BUILDING OUR RELATIONSHIP FOR WORKING TOGETHER ON WATER SUSTAINABILITY

REGIONAL DISTRICT CENTRAL KOOTENAY

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LOWER KOOTENAY BAND

INTRODUCTION

What to expect

- Sharing information and listening
- Background (Watersheds 101, research, RDCK water projects)
- Path forward (Water Sustainability Plan information, survey results so far, how to get involved)
- Questions & Discussion period

engage.rdck.ca/goatwatershed

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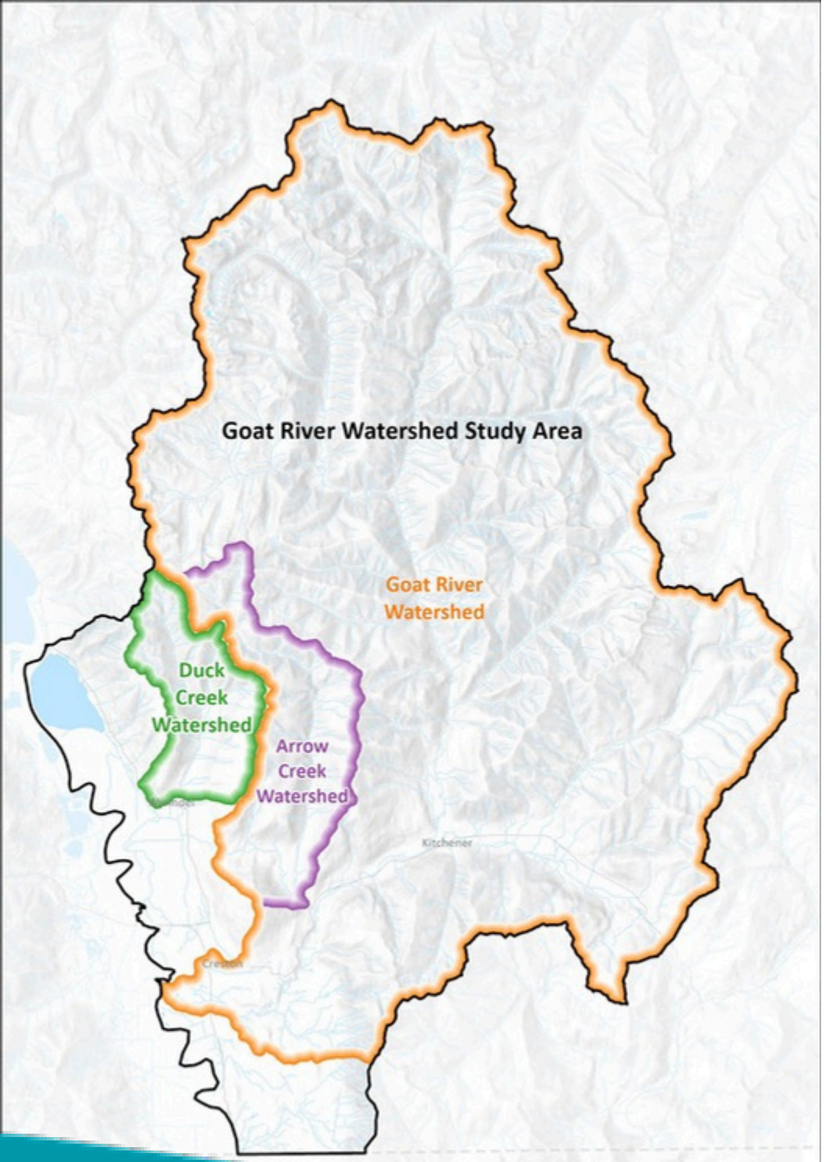

PROJECT INFORMATION

Goat River Watershed Sustainability Planning

The RDCK in collaboration with yaqan nuʔkiy, is doing water sustainability planning to respond to growing concerns about water availability in the Goat River Watershed (includes the communities of Canyon, Erickson, Kitchener, Lister, Town of Creston, West Creston, Wynndel, and yaqan nuʔkiy). This effort aims to protect the quantity, health, and resilience of the local watershed that supports communities, ecosystems, and economies. **It starts with engagement.**

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PROJECT COORDINATION

Collaborative Engagement

RDCK

- Camille LeBlanc—Community Resilience Coordinator
- Paris Marshall Smith—Sustainability & Resilience Supervisor

yaqan nuʔkiy

- Isaac Dekker—Watershed Stewardship Coordinator

In collaboration with RDCK Water Services, Irrigation Districts, community organizations, and farming & agriculture groups

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CURRENT PROJECT PHASE

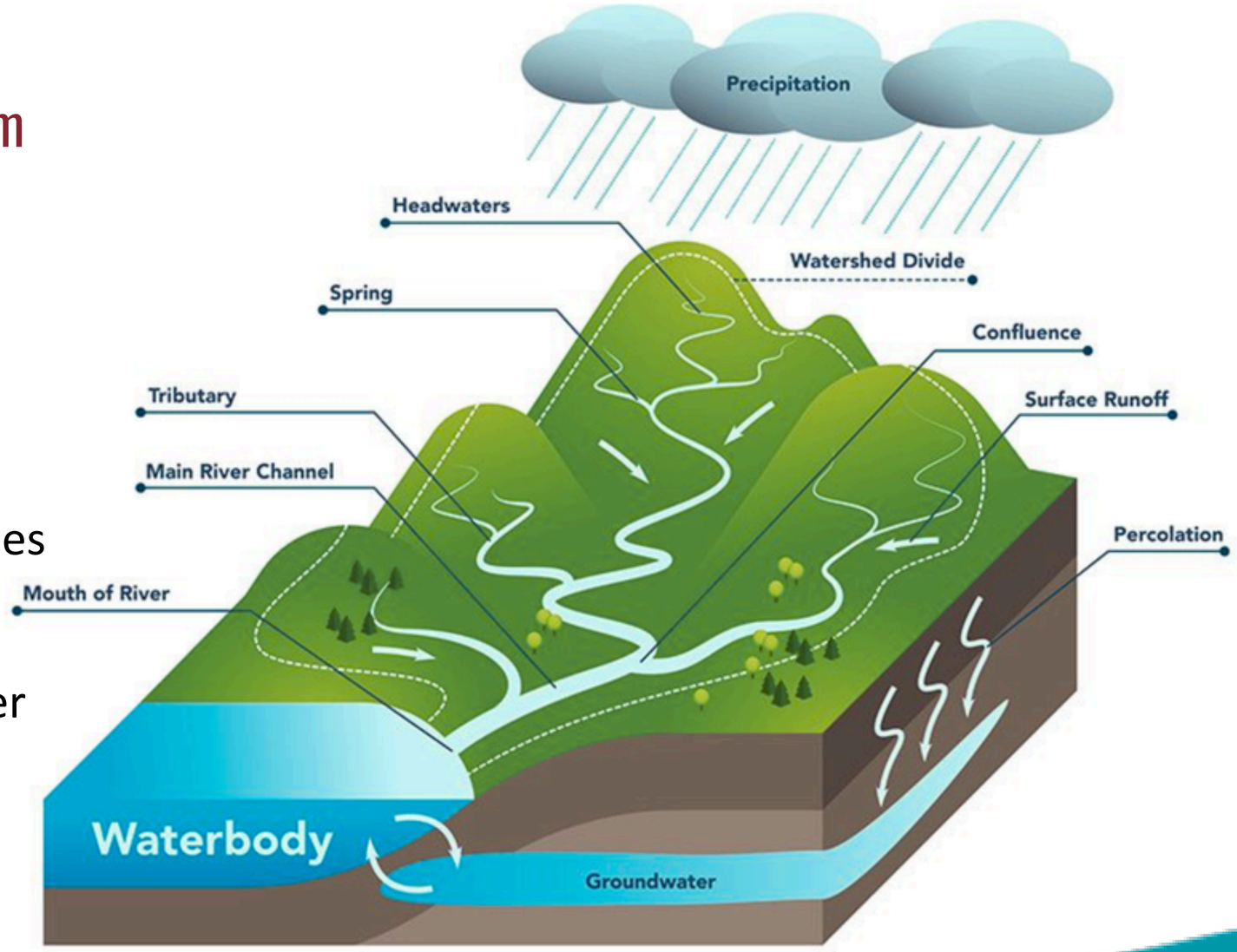
Public Engagement

- Currently in Phase 2, focused on sharing information and learning from local residents and communities
- Next steps: Continue engagement with farmers and food producers as project scoping begins, leading into the multi-year planning phase

WATERSHEDS 101

understanding where our water comes from

- The land area that drains all rainfall and snowmelt into a common point like a river, lake, or aquifer
- It is a dynamic system that connects mountains, forest, farms and communities
- Upstream affects downstream
- Healthy watersheds filter and store water reducing floods, droughts and erosion



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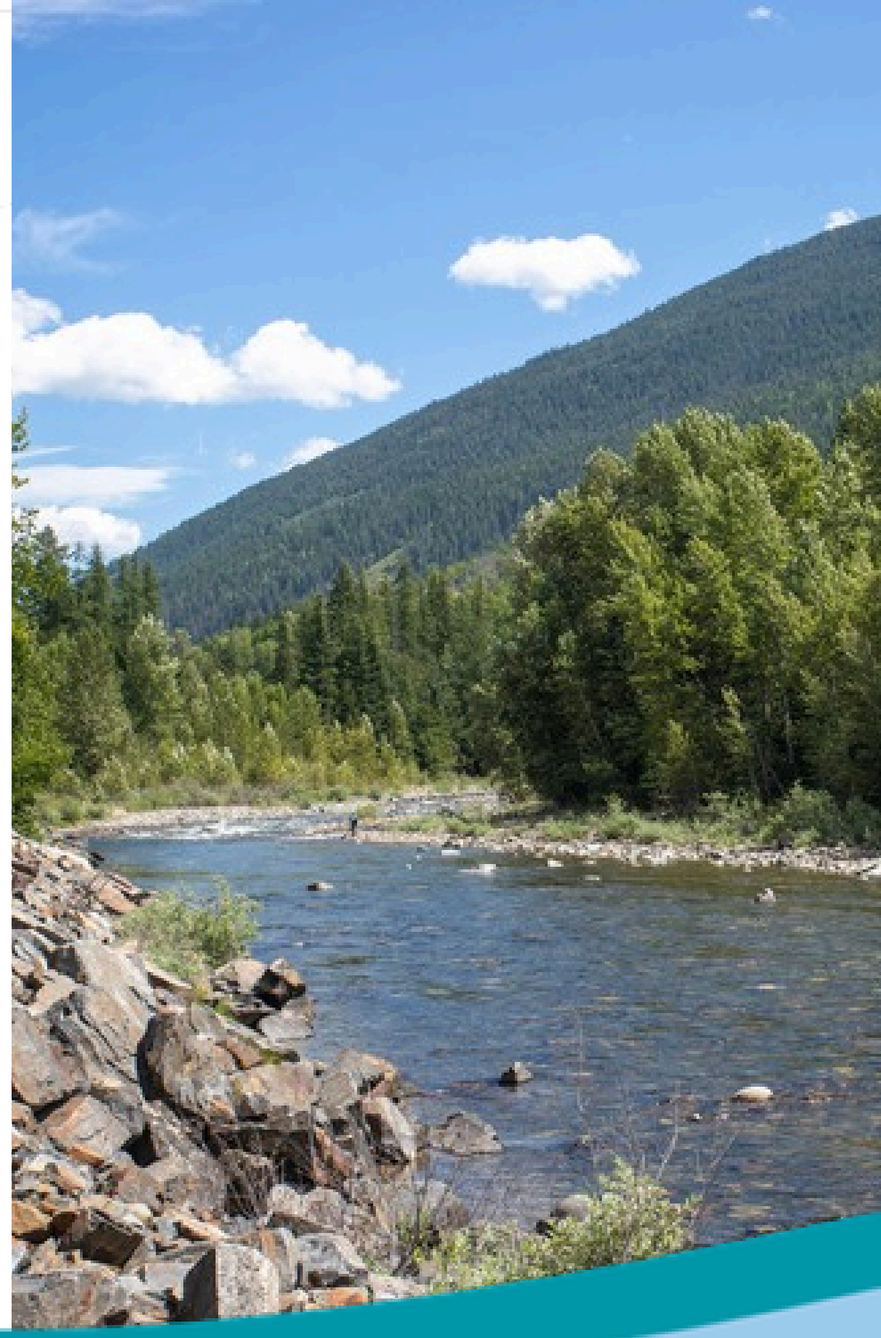
GOAT RIVER WATERSHED

A sensitive system with hydrological and ecological importance

- Provides drinking water, irrigation, industrial support and fish habitat
- Supports critical fish habitat including bull trout and burbot
- Provides water for community supply and agriculture
- Connects to two at-risk aquifers
- Known for exceptional clarity, cold water, and low sediment



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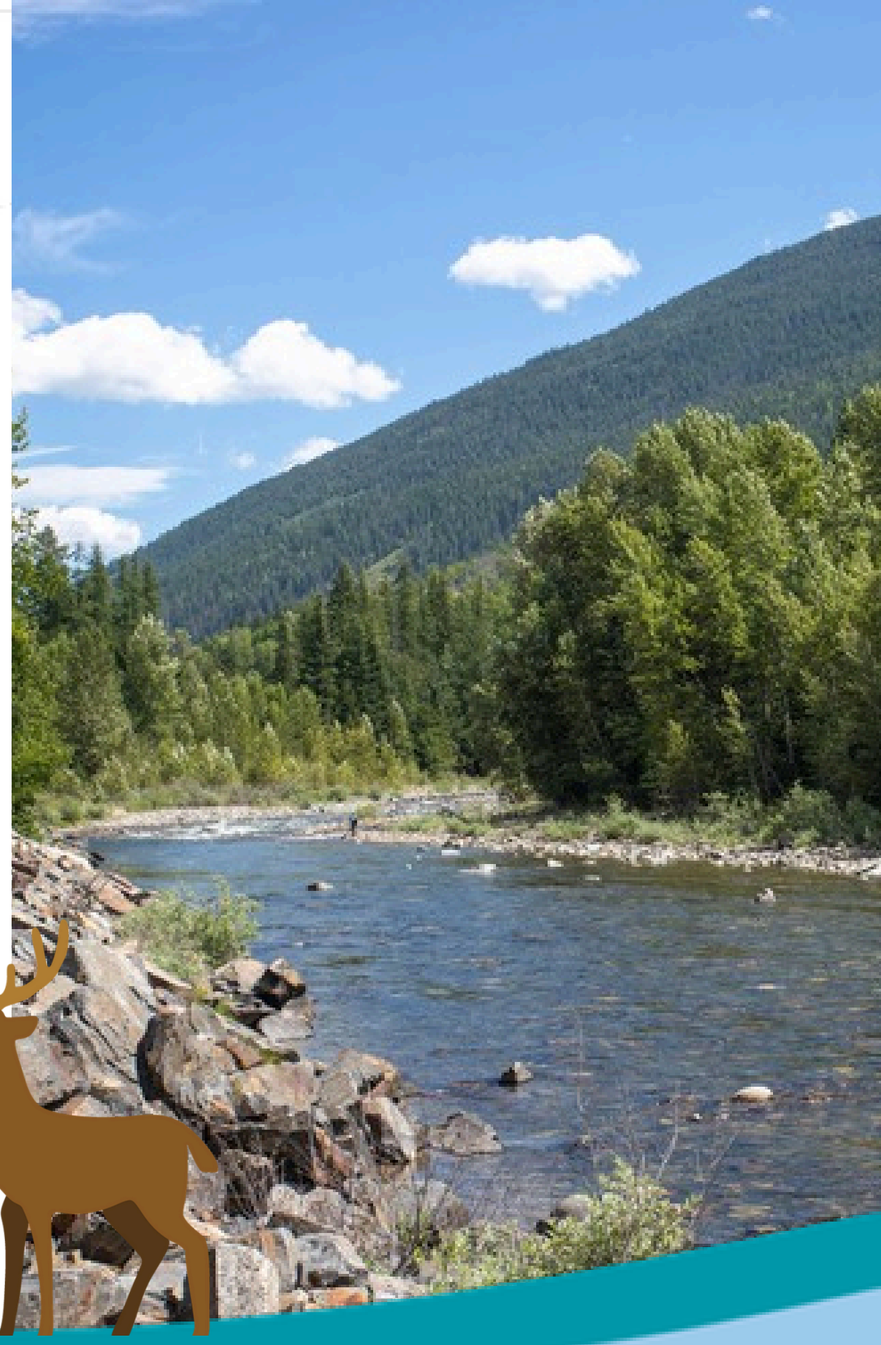
GOAT RIVER WATERSHED

