

Nicola Basin Collaborative Research & Technical Committee

Meeting Summary as at March 18, 2020

Meeting Date: 9:00AM to 3:30PM, March 5, 2020 | **Location:** NVIT, Merritt, BC

Attendance (for at least a portion of the meeting)

Leona Antoine, Scw'exmx Tribal Council (STC)
Richard Bailey, Fisheries and Oceans Canada
Trevor Bohay, MFLNRORD*
Douglas Braun, Fisheries and Oceans Canada
Patrick Farmer, MFLNRORD*
Joel Harding, Fisheries and Oceans Canada
Emma Hodgson, Fisheries and Oceans Canada
Kim Hyatt, Fisheries and Oceans Canada (by phone/Go To Meeting)
Laurie Lyons, MFLNRORD*
Crystal McMaster, Scw'exmx Tribal Council (STC)
Jon Moore, Simon Fraser University
Paul Mozin, Scw'exmx Tribal Council (STC)
Michael Owen, Associated Engineering Ltd. (by phone/Go To Meeting)
Isobel Pearsall, fisheries consultant
Dave Pehl, Fisheries and Oceans Canada
Hyrum Peterson, Lower Nicola Indian Band
David Reid, University of British Columbia
Sarah Simon, MFLNRORD*
Mike Simpson, Fraser Basin Council (facilitator, recorder)
Christian St Pierre, MFLNRORD*
Tracy Thomas, MFLNRORD*
Dave Thomson, MFLNRORD* (by phone/Go To Meeting)
Luc Turcotte, University of Northern British Columbia
Luke Warketin, Simon Fraser University
Tom Willms, University of Northern British Columbia | Nicola Valley Institute of Technology
**Ministry of Forests, Lands, Natural Resource Operations and Rural Development*

Welcome & Introductions – Mike Simpson, Fraser Basin Council

Mike welcomed everyone, Nlaka'pamux and Syilx territory was acknowledged, and Leona did an opening prayer. Introductions were made. The agenda was accepted as presented.

Purpose of the meeting – to learn about and initiate a RAMS workshop and to provide updates about projects and research underway in the Nicola watershed.

Risk Assessment Methodology for Salmon (RAMS)

Isobel Pearsall with the support of Richard Bailey and Kim Hyatt introduced the RAMS process, where it has been used and what the outcomes are. Kim noted that in places where it's been

used, it brings together the “two solitudes” of stock assessment and habitat folks. Those present saw this as an opportunity to truly collaborate by bringing together First Nations knowledge, local knowledge, provincial and federal government experts and have a comprehensive look at what are the risks for fisheries and where. Isobel’s presentation can be accessed [here](#).

The **key goals of a Nicola watershed RAMS workshop** will be to identify and prioritize factors that are limiting production of Interior Fraser coho, chinook, and steelhead, both now and in the future within the context of climate change. Workshop attendees will rank the risk from both man-made and natural stressors acting on the freshwater components of the life history, identify key data gaps, and determine appropriate action items and next steps. This process should result in effective prioritization and identification of feasible and appropriate next steps for NBC RTC and other local groups.

The following was **agreed** upon (note that Isobel also took detailed notes):

- Yes, let’s do this – there is value seen in the process, deliverables and outcomes
- Start with 3 “data-rich” species – Interior Fraser coho, chinook, and steelhead
- Add kokanee and burbot in the future, they are important but less data exists
- Focus on Nicola watershed only for now – in future, could expand to Thompson, Fraser Rivers and the Salish Sea
- It was agreed to invite representatives of the Nicola G2G Forum and the Nicola Watershed Community Round Table to participate – at risk of being a large crowd and risk of not seeking consensus, it was seen as more important to be inclusive

The following were noted as **next steps** and information needed:

1. First step is for the NBC RTC to develop and agree on their vision for the watershed.
2. Send Isobel any documents, maps, data sets or links to resources that would be helpful to be collated well in advance of the workshop. This would include the following:
 - a. Stock specific information for Interior Fraser coho, chinook, and steelhead, e.g., run timing, escapement surveys, smolt surveys, exploitation rate
 - b. Information about freshwater habitat & ecosystems, e.g. water quality (temperatures, chemistry, suspended sediments, nutrients, toxins etc.), hydrology, physical habitat (e.g. location of spawning grounds, critical habitats, spawning habitat, riparian condition, LWD, connectivity etc.), and biological communities (e.g. information on competitors and predators, other salmonids, pathogens and parasites, invasive species, etc.).
 - c. Information about natural and man-made threats and pressures (e.g. groundwater extraction, forestry, development, land use, climate impacts, changes to hydrology, spills, enhancement impacts, harvest, pollution etc.)
 - d. Information on past restoration activities in the watershed.
3. Isobel has experience of having supported RAMS workshops before, but is seeking support from someone in the local area that can help. GIS support would also be helpful.
4. The aim will be to hold the workshop in Merritt in the Fall of 2020.

Fisheries and Oceans Canada provided support for Isobel to participate in these early stages. The following are **options for resourcing** a RAMS process:

- All orders of government should consider how they could fund this – federal, provincial and First Nation
- DFO could provide in-kind support through Wilf, Kim
- Consider redirecting funds (with approval) from existing projects – such as FBC’s Coastal Restoration Fund contribution agreement, or others
- Approach Pacific Salmon Foundation (PSF) staff (Charlotte, Jason, Katrina, Eric) about whether the Salmon Explorer tool could be expanded to cover the Nicola
- MFLNRORD could possibly provide GIS support during the fall RAMS workshop

Project Updates

Homing, Redd Site Characteristics and the Effect of Dissolved Oxygen on Larval Coho Salmon – Luc Turcotte, UNBC

- Luc presented his findings, which he will be defending this spring
- His presentation can be accessed [here](#)

Water Temperature and Chinook Productivity – Luke Warkentin, SFU

- Luke presented the current update on his research
- His presentation can be accessed [here](#)

Sediment supply conditions and channel response to the 2017 and 2018 flood events in Guichon Creek - David Reid, UBC

- Dave presented on what he’s found for sediment movement in Guichon Creek
- His presentation can be accessed [here](#)

Groundwater – Laurie Lyons

- Laurie reported that Golder is creating a groundwater flow model that is attempting to model the interaction of 23 aquifers. Hoping to get the model built this year. There are lots of data gaps, and with limited funding, the work is slow to progress.
- The ultimate goal is to understand groundwater and surface water interactions, and to ensure there is sufficient water to maintain ecological services in that reach of the river

Pit Tagging – Tