

Nicola Basin Collaborative Research & Technical Committee

Meeting Summary as of April 6, 2021

Meeting Date: 9:00AM to 12:00PM, March 16, 2021 | **Location:** online

Attendance (for at least a portion of the meeting)

Leona Antoine, Scw'exmx Tribal Council (STC)
Richard Bailey, fisheries consultant
Trevor Bohay, MFLNRORD*
Douglas Braun, Fisheries and Oceans Canada
Jenny Ferome, Environment and Climate Change Canada
Braydon Foster, Fisheries and Oceans Canada
Jeff Guerin, Fisheries and Oceans Canada
Emma Hodgson, Fisheries and Oceans Canada
Josie Iacarella, Fisheries and Oceans Canada
Laurie Lyons, MFLNRORD*
Rich McCleary, Fisheries and Oceans Canada
Colin McGregor, Fisheries and Oceans Canada
Crystal McMaster, Scw'exmx Tribal Council (STC)
Jon Moore, Simon Fraser University
Paul Mozin, Scw'exmx Tribal Council (STC)
Sean Naman, Simon Fraser University
Isobel Pearsall, fisheries consultant | Pacific Salmon Foundation
Dave Pehl, Fisheries and Oceans Canada
Tom Pypker, Thompson Rivers University
David Reid, University of British Columbia
Ian Rogalski, Environment and Climate Change Canada
Teresa Ryan, University of British Columbia
Nigel Sainsbury, Simon Fraser University
Cindy Samaha, Fisheries and Oceans Canada
Mike Simpson, Fraser Basin Council (facilitator, recorder)
Sheena Spencer, MFLNRORD*
Christian St Pierre, MFLNRORD*
Tracy Thomas, MFLNRORD*
Luc Turcotte, Fisheries and Oceans Canada
Sarah Whitehouse, Teck Highland Valley Copper
Tom Willms, University of Northern British Columbia | Nicola Valley Institute of Technology
Tracy Wimbush, Scw'exmx Tribal Council (STC)
**Ministry of Forests, Lands, Natural Resource Operations and Rural Development*

Welcome & Introductions – Mike Simpson, Fraser Basin Council

Mike welcomed everyone, Indigenous territory was acknowledged where people were, and Tracy Wimbush did an opening prayer. Introductions were made. The agenda was accepted as presented.

Meeting Summary

The meeting summary from March 5, 2020 was accepted. It has been posted [online](#).

Risk Assessment Methodology for Salmon (RAMS) Update

Isobel Pearsall gave an update of the RAMS project, what's been completed to date and what comes next. In summary, the workshop material will be distributed in spring, with the goal of getting feedback from participants. This will be collated and prepared for a workshop, to be held in summer at the earliest. Isobel's presentation can be accessed [here](#).

Questions and discussion focused on how invasive species are being considered (they are, as a lifecycle threat), to encourage all orders of government to use the results of this process in broader fisheries management not just restoration project selection, and that engagement with communities to validate the results has been and will continue to be challenging during COVID.

Beaver Dam Analogues and Sediment Wedges Update

Building on a small group brainstorming session held December 17, 2020, Tom Willms provided an update on the status of beaver dam analogues (BDA) and sediment wedges. Golder Associates (James Ogilvie, Drew Kaiser) has been hired on a short-term contract (ends March 31, 2021) to help scope locations and develop generic designs for both projects. A field day is planned for March 24 to visit potential sites identified. Dave Reid has applied some analysis to the geomorphological characteristics for the sediment wedges. The implementation of these projects can be funded with up to \$50 000 of Healthy Watershed Initiative (HWI) funds held by Fraser Basin Council. Dave Pehl confirmed that Coastal Restoration Fund (CRF) money can be used to pay for Golder's services this fiscal year. Tom suggested there is capacity for graduate students to be involved in this work.

Organization and/or Project Updates

Scw'exmx Tribal Council update – Paul Mozin

- Funding secured for water quality monitoring on 13 sites biweekly over 16 weeks this spring to understand a broad variety of parameters during freshet
- Large woody debris restoration projects to increase holding habitat for early chinook in the Upper Coldwater are planned
- Surveying for invasive yellow perch in Upper Nicola plateau and Nicola Lake
- Preparing crews for stock assessment work this summer
- Acquiring a flow tracker and will work with the province on monitoring flows
- Coldwater water storage initiative, an experiment done last year did not successfully store water downstream; it likely went to the aquifer/groundwater recharge

Environment and Climate Change Canada – Ian Roglaski

- Ian noted that ECCC is looking for opportunities to support governance initiatives

Nicola Watershed Governance Project (NWGP) – Leona Antoine

- Leona provided an overview of the purpose and the accomplishments of the government-to-government initiative between 5 Nicola Bands (Upper Nicola, Nooaitch, Coldwater, Shackan, Lower Nicola) and the province. There are initiatives underway related to sustainable water management, governance, Indigenous laws and more.