A sensitive system with hydrological and ecological importance

Lens	Why It Matters	Goat River Evidence
Low-flow / drought vulnerability	Indicates risk of ecological or supply failure	Dekker et al. (2024) study shows non-stationary low-flow trends
Groundwater–river connectivity	Ties aquifer use to surface flow	Canyon 0489, East Creston/Lister 0488 are hydrologically connected
Water clarity & cold regime	Supports cold-water species	Measured low turbidity, high clarity
Fish habitat & migration	Supports bull trout, burbot & kokanee	Identified critical habitat & connectivity
Slope instability	Increases sediment & habitat risk	Active landslides and avulsion risk noted
Climate change	Flow timing and variability shifting	Regional drought trend evidence



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WHAT ARE WE LEARNING?

The Goat River's low-flows are changing and no longer follow past patterns

- The Goat River is shifting toward more frequent and severe late-summer droughts
- This is driven by the timing and amount of precipitation not temperature
- We could see no flows in 10 years which will disrupt fish spawning, increase water temperature and impact withdrawals
- The odds of extreme droughts are increasing and the pattern keeps changing over time

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WHY IS THIS IMPORTANT?

Low flows on the Goat River matter

- Low-flows reveal watershed health by how well the land stores and releases water
- Declining late-summer flows signal lost resilience, affecting farms, fish and community supply
- Managing low-flows is key to water security, linking land use, forests, and groundwater
- The yaqan nuʔkiy restoration channel requires 2.7 m^3/s minimum to sustain Kokanee spawning
- Water sustainability planning on the Goat River Watershed is needed to protect economic, ecological and cultural flows for the future

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WHAT CAN WE DO?

Changing patterns require different approaches to what we have done before

- Planning for water security, irrigation, and fish habitat can no longer rely on past records
- We need adaptive systems that anticipate deeper and longer droughts
- We must prepare for shifts in the timing, severity, and duration of dry periods
- Local knowledge and partnership with yaqan nuʔkiy are essential to guide this work
- We need to learn together, monitor together, and govern together to build water resilience in the Goat River Watershed

