or their habitats) were prioritized for assessment.</p>
6. Field Reconnaissance	<p>Field reconnaissance refers to observations made during site visits to select lakes, and might include observations such as:</p> <ul style="list-style-type: none"> • New foreshore infrastructure (e.g., docks, marinas, buildings) • Changes to foreshore vegetation (e.g., lost riparian vegetation) • Changes to foreshore substrates (e.g., erosion areas or manicured beaches) • Changes in accessibility. 	<p>Field reconnaissance was included in the assessment to help verify development pressure, stakeholders concerns, and accessibility.</p> <p>Field observations have the potential to prioritize or de-prioritize a lake for assessment, depending on the factor considered and field observations recorded.</p>
7. Financial Considerations	<p>Refers to various funding considerations, which might include:</p> <ul style="list-style-type: none"> • Overall cost to survey a lake • Availability of in-kind funding • Funds required to survey a lake (which might be influenced by lake size, weather). 	<p>Financial considerations were included in the assessment because funding is finite, and LLC aims to deliver the best possible results given the available budget.</p>
8. Professional Judgement	<p>This criterion reflects the professional judgement, experience, and knowledge of the LLC Project Team. Professional judgement includes considerations such as:</p> <ul style="list-style-type: none"> • FIM Technical Committee advice or recommendations (on which lakes should be re-surveyed) • Anecdotal knowledge of nearby productive fish and wildlife habitats (e.g., lakes that support an abundance of sport fish or important winter range for ungulates) • Professional judgement based on the social, economic, and political landscapes. 	<p>Professional judgement was considered because it provided the flexibility to consider ideas, beliefs, and other anecdotal information (that don't fit nicely in the other criterions) to be included in the prioritization process.</p> <p>Professional judgement has the potential to prioritize or de-prioritize a lake for assessment, depending on the factor considered.</p>

Field work followed lake prioritization and consisted of FIM field assessments of 2 high priority, small lakes (Whitetail and White Swan) in addition to 2 completed re-FIM field assessments which took place on 2 high priority, small lakes (Windermere and Moyie). This initial assessment involved further field testing of the revised FIM methodology in order to ensure modifications are appropriate and effective for addressing species at risk and their habitats, and communicated accurately via the standards and methods document. Additionally, a new consultant was introduced and trained to conduct Foreshore Integrated Management Planning. Ideally, more consultants that are trained will result in more competitive bids for future lakes. After FIM assessments, Foreshore Development Guidelines were completed for all four individual lakes assessed in 2020. The Foreshore Development Guidelines utilize the Foreshore

Habitat Sensitivity Index generated during the FIM assessment, and establishes guidelines that direct shoreline development such as docks, retaining walls, or dredging activities in an effort to protect high value shoreline habitats for fish and wildlife, including species at risk.

Data entry and analysis followed, where The LLC Program Team also implemented a comprehensive data management, storage, and access strategy that will function effectively into the future. All previously collected FIMP data in the Columbia Basin can now be accessed through the Columbia Basin Water Hub; a central place for open water data, scientific research, and collaboration in the Canadian Columbia Basin. This easy access to historical and present FIMP data and reports assisted with community outreach and engagement. Due to COVID-19 restrictions, outreach and training was delivered online, as much as possible, and in-line with provincial health authority guidelines.

Results, Outcomes, and Discussion

Living Lakes Canada has achieved significant successes in year 1 of the Foreshore Inventory Mapping for Aquatic Species at Risk Project. Through Project Team and Technical Committee Meetings, a realistic and detailed workplan to deliver all project tasks within year 1 of the project was established. Topics discussed at these meetings included the lake prioritization report, methods report, budget, field reconnaissance planning, RFP's and associated schedules, First Nations Traditional Ecological Knowledge and involvement in the project, and planning for future project years. The project team is pleased that all critical plans, tasks, and deliverables were completed on-time and within budget.

Further outcomes of year 1 of this project include 1 finalized Lake Prioritization Report, which includes 1 Candidate Lake List to help guide subsequent years of the project and maximize impact of the work completed. Additionally, revised methodologies were field tested on all 4 surveyed lakes, and used to assist with training a new consultant to complete FIMP work. This updated methodology field testing led to 1 finalized published Foreshore Integrated Management Planning Methods Report (Schleppe et al., 2021). Using these FIMP methods, 2 high priority, small lakes (Whitetail and White Swan) were surveyed and 2 high priority, small lakes (Windermere and Moyie) were re-surveyed. These assessments resulted in 4 completed FIM Reports and 4 Foreshore Development Guideline Reports for each surveyed lake in 2020.

During community engagement, 4 webinars and 1 video tutorial were delivered, many with recordings that have been posted online to help raise awareness of the FIMP datasets and final reports. 1 method calibration exercise and introduction to the FIMP methodology was completed on Windermere Lake in August 2020. Information was disseminated via LLC website, youtube recordings, uploads to the Columbia Basin Water Hub and through the LLC newsletter, which has a mailing list of 2,000 individuals. Finally, GIS mapping layers depicting FIM data including shoreline habitat classification, shore type, modifications, etc. have been made available online in an accessible and interactive web mapping tool to ensure application of FIM results for land-use decision making, especially as it pertains to species at risk and their

habitats. FIM maps can be accessed via Community Mapping Network through the Columbia Basin Water Hub.

