

Foreshore Integrated Management Planning on **Francois Lake**

*Building Community Resilience through
Collaborative Foreshore Assessments*

February 4, 2025



Living Lakes Canada and FIMP





Foreshore Integrated Management Planning

Maps shoreline habitats, assesses habitat value and establishes Shoreline Development Guidelines to conserve ecosystems, support climate resiliency and protect species of conservation concern.



Windermere Lake. LLC Photo

Foreshore Integrated Management Planning

FIMP study area: lake littoral zone to 50m upland of the High Water Mark



1) Foreshore Inventory and Mapping (FIM)

Delineates, inventories, and maps lake foreshore values.

2) Foreshore Habitat Sensitivity Index (FHSI)

Describes the existing habitat value and sensitivity, based on the 5 ecological ranks (very low, low, moderate, high, very high), to urban development activities.

3) Foreshore Development Guidelines (FDG)

Summarizes the analysis and provides recommendations for development guidelines and Best Management Practices for decision makers and Rightsholders.

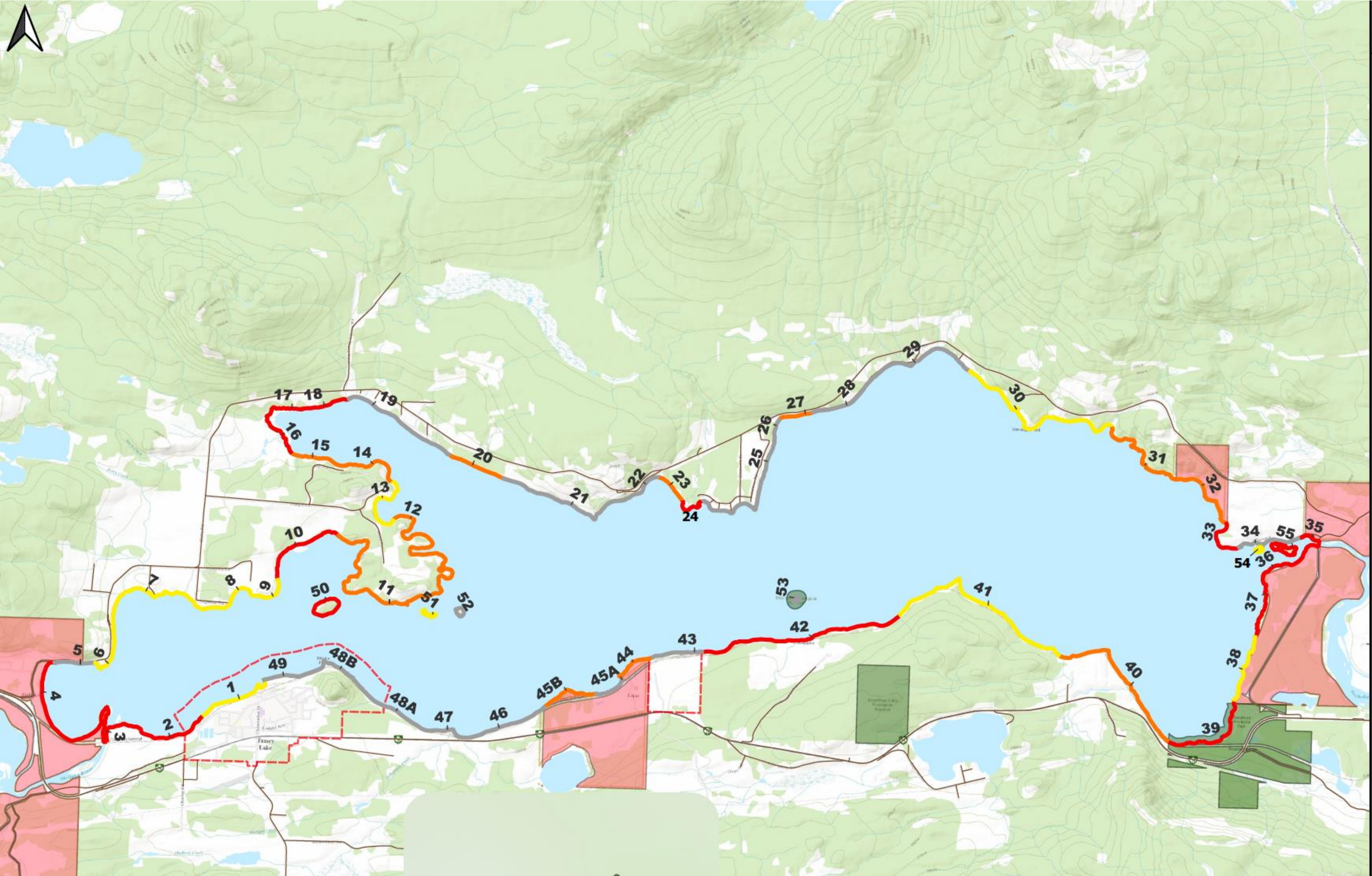
Fraser Lake Foreshore Inventory
Segment FHSI Ranking Overview

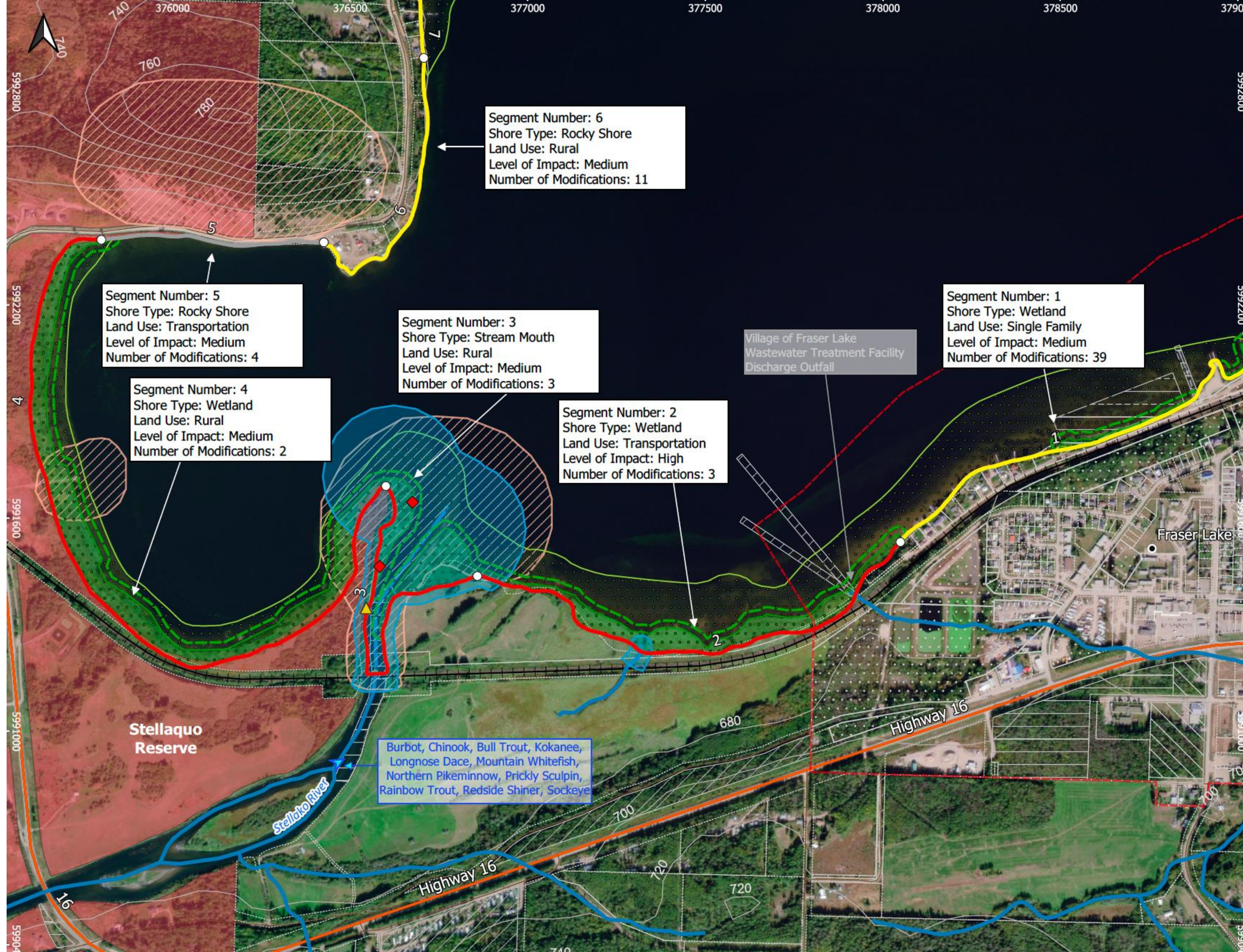
Cadastral Boundaries

- Provincial Parks
- First Nation Reserves
- Village of Fraser Lake

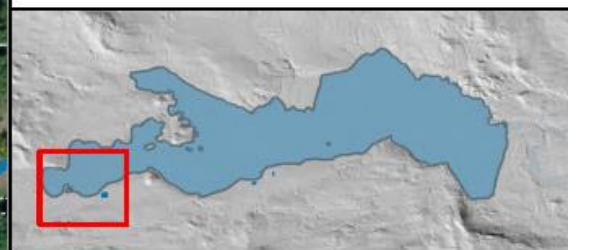
Foreshore Habitat Sensitivity Index

- Very High
- High
- Medium
- Low / Very Low

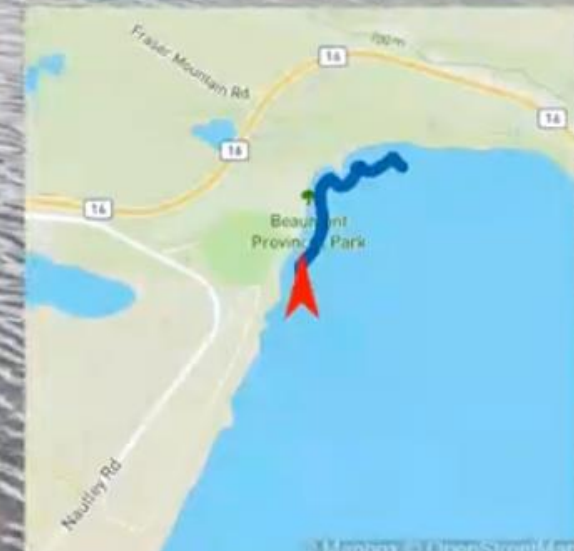




- Railway
 - Highways
 - Road
 - BC Freshwater Atlas Streams
 - Contours (20 m)
- Cadastral Boundaries**
- First Nation Reserves
 - Provincial Parks
 - Village of Fraser Lake
 - Crown Agency
 - Crown Provincial
 - Untitled Provincial
 - Municipal
 - Private
- Foreshore Habitat Sensitivity Index**
- Very High
 - High
 - Medium
 - Low / Very Low
- Zones of Sensitivity**
- Stream Mouths
 - Wetlands
 - Wetlands 20m buffer
 - Shallow/Wide Littoral
 - SBSdw3/102 Ecosystem (inc. rock outcrops/grassland)
 - Fm02 Ecosystem
 - Culturally Sensitive Areas
- Fish / Wildlife Features**
- Beaver Lodge
 - Raptor Nest
 - Fish Species within Tributary/Upstream (summarized from provincial data)



Fraser Lake Foreshore Inventory and Mapping Segment 39



Francois Lake FIMP

Project Team:

- Ecoscape and Lotic Environmental
- Wet'suwet'en First Nation
- Ts'il Kaz Koh First Nation
- Stelat'en First Nation
- Cheslatta First Nation (pending)
- Airrays Drone Services
- Living Lakes Canada

Project Steering Committee:

- Fraser Basin Council- Nechako Watershed Roundtable
- Ts'il Kaz Koh First Nation
- Nechako Environment and Water Stewardship Society
- Regional District of Bulkley-Nechako
- BC Parks (Francois Provincial Park)
- Living Lakes Canada



