



Elk River Watershed
Qukin
ʔamakʔis Collaborative
Monitoring
Program

Interim Monitoring Working Group

Sixth Meeting - Apr 3, 2023 - Meeting Notes

Attendance

1. Stella Swanson, Director, *Elk River Alliance*
2. Andre LeBlanc, Engineering Project Manager, *District of Sparwood*
3. Ashlee Jollymore, Consultant, *MacHydro*
4. Chris Williams, Aquatic Specialist, *Ministry of Forests*
5. Jesse Huisman, Director of Engineering and Public Works, *District of Elkford*
6. Jeremy Krogh, Geomatics and Data Science Specialist - East Kootenays, *BC ENV*
7. Joanna Line, Project Engineer, *City of Fernie*
8. Josh McSkimming, Head Fly Fishing Guide, *Kootenay Fly Shop*
9. Karen Bergman, *Collective for Lower Elk Aquifer Restoration*
10. Kamila Baranowska, Aquatic Biologist, Mining Oversight, *KNC*
11. Nick Lapointe, Senior Conservation Biologist, *Canadian Wildlife Federation*
12. Paige Thurston, Program Manager - Columbia Basin Water Monitoring Framework, *Living Lakes Canada*
13. Samantha Mertens, Ecosystem Biologist, *Ministry of LWRS*
14. Bill Anable, Associate Professor, *University of Waterloo*
15. Natasha Neumann, Research Hydrologist, *Ministry of FOR*
16. Cait Good, Senior Lead Aquatic Sciences, *Teck Coal*
17. Jon Bisset, Owner, *Jon Bisset & Associates*
18. Nicolas Francoeur-Leblond, Senior Engineer Water Quality, *Teck Coal*
19. Steward Rood, Professor Biological Sciences, *University of Lethbridge*
20. Anne-Caroline Kroeger, Project Manager, *Elk River Alliance*
21. Kaileigh McCallum, Ecologist, *Elk River Alliance*
22. Evgeni Matveev, Education & Outreach Coordinator, *Elk River Alliance*

Meeting outcomes

Data assessment work plan: Objectives	Consensus reached to make the best use of available data to address early years monitoring questions, including the testing of formal hypotheses using statistical analyses: <ul style="list-style-type: none">- Identify strengths, weaknesses and limitations in data
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	<p>accessibility.</p> <ul style="list-style-type: none"> - Identify strengths, weaknesses and limitations in data quality, both in precision and accuracy.
<p>Data assessment work plan: 4 steps</p>	<p>Consensus reached to follow these four work steps to divide the workload:</p> <ul style="list-style-type: none"> - Step 1: Data overview: access, query, consolidate and visualise data using dashboard - Step 2: Carry out data validation through 1:1 conversation with data owners on the scope of their data collection, data accessibility and data quality - Step 3: Data overview report: report on data availability and trends and make consolidated data accessible - Step 4: Data analyses: decide on hypotheses & statistical methods and then test hypotheses
<p>Step 1: Data overview</p>	<p>Consensus reached for data extraction on stream response indicators to be restricted to “publicly accessible data stored online”. Data on stream response indicators to be extracted from the following online platforms:</p> <ul style="list-style-type: none"> - BC Data Catalogue: “EMS Results” and “Hydrometric data” - ECCC operated “CABIN database” - ECCC operated “Water Office database” - Living Lakes Canada operated “Columbia Basin Water Hub” <p>Include “reference streams outside Elk River watershed.” Reference streams may include:</p> <ul style="list-style-type: none"> - Oldman River - Bull River - Flathead River - West side tributaries to the Upper Columbia River, between Canal Flats and Golden - Purcell mountain tributaries which have different geology and productivity <p>Include “climate stations outside Elk River watershed.” Consensus among participants that adding/installing additional climate stations in the Elk Valley would be useful, and, at the very least, the area that we pull climate data from</p>

	<p>should go outside the Elk River watershed to include other climate stations in B.C., Alberta and the U.S.</p>
<p>Step 2: Conversations with data owners</p>	<p>Involve 1:1 conversations with data owners on:</p> <ul style="list-style-type: none"> - Data collection, ie., what is the scope of surface water monitoring programs, and where are stations, what is their purpose, are stations active or inactive, etc...? - Data sharing i.e., how much of the data is publicly accessible in a usable format? - Data quality i.e., which quality assurance protocols were followed in monitoring programs? with the goal to conserve as much data as possible but “graying” data out that has limitations so that these can be taken into account: eg: <ul style="list-style-type: none"> - Q1: What equipment was used for data collection, what laboratory performed the analyses and which laboratory protocols were used for water chemistry analyses and benthic taxonomy identification? - Q2: Were SOPs, field protocols or manufacturer’s manuals used? Can ERA get a copy of these? - Q3: Was staff regularly trained on these? - Q4: Were staff audited on these? - Q5: Any other criteria that would make data valid/invalid?
<p>Reporting</p>	<p>Include a “data visualisation dashboard” and a “current state of the watershed report” with the Steering Committee to decide whether made public. Program coordinator to schedule the next MWG meeting in-person in September, with a tentative date set for Thursday, Sept 14, 2023, 13:00 - 16:00, to present the progress made on data assessment.</p>