Living Lakes Canada, including FIMP partners and advisors gratefully acknowledge the financial support of the Fish and Wildlife Compensation Program for its contribution to the Foreshore Integrated Management Planning Program.

Recommendations

Species at risk are expected to benefit if the Foreshore Development Guidelines are implemented by regulatory agencies since the Foreshore Development Guideline reports provide a suite of recommendations that aim to protect sensitive habitats and minimize the disturbance that urban development usually impose on natural systems. Several example recommendations from the Windermere FDG report (Schelpe and McPherson 2021) are listed below:

- Use the environmental information to update the Official Community Plans, and associated Development Permit Area designations for Windermere Lake to help identify, plan, and design around these important biological features. Also consider this information for Regional Growth strategies, and other planning and policy tools. Where possible, link these planning documents with other tools that are available at the Provincial or Federal level in an integrated management plan. This is important because it is likely that no one level of government has all the tools necessary to appropriately plan and manage lake shoreline areas.
- Carefully consider any permit applications that will densify the shoreline. Many remaining rural areas were deemed of Very High or High value and were typically overlain with ZOS. Regardless of protection measures, it has been observed that slow, incremental losses will inevitably continue to occur. This means that once a new project is approved and constructed, over time the simple increased intensity of use will result in increased disturbances along the shoreline area. It is the mechanism of shoreline densification and urbanization that is likely the single most important factor affecting shoreline change. The biggest risks typically occur when rural is re-zoned to a denser land use such as single family, multi family, industrial, or commercial.
- Retaining wall structures were typically vertical in nature. An inventory and determination of what is needed to help facilitate removal and transition of these walls to bioengineered erosion control structures under the Water Sustainability Act is important. A specific toolkit that addresses permitting and submission requirements would be useful, and could likely be

developed in conjunction with other Provincial regions. For instance, for some locations it may be nearly impossible to remove some vertical walls due to other legally approved infrastructure. Whereas, in others it may be easily feasible. It is important for the Province to identify policies to help proponents determine submission requirements and design guidelines for erosion control structures. (i.e., including what is most appropriate and where). This will aid in application submissions and facilitate removal of these structures.

- Motorized access area restrictions are currently in place in the WMA to minimize environmental impacts to wetland and upland habitats. The current legal restrictions make the area off-limits to motorized watercraft. The restriction reflect that motorized access may cause: abandonment of nests, harassment of wildlife, increased predation, flooding of nests from boat wakes, destruction of emergent vegetation, bank erosion and siltation, and increased invasive plant abundance and spread (Province of BC 2021). Darvill 2019 specifically recommended marking the WMA with educational buoys alerting all recreational users of this boundary.
- Prepare a greenspace legacy plan that designates a total quantity of greenspace that is desired to be maintained into the future to support a healthy and vibrant shoreline. The goal would be to sustain both residents and tourism, as well as habitats and species that rely upon the lake. This plan should also include maintenance of appropriate connectivity to upland ecosystems and wildlife habitats over the long term.
- It is highly suspected that the ongoing, intensive recreational use and moorage along the shoreline will continue to impact these important emergent vegetation areas, through slow and incremental losses. Education and compliance and enforcement is required to reduce the potential for ongoing impacts. The Lake Windermere Ambassadors may be a good conduit for education, while periodic Conservation Officer presence could help with compliance and enforcement. It is recommended that signage, educational programs, and other forms of communication with lakeside residents and tourists alike are used to help avoid the small, incremental impacts to these important areas.
- Invasive aquatic species such as Eurasian Watermilfoil (*Myriophyllum spicatum*), Zebra Mussel (*Dreissena polymorph*) and Quagga Mussel (*Dreissena bugensis*) when present, result in severe impacts to the economy and environment (Darvill 2017). There should be continued recognition and financial support to the Lake Windermere Ambassadors, for their efforts to monitor for invasive aquatic plant and mussel species. It is important to detect invasive species early so that a rapid management response can be implemented (Darvill

2017). Since the inception of the Inventory Project in 2009 through to 2020, no aquatic invasive plant or mussel species have been detected (Darvill Pers. comm. 2021).

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Kootenay Lake Partnership

Lake Windermere Ambassadors

Living Lakes Canada

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Confirmation of FWCP Recognition

Recognition of FWCP's support has been given where applicable including:

Foreshore Integrated Management Plan- Landing Page (Living Lakes Canada):

<https://livinglakescanada.ca/project/foreshore-inventory-mapping-in-the-columbia-basin/>

Lake Inventory Program wraps up year 2:

<https://livinglakescanada.ca/2021/02/15/lake-inventory-program-wraps-up-year-2/>

Attachments

1. [Lake Prioritization Process for the Upper Columbia Basin](#)
2. [Foreshore Integrated Management Planning Methods](#)
3. [Whitetail Lake FIMP 2021](#)
4. [Whiteswan Lake FIMP 2021](#)
5. [Moyie Lake FIMP 2021](#)
6. [Windermere Lake FIMP 2021](#)
7. [Whitetail Foreshore Development Guideline 2021](#)
8. [Whiteswan Foreshore Development Guideline 2021](#)
9. [Moyie Foreshore Development Guideline 2021](#)

10. [Windermere Foreshore Development Guideline 2021](#)