Fisheries and Oceans Canada – various

- Dave Pehl is transitioning back to integrated planning, addressing various things such as invasive species, riparian assessments and planting
- Cindy Samaha will take over as local lead contact for Coastal Restoration Fund
- Colin McGregor with the restoration unit will be focussing on restoration opportunities, the Nicola dam and fish passage

MFLNRORD – various

- Laurie Lyons reported that the work around **groundwater** was challenged last year due to COVID and weather conditions. A planned 5-day snapshot of surface/groundwater flows and interactions on the Coldwater River during low flows last fall was missed, the goal will be to repeat again this summer/early fall. Much focus this past year was put on City of Merritt wells, elevation levels, identifying losing/gaining reaches (**recent technical memos** are posted [here](#) and [here](#)). In response to a question and concern about the over-allocation of water in the Nicola, it was suggested that this groundwater information will contribute to making better decisions in the future; Trevor noted that the extensions and slow uptake of groundwater licensing delays knowing how much is currently being used.
- Christian St Pierre noted that they are installing **flow monitoring** at Guichon (mouth), Clapperton, and a real-time station at Chapperon
- Sheena Spencer introduced herself as the new **hydrologist**, and that she is working on quantifying the state of the watershed in Upper Nicola, Spius and Coldwater. She and Tracy Thomas are making efforts to establish a snow weather station in the north part of the Nicola watershed.

UNBC Update – various

- Luc Turcotte successfully defended his MSc [thesis](#) and is now working for DFO
- Tom Willms is entering his final field season for his PhD work, using tags to monitor fish movements

SFU update – Jon Moore

- Jon noted that Luke Warkentin successfully defended his MSc thesis and has a paper currently being peer reviewed
- His lab has several projects underway:

- Sean Naman leading work on water temperature monitoring, in collaboration with the NWGP and environmental flow needs, with over 50 temperature loggers currently in the watershed to be utilized
- Nigel Sainsbury leading work on a 4 year DFO funded initiative on the science and governance of salmon watersheds and impacts of people and their activities and the development of a watershed futures model

UBC update – Dave Reid

- Dave has been doing sediment mapping in Guichon, and has noticed that some channels are starting to stabilize

Other – various

- Leona Antoine noted that STC has funding that Neil Todd has secured for a **climate change initiative**, and that Lower Nicola Indian Band has hired a **cumulative effects assessment (CEA) coordinator** for a 2-year term
- Richard Bailey noted that consulting biologist Jeff Morgan is leading a Pacific Salmon Foundation project (waiting on funding from BC Salmon Restoration and Innovation Framework) to develop a “**post-wildfire playbook**” addressing climate, salmon and post-wildfire interactions. The intent is to bring together practitioners and topic experts to develop guidelines about how to address erosion, water quality, sediment transport/avulsion and more

Fraser Basin Council update – Mike Simpson (click [here](#) for past reports, summaries, presentations)

- Currently with year 2/3 funds from Coastal Restoration Fund (federal), the following are complete or underway and due to be wrapped up by March 31:
 - Riparian planting on stabilized areas, near Nooaitch, fall 2020
 - RAMs process funded, \$30 000 (\$20 000 carried forward to next fiscal year)
 - Sensitive Habitat Inventory and Mapping (SHIM) for portion of Coldwater and Nicola Rivers, being completed by Ecoscape Ltd.
 - Mamit Lake Dam addition to the Nicola Water Management Tool was initiated but then abandoned as a project, as the new Lower Nicola Indian Band staff person who operates the dam was not supportive of the project
 - In lieu of Mamit Lake Dam, a “dashboard” based on the MFLNRORD dam engineer’s recommendations and needs is being developed to add on other sources of information to make it easier to use
 - Golder Associates contract to do initial planning on BDAs and sediment wedges
- Healthy Watershed Initiative (HWI) funds (provincial) were secured, \$100 000 for restoration activities. As per direction of the small brainstorming group (December 17, 2020), the funds will be applied as follows:
 - Approximately \$50 000 for implementation of BDAs, sediment wedges
 - Approximately \$50 000 for riparian planting

Input on Fraser Basin Council's Restoration Projects

Input was sought on the following funding that FBC has for the fiscal year beginning April 1:

- CRF – up to \$45 000 for monitoring and water flows
 - Richard Bailey suggested forming a small group to identify the highest needs and best opportunities
- HWI – approximately \$50 000 for riparian planting
 - Suggested to use live cuttings (cottonwood, alder, dogwood), no need to sow nursery stock
 - Consider follow up watering needs
 - Locations – Paul suggested downstream of where the fall 2020 work was done near Nooaitch is ideal; safe, easy access, lots of area to be done
 - Could experiment with different techniques, grad student opportunity

Next Steps

The following **opportunities for collaboration or funding** were noted during the meeting:

- Access federal tree planting program to plant riparian areas
- Engage the forest sector (e.g., Stuwix Resources) about upland restoration, hydrologic recovery and engagement with this committee
- Various planning projects should be integrated – NWGP watershed plan, Dave Pehl at DFO and integrated planning, RAMS outcomes – and link with Wild Salmon Policy and its implementation plan; assess synergies with www.bctomorrow.ca tool
- There is significant interest in addressing the water budget question – how much water is there, what's already allocated, to address ongoing water licence withdrawal applications
- Several research projects have potential overlaps or synergies:
 - Neil Todd's climate change initiative
 - SFU's science and governance of salmon watersheds
 - Richard Bailey's post-wildfire playbook
 - NWGP work on Indigenous laws, etc.
- There are lots of graduate student opportunities, and capacity for supervision (Rich McCleary explicitly noted he has capacity)
- Utilize Aboriginal Skills, Employment and Training Strategy (ASETS) to hire local people
- Seek to patch together these various short-term work opportunities to create longer term employment opportunities (monitoring, planting, etc.)
- Local groups take over SFU water temperature loggers
- FBC should message what the NBC RTC is all about to the outside world, identify students who have graduated on the website

Meeting Adjourned at 12:00 PM