

UBC SUSTAINABILITY SCHOLARS REPORT, SUMMER 2022

LOCAL INDIGENOUS KNOWLEDGE AND VALUES FRAMEWORK OVERVIEW Developed with Support from the Upper Nicola Band

# Foreshore Integrated Management Planning



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#### **DISCLAIMER**

This report was produced as part of the UBC Sustainability Scholars Program, a partnership between the University of British Columbia and various local governments and organizations in support of providing graduate students with opportunities to do applied research on projects that advance sustainability across the region.

This project was conducted under the mentorship of Living Lakes Canada staff. The opinions and recommendations in this report and any errors are those of the authors and do not necessarily reflect the views of Living Lakes Canada or the University of British Columbia.

# FRAMEWORK OVERVIEW

In contract with Fisheries and Oceans Canada (DFO), Living Lakes Canada (LLC) manages Foreshore Integrated Management Planning (FIMP), a decision-making tool to help governments, Indigenous Nations (Nations), landowners, and nonprofit organizations understand lake foreshore habitat values and the potential ecological risks from proposed shore-altering activities. The overarching goal of FIMP is to improve the quality and quantity of information about lake foreshore habitat integrity to inform evidence-based decision making. It achieves this by mapping shoreline habitats, assessing habitat value, and establishing Foreshore Development Guidelines to conserve ecosystems, support climate resiliency, and protect species of conservation concern. The FIMP process produces a Foreshore Inventory Mapping (FIM) Report and Foreshore Development Guidelines (FDG). The FIM report provides technical information on the collection and analysis while FDG directs decision makers including Nations, provincial and local governments, residents, developers, environmental collaboratives, and others.

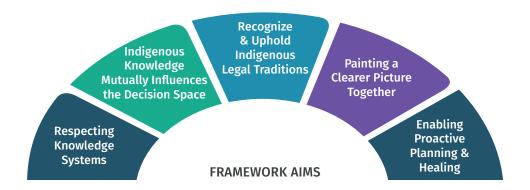
The Local Indigenous Knowledge and Values Framework was developed to improve the FIMP methodology to better support Indigenous perspectives by interweaving of Indigenous Knowledge and Values. The framework presents an opportunity to position Nations as a local governmental body with decision making power and for Indigenous Knowledge to be a priority and a normalized reference point for water stewardship instead of a less formalized or legitimate approach. It was developed from feedback and insight from Brian Holmes of the Upper Nicola Band and will be applied to the FIMP re-survey of Nicola Lake in 2023.

The framework consists of three main components: responsibilities, guidelines, and aims. Responsibilities between the project coordinator and the project consultants have been identified and outlined (which uphold the guidelines and aims). Directive guidelines have been described, including the scope and strategy for interweaving knowledge systems, ensuring effective communications of both the results and recommendations, adapting the FIMP protocol to the local context, and ensuring data collection methods are inclusive and transparent.



## AIMS

Particular aims or directions have been identified as instrumental to producing successful outcomes within the interweaving of Indigenous Knowledge and Values and, subsequently, supporting the governance, rights, leadership, and presence of Nations. We recognize that Indigenous legal traditions are not formally recognized by Canadian law and can be dismissed but we want to provide an opportunity to include them and encourage adoption to outline the desired Nation's protocols.



#### RESPONSIBILITIES

LLC has been contracted by DFO to manage the FIMP program and regularly utilizes consultants to conduct individual assessments. The responsibility section informs each party's required duties to complete the interweaving of Indigenous Knowledge and Values within FIMP. The cultural capability framework outlines the complete general set of responsibilities for each party beyond the typical emphasis on doing (which will be adapted to the specific context).



**CULTURAL CAPABILITY FRAMEWORK** 

# GUIDELINES

Guidelines have been developed to provide target objectives and associated actions to ensure the interweaving process is successful and the deliverables are effective in influencing and guiding decision makers.