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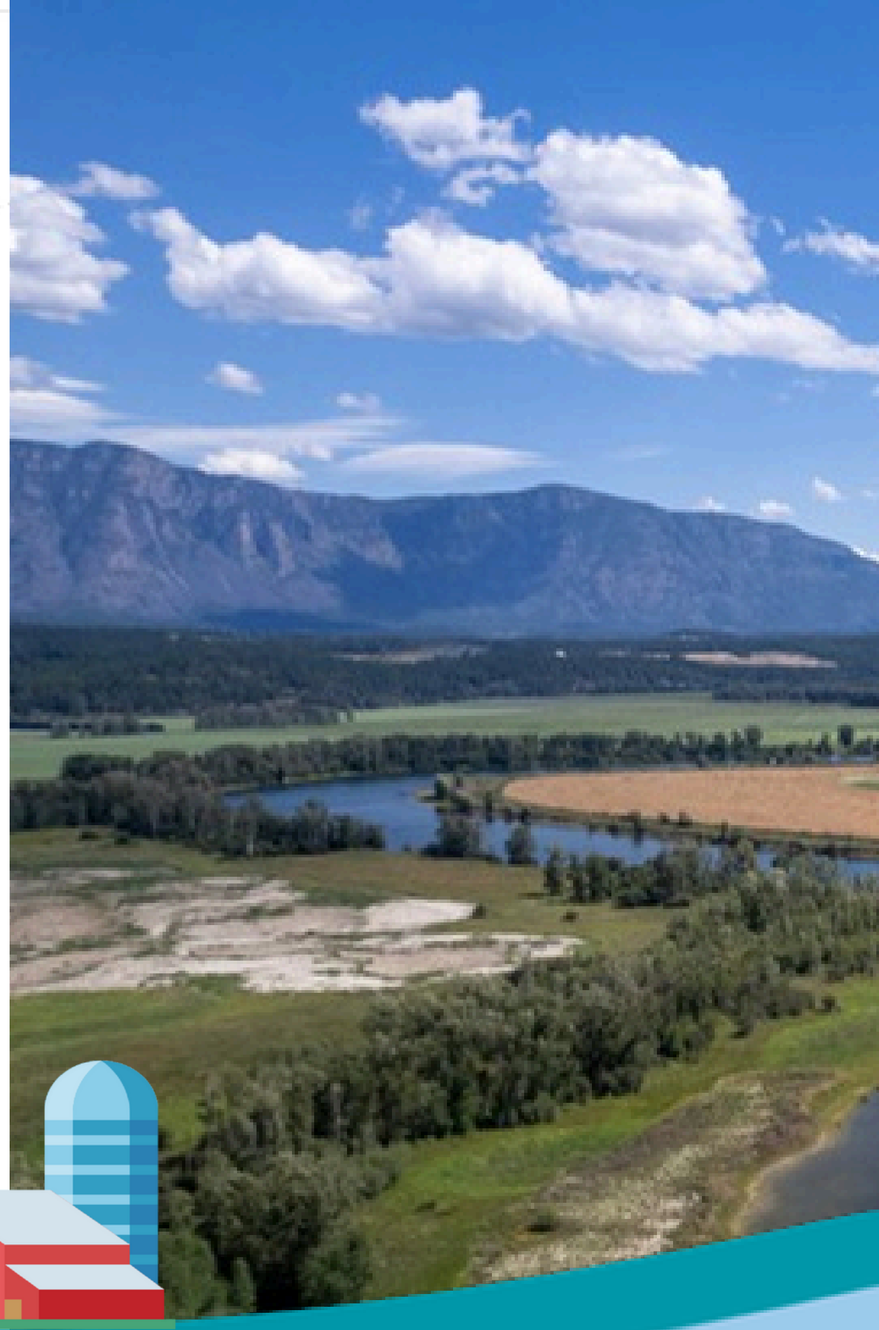
RDCK WATER PROJECTS

Feasibility Study and Erickson Metering

- Major projects advancing water security in Creston Valley that reveal technical, environmental, and economic realities of this water system
- **The feasibility study** explored using the Kootenay River for agriculture needs to reduce pressure on Goat River and Arrow Creek. **While technically feasible, it would require major investment**
- **The metering project** installs meters for agricultural, industrial and commercial users to track water use and monitor leaks



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WSP CONNECTION

Feasibility Study and Erickson Metering

- Move us from **assumptions to evidence-based** water management
- Highlighting supply risks and financial barriers under climate change and drought
- Metering provides data on demand and efficiency
- Supports a **whole-of-watershed approach** to management—balancing community needs and flows for ecosystem health.
- Public engagement allows local knowledge to inform what sustainability means

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WATER SUSTAINABILITY PLANNING

WORKING TOGETHER, HEARING WHATS IMPORTANT

- This is an early step in exploring a Water Sustainability Plan (WSP) for the Goat River Watershed
- Our focus is on collaboration between the community, RDCK and yaqan nuʔkiy
- We’re working to understand risks, values, and shared goals for water in the Creston Valley

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WHAT WE HAVE HEARD SO FAR

Water Values Survey

- 162 responses to date representing all the communities and all sectors
- 85% of respondents are concerned about the state of water in the Goat River Watershed (46 somewhat and 93 very)
- 75 respondents have noticed significant changes in local water sources
- 78% of respondents think more should be done to protect water

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WATER SUSTAINABILITY PLAN

WHAT? WHY? HOW?