Day 1 and 2 we will launch from east end (July 3-4)

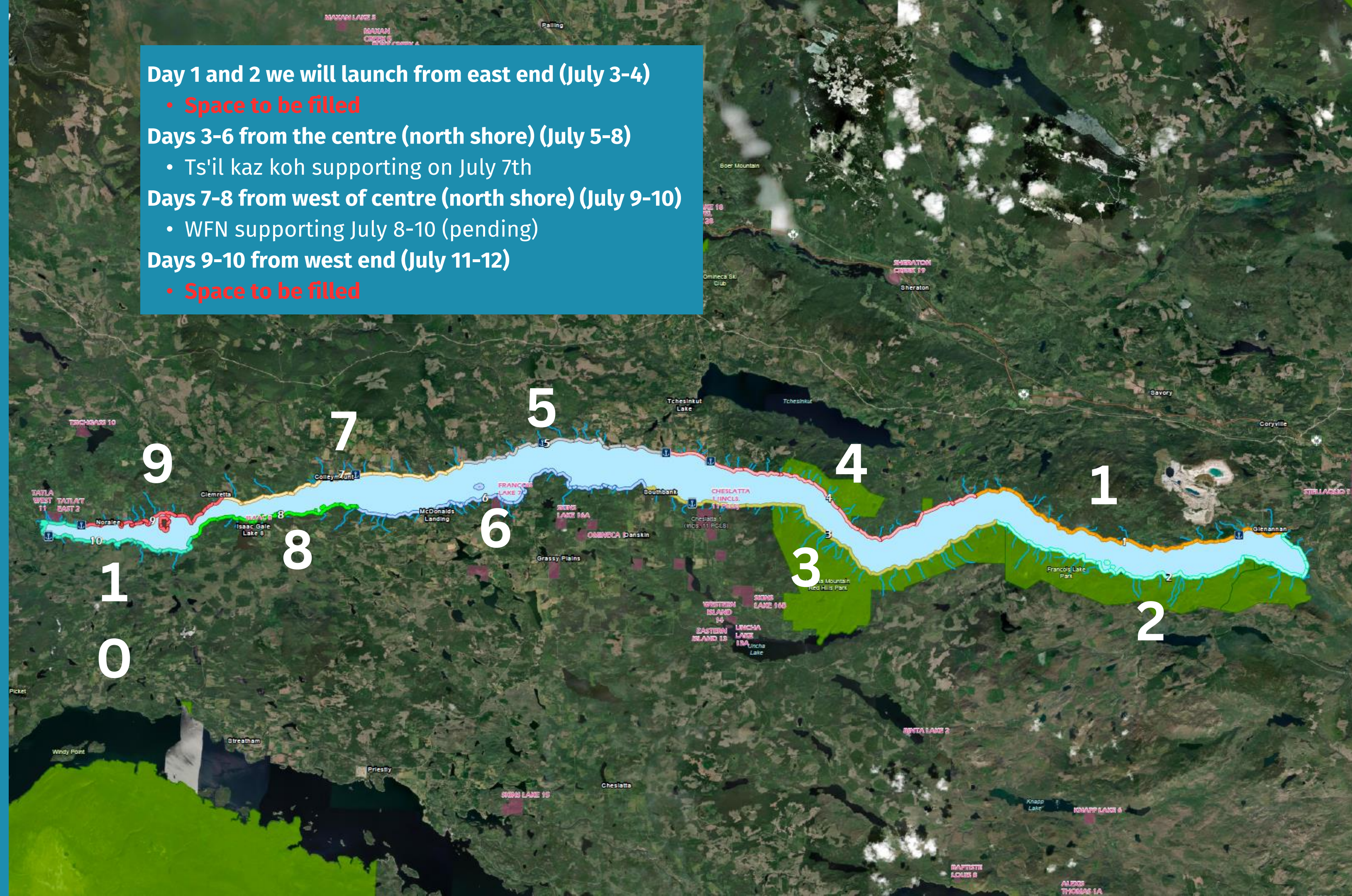
Days 3-6 from the centre (north shore) (July 5-8)

