

Reassessing the shoreline, **reconnecting with place**

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In British Columbia, Canada, a landmark shoreline survey is bringing Indigenous Knowledge and Western science together to guide the future of Kalamalka Lake (Figure 1) and Wood Lake (Figure 2).

Kalamalka Lake, named after a Syilx leader whose village once stood at its head, and nearby Wood Lake lie within Syilx Okanagan territory, where water has long been central to life, culture, and identity. These lakes were once places of gathering, healing, and abundance, supporting fisheries, travel routes, and settlement for generations.

Over the past century, however, development, privatization, and increasing recreational use have reshaped these shorelines. Access has been restricted,



Figure 1. Kalamalka Lake, known as *k'ək'mapłqs*, before 1913. Museum and Archives of Vernon Photo.



Figure 2. Wood Lake and Cariboo Trail in 1897. Source: Lake Country Museum and Archives Photograph Collection.

ecological integrity has been compromised, and longstanding relationships between people and water have been disrupted.

Today, a new collaborative effort is working to better understand, and ultimately restore, these lakes. Co-led by the Okanagan Indian Band (OKIB) and Living Lakes Canada, a comprehensive shoreline survey is documenting both ecological conditions and cultural values, offering a more complete picture of what these lakes are, and what they can become.

At the heart of the project is a commitment to seeing the landscape through more than one lens. Rooted in the principle of Two-Eyed Seeing, the work brings together Indigenous Knowledge and Western science in a way that allows both to inform decision-making. A Local Indigenous Knowledge and Values Framework, co-developed by Living Lakes Canada and the Upper Nicola Band, guides the process, ensuring that cultural perspectives are not added on, but embedded from the outset.

To assess ecological conditions, the team is applying the Foreshore Integrated Management Planning (FIMP) protocol, revisiting surveys first conducted in 2009. Using boats (Figures 3 and 4), drones, and field observations, the survey maps shoreline habitats, evaluates ecological health, and tracks how the lakes have changed over time.

Running alongside this work is a Cultural Overview Assessment led by OKIB in partnership with Kwusen Research. Through conversations with Knowledge Keepers, the assessment documents cultural and archaeological values that have long defined these waters but have often been overlooked or excluded from formal planning processes.

For the Okanagan Nation, the significance of these lakes extends far beyond their physical characteristics. At the head of Kalamalka Lake, known as *k'ək' məplq̓s* in *nsyilxcən*, land once designated as reserve was taken in 1913 under the McKenna–McBride Commission, cutting off direct access to the water. This loss was not only physical, but deeply cultural and spiritual.

“The surrounding lake was regarded as a medicinal lake, where medicine men treated ailing people,” recalled a descendant of Chief Kalamalka in a 1979 interview. “It has been said that if a person



Figure 3. Kalamalka Lake FIMP Training. LLC Photo.



Figure 4. Kalamalka Lake FIMP Training. LLC Photo.

entered the lake while it was changing colour from the sun’s rays, they could be cured.”

Today, barriers to access remain. Privatized shorelines, development pressure, and experiences of discrimination have limited Indigenous use of these lakes. As one cultural advisor reflected, “It was pretty obvious that the new white people that came in really

enjoyed that beach and enjoyed it much more without any Indians on it.”

Despite these challenges, the knowledge and stories tied to these places endure. Through the Cultural Overview Assessment, several Culturally Sensitive Areas have been identified, sites of deep historical and cultural importance. While many archaeological features have been lost to development, their significance

continues through community memory and cultural teachings.

By documenting these values alongside ecological data, the project creates space for voices that have too often been excluded, helping to shape a more inclusive approach to shoreline management.

The work is also building capacity within the OKIB community (Figure 5). Eight members completed a Living Lakes' two-day training program that combined scientific methods with cultural perspectives on shoreline assessment. Four of those participants went on to join field crews, collecting data and capturing drone imagery alongside environmental consultants.

For those involved, the experience is more than technical training, it is a reconnection with place.

Looking ahead, the survey covers 42 kilometres of Kalamalka Lake shoreline and 13 kilometres of Wood Lake. Results, expected later this year, will map ecological value, identify areas of disturbance, and inform new Foreshore Development Guidelines.

But the impact of the work is already being felt.

For Living Lakes Canada, this project represents an evolution in how shoreline assessments are conducted, moving from

purely technical exercises toward approaches that recognize the importance of relationships, history, and lived experience.

For OKIB, it reflects the continuation of Syilx stewardship within their territory, supported by new tools and strengthened partnerships.

Together, the project offers a model for how freshwater management can be approached differently, one that respects Indigenous leadership, integrates multiple ways of knowing, and responds to both ecological and cultural realities. In doing so, it moves beyond understanding the shoreline as a boundary, and instead re-establishes it as a place of connection, responsibility, and care.

Andy Miller brings a career in project management and operations to the Deputy Director role at Living Lakes Canada. Born and raised in the UK, he arrived in Canada, then to the East Kootenay, after working across England,

Scandinavia, and Spain. He brings more than 30 years of experience in working with, developing and supervising multiple teams, and planning



and executing organizational demands across a variety of industries: manufacturing, engineering, transportation, tourism, communications and marketing, retail and, most recently, the environmental nonprofit sector.

Georgia Peck is the Lakes Program Manager at Living Lakes Canada, where she has led the Foreshore Integrated Management Planning (FIMP) program since 2020. In this role, she oversees nationally recognized, community-driven lake stewardship initiatives that support evidence-based decision-making across Canada. With a professional background spanning public outreach, environmental education, and the management of local stewardship organizations, Georgia brings a strong applied perspective to freshwater governance. She holds a Bachelor of Science in Conservation Biology from Trent University and is currently completing a Master of Environmental Practice at Royal Roads University. In 2022, Georgia co-authored the "Local Indigenous Knowledge and Values Framework," a foundational advancement for lake assessments that meaningfully bridges Indigenous Knowledge systems and Western science within a federally developed protocol. Her work has helped embed reconciliation, respect, and practical collaboration into lake management practices nationwide.



Tammy Davies is the Research Manager for the Okanagan Indian Band. She conducts cultural research for various projects and is a cultural anthropologist.



Figure 5. Kalamalka Lake shoreline during the FIMP training with OKIB. LLC Photo.

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