- A tool under the Water Sustainability Act
- Current tools (eg. other acts, licences & bylaws) cannot address all conflicts or risks
- A WSP provides a shared, enforceable framework for sustainable water management
- Protects drinking water sources and ecosystems, and addresses challenges like conflicts between users, declining groundwater, or risks to aquatic ecosystems
- Brings all water users into one shared conversation
- Can take 3-5 years to complete - we have not yet started

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HOW TO GET INVOLVED

We are co-defining what sustainability means for the Goat River Watershed

CONNECTOR host a kitchen table conversation

STORYTELLER share your stories, collect stories

CONTRIBUTOR share your voice through surveys and forums

LEARNER go for a walk, share what you see and learn about the watershed

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3-D WEBMAP

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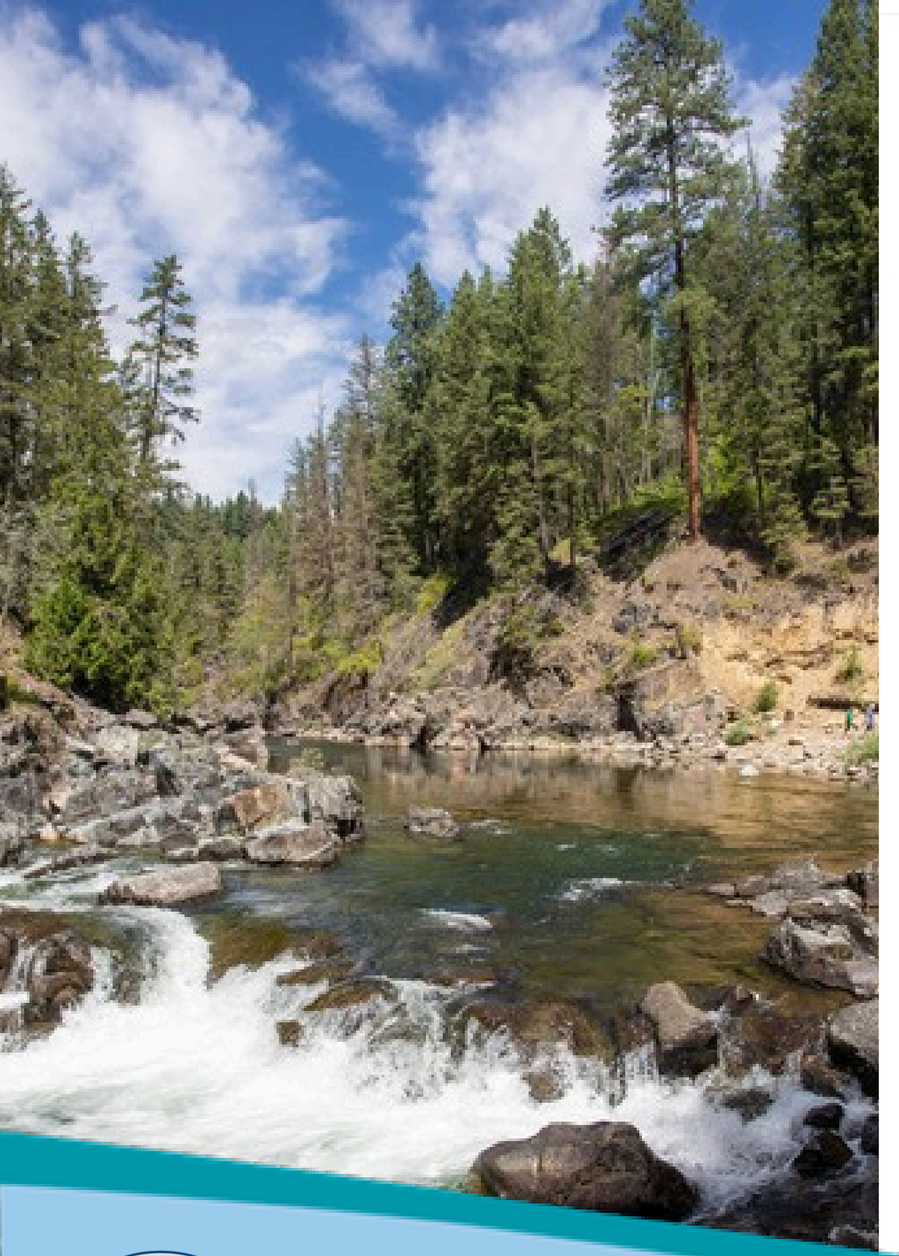

THANK YOU FOR YOUR TIME

What are your experiences of water in the Goat River Watershed?