- Ts'il kaz koh supporting on July 7th

Days 7-8 from west of centre (north shore) (July 9-10)

- WFN supporting July 8-10 (pending)

Days 9-10 from west end (July 11-12)



Francois Lake FIMP

Project Timeline:

- Field work taking place July 2-16th
- Drone footage collection taking place soon after
- Desktop review and report writing fall 2025
- Draft report review winter 2026
- Final reports, maps, and drone footage available in spring 2026
 - Available on the FIMP landing page and interactive map resource
- Community outreach and engagement occurs throughout the project timeline



2023 Fraser Lake Foreshore Survey

Findings:

- 65% of the shoreline was in natural condition (46.5 km), while 35% was disturbed (24.5 m).
- Highly impacted areas were associated with dense residential developments, the CN railway, roads, and areas that had been cleared for agricultural/rural land uses.
- Between the 2012 and 2023 surveys, disturbed shoreline increased by 1.9 km (~2.6%), representing an annual increase of 155 m or 0.2%.
- 12 Culturally Sensitive Areas were identified and represented on the FIMP maps.
- Five Zones of Sensitivity were identified and recommended with a high level of conservation.



Fraser Lake – Nadleh Bun

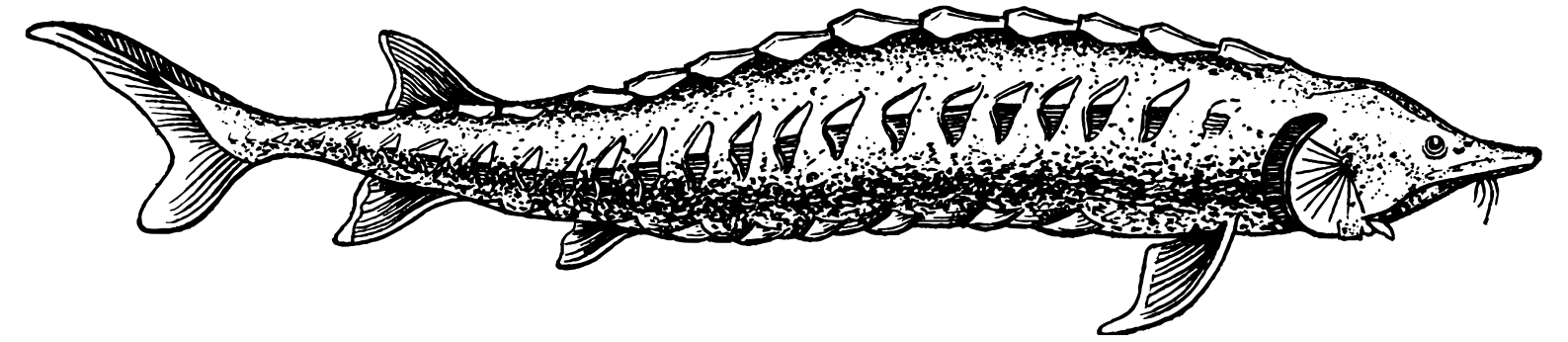
Foreshore Integrated Management Plan – 2023



Prepared for:
Living Lakes Canada
PO Box 6911
Nelson, BC, V0A 1K0

June 11, 2024

2023 Fraser Lake Recommendations



- 1. Designation of conservation areas (ZOS);**
2. Update the RDBN and Village of Fraser Lake OCPs with the results of the FIMP;
- 3. Establish a Waterfront Development Permit Area and any Land Planning Processes within OCP's**
 - a. Implement a collaborative permitting process for the WDPs;**
4. Conduct a formalized archaeological assessment and develop a local Chance Find Procedures document;
- 5. Implement a co-governed compliance and enforcement committee;**
6. Consider climate change during foreshore planning;
- 7. Encourage communal boat launches and shared docks;**
8. Prohibit the placement of mooring buoys and docks in wetland and stream mouth ZOS;
- 9. Manage livestock access in front of waterfront properties;**
10. Encourage riparian restoration efforts in disturbed areas;
- 11. Complete a lake wide mussel survey to determine the extent and distribution of mussels throughout the lake.**

Thank you!

