

UPPER KOOTENAY LOCAL REFERENCE GROUP

EXPANDING WATER MONITORING IN THE CANADIAN COLUMBIA BASIN BACKGROUND

WHAT IS THE COLUMBIA BASIN WATER MONITORING FRAMEWORK?

The goal of the Columbia Basin Water Monitoring Framework is to establish a unified monitoring network to support the tracking and understanding of climate impacts on water supply for communities and ecosystems. Living Lakes Canada is facilitating the implementation of a methodology to establish the required monitoring network, based on selection criteria that reflect local community priorities within a scientific water balance approach.

Living Lakes Canada recognizes this project is taking place in the unceded traditional territories of the Ktunaxa, Lheidli T'enneh, Secwepemc, Sinixt and Syilx Nations who have stewarded these lands for generations.

WHAT IS THE UPPER KOOTENAY HYDROLOGIC REGION?

According to a Western science hydrology model, the Columbia Basin can be divided into 10 hydrologic regions (HRs) reflecting broad differences in climate. Living Lakes Canada is working to implement this project in new HRs each year. In 2023, we are expanding the project to include the Upper Kootenay Hydrologic Region (Figure 1).

The Upper Kootenay Hydrologic Region includes the City of Cranbrook, the communities of Tobacco Plains and aq'am, the Height of the Rockies Provincial Park, Kooacanusa Reservoir, the Flathead River valley, and surrounding areas. The Elk River Valley was already included in the 2022 Pilot Implementation of the project, but input on this part of the region is still welcomed.

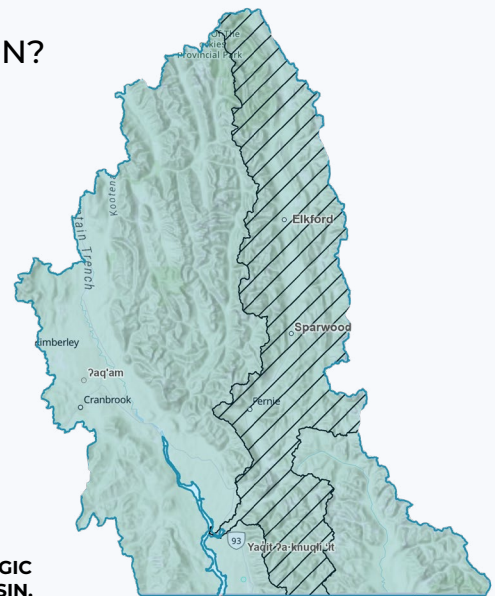


FIGURE 1. THE UPPER KOOTENAY HYDROLOGIC REGION IS ONE OF 10 IN THE COLUMBIA BASIN.

WHAT IS A LOCAL REFERENCE GROUP?

A Local Reference Group is composed of individuals who have interests or knowledge of the HR. Engagement with these individuals ensures that local values and interests are represented by the monitoring network.

Participants include, but are not limited to:

- Indigenous governments and knowledge holders
- Municipal and regional governments
- Environmental stewardship groups
- Industrial water users
- Tourism and recreation operators
- Community drinking water systems
- Private sector consultants
- Provincial government staff
- Academic researchers
- Interested community members

WHAT IS THE ROLE OF A LOCAL REFERENCE GROUP?

Participants of the Local Reference Groups are invited to share their knowledge, concerns and priorities. This engagement is carried out through in-person meetings, virtual meetings, online surveys and one-to-one interviews, facilitated by the Local Reference Group Coordinator. The Local Reference Group Coordinator will share this information with the broader project team. Participants may provide types of information including, but not limited to:

- water quantity and quality issues
- watershed histories and stories
- occurrence of past extreme events
- water demands
- past watershed impacts from development or natural disturbance
- groundwater issues
- changes in snow/precipitation
- glacier changes
- current and past water monitoring initiatives
- sources of existing data
- information about access and logistics for local water bodies
- opportunities for collaboration and synergies

The Local Reference Group is consulted throughout the duration of the project.



WHAT IS A WATER BALANCE?

In the Western science field of hydrology, a water balance equation can be used to describe the flow of water in and out of a system.

The goal of this project is to create a water balance for the Columbia Basin. An expanded water monitoring network that provides the data required to measure the Basin's water balance is a strong foundation for responding to key environmental water concerns associated with the climate crisis. A Data Gap Analysis is conducted to identify existing data gaps in the region, and scientific needs required to build the Water Balance.

WHAT IS A PRIORITY MONITORING MATRIX?

This is a tool developed to help select locations for monitoring. The information provided by the Local Reference Group is included in the Priority Monitoring Matrix, along with the results of the Data Gap Analysis. Sites will be selected based on the combination of the community priorities and scientific needs to create a water balance, resulting in a nested, cost-efficient approach to water monitoring.

HOW DO I PARTICIPATE IN THE LOCAL REFERENCE GROUP?

Participants may take part in in-person or online meetings, complete a survey, have one-to-one discussions with the Local Reference Group Coordinator for their region. These inputs will be shared with the project team, and incorporated into the Priority Monitoring Matrix to inform monitoring site selection.

If you are interested in participating in the Local Reference Group, please contact:



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