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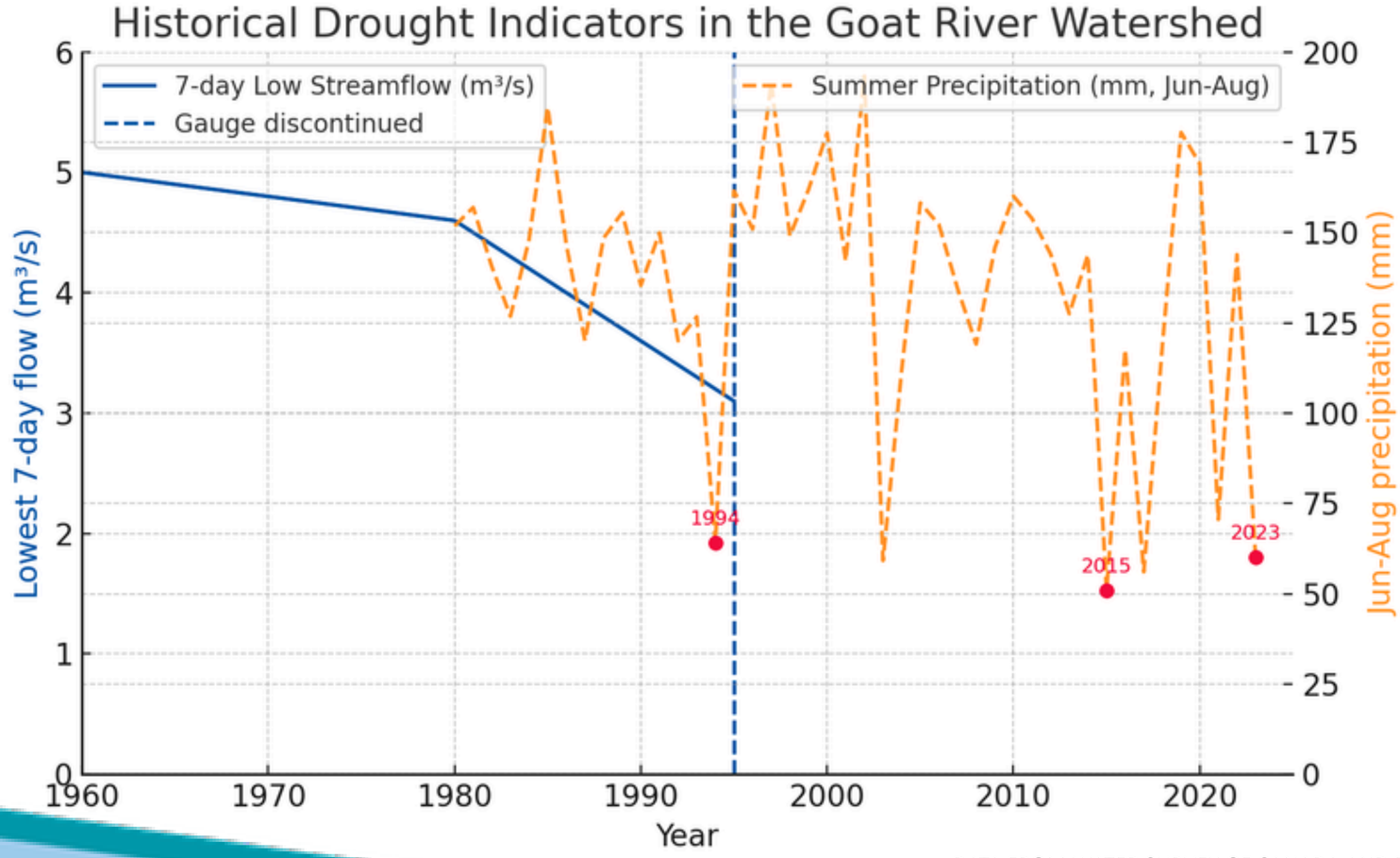

DATA FROM WATER SURVEY OF CANADA AND ENVIRONMENT CANADA

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