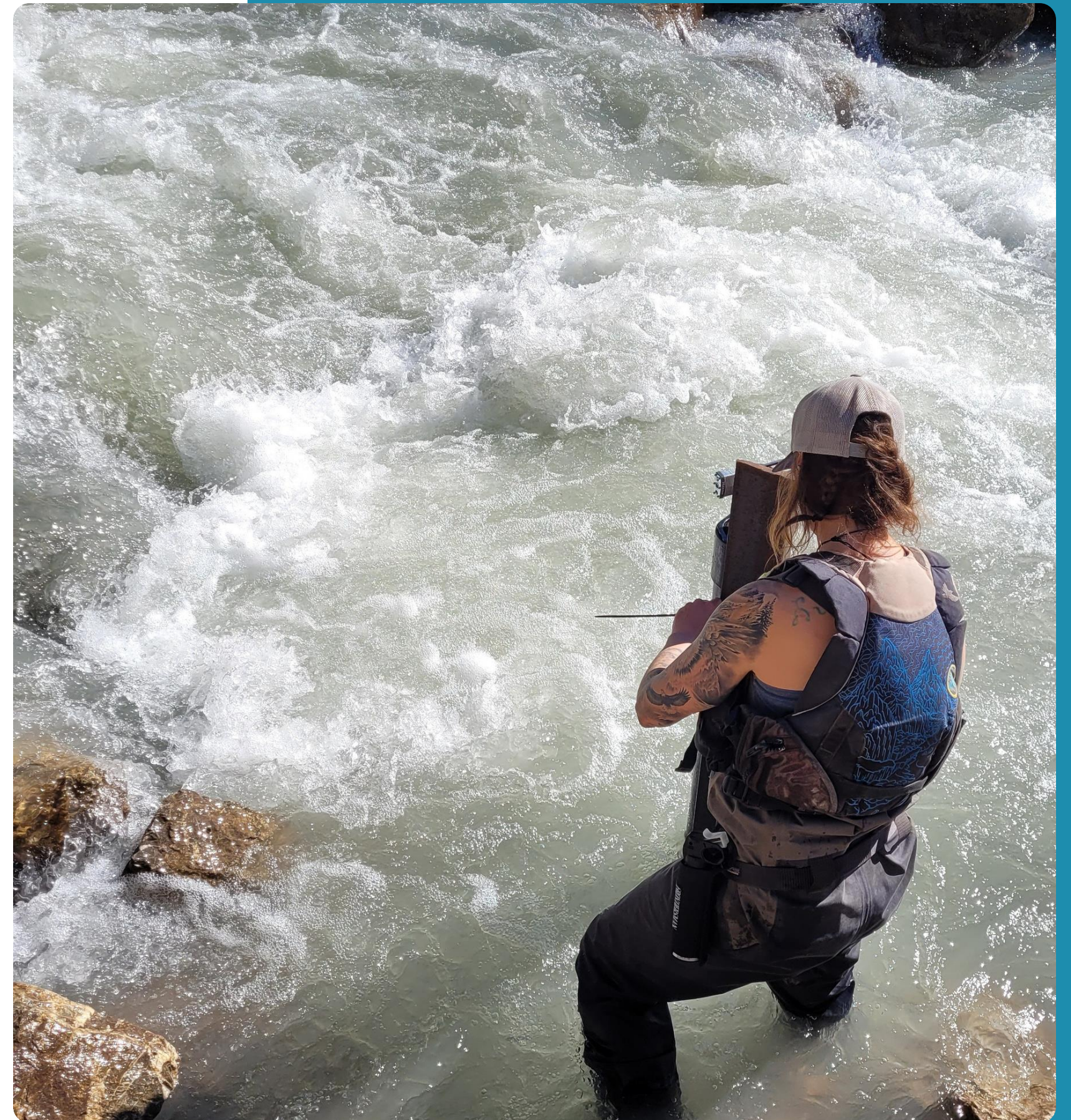
Learn more

www.livinglakescanada.ca

Contact us

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Hydrometric monitoring on Delphine Creek. LLC Photo