#### SUMMARY OF KEY UPDATES REGARDING INTERWEAVING

- Recognize and interweave Indigenous Knowledge and Values beyond TEK
- Consultants utilize a process that is mindful of overburdening communities and develop associated strategies to support involvement in spit of limited capacity (provide sufficient resources to Nations and ensure the team has the cultural capabilities to support the work)
- 'Adapting' the FIMP process to center Indigenous ways of knowing and being to ultimately be guided in parallel by Indigenous legal protocols, methodologies, and theory
- As directed, Nation's governance practices, protocols, and processes should influence and guide site level development guidelines such as the stepwise process and risk matrix where possible to influence settler decision makers and governments. Although the guidance from Nations might interfere with the area's local government protocols, the framework can encourage discussions to reach common ground and build relationships.
- Consultants create a formalized agreement with the Nation(s) around data sharing, engagement, and interweaving in way that does not overburden communities
- Providing more opportunities for Nations to revise and review FIM and FDG, and design more of an inclusive, continuing engagement process as opposed to a one-time transaction
- Promote more general discussion between Western Scientific and Indigenous Knowledge to explore how they can work in tandem to create a better understanding of foreshore health
- The Foreshore Development Guide maps incorporate and recognize Nation's priority issues/areas of concern paramount to the ecological values identified
- Support Nation's current and desired access points (for cultural and historical areas, fishing, recreation, and livelihood dependent activities) to the lake by documenting them in FDG maps (while maintaining privacy) and providing recommendations to support access
- Incorporation of a section to include areas of potential/further investigation/knowledge gaps which will allow Nations to express additional concerns and recommendations (related to potential future zones of sensitivity and beyond)

#### OTHER GENERAL UPDATES

- Improving user-friendliness and communication with use of an executive summary, more accessible language, visual abstracts, and improved content organization
- Inclusion of local laws and context to better inform decision makers
- Strategies for partnerships between Nations on lakes with shared use areas
- Emphasizing use of effective local networks that already exist
- Acknowledging and accounting for upstream impacts or other disturbances that impact the lake foreshore

## FIMP OVERVIEW WITH INDIGENOUS KNOWLEDGE AND VALUES FRAMEWORK

The following graphic provides an overview of the different components of FIMP with the inclusion of Indigenous Knowledge and Values which greatly expands the ability for Nations to recenter their strategies, interests & concerns.

# **PROJECT PLANNING**

#### **Determine Lakes for Assessment**

- Prioritization of lakes to assess based on Nation's interests
- Secure funding for Nation(s) to participate

# Engage Nation(s)

Begin engaging Nation regarding FIMP process and project planning

#### **Consultant Selection**

LLC selects consultant based on criteria that includes consultant's experience with Nation(s)

#### **Project Plan**

Create a formalized agreement with Nation around data sharing, engagements, interweaving strategy

# **ASSESSMENT**

#### **Field Surveys**

- Field assessment and data collection
- GPS and aerial photograph assessment
- Video documentation of lakeshore

# Desktop Review

- Existing resource review
- Baseline field maps
- Preliminary
  Shoreline
  Segment
  Breaks

#### TEK

- Year-round
  observations
  of ecological
  information (fish
  spawn areas, nesting
  grounds)
- Key ecological areas (willows providing water filtration)
- Other existing information

# Cultural & Archaeological

- Spiritual, culturally, and archaeologically important areas
- Species of concern
- Access points
- Processes for interacting with Nation over site development/Indigenous legal protocols
   Other existing information
- Indigenous Governance & Other Knowledge
- General lake management principles/knowledge
- Principles and protocols for upholding Indigenous legal protocols
- Strategies for collaboration and relationship building

## **ANALYSIS**

## **Foreshore Habitat Sensitivity Index**

- Field assessment information (shore type, substrates, percentage natural, vegetation, etc.)
- Non-FIM (fisheries, wildlife waterfowl, ecosystem, rare or endangered species or ecosystems)
- Any other relevant information from desktop review

# Areas of Concern from Nation(s)

- Spiritual and culturally important areas
- Nation current and desired access points
- Archaeological areas

# Indigenous Lake Management, Governance, and other knowledge

- General lake level management principles
- Species of concern/cultural important species
- Processes for interacting with Nation over site development/how to uphold Indigenous legal protocols

#### **COMPILING**

#### Maps

- Overview map or multiple layers that incorporate Indigenous areas of interest/ concern (cultural, archaeological, etc.) in paramount with the FHSI
- Ability to view individual map layers such as the FHSI map, Indigenous access points, areas of concern (cultural & archaeological)

# **Development Guidelines**

- Utilizes map that demonstrates all sensitive and important areas (not just ecological)
- Include stepwise process and risk matrix that incorporates Nation's concerns just as strongly as the FHSI/Western science
- Mitigation hierarchy developed with Nation(s)
- Nation(s) provide direction on the process homeowners/property developers should undertake when a site is being developed (Lists processes for interacting with Nation over site development, provided by Nation, list Nation's requirements for project to succeed)

#### Lake Level Recommendations

- Nation's recommendations for lake management including accessing the lake and governance
- Directing protection of culturally important species
- Shared recommendations from both Indigenous and Western scientific perspectives
- Western Scientific and ecological recommendations

# Areas of Potential/ Further Investigation

- Capture concerns and interests not included previously
- Could include Nation's recommendations related to the site investigation (ie. need to conduct archaeological survey, need for cultural expert to analyze a site)
- More general areas of potential expressed by Nation (ie. need for shared governance table between province and Nation or increased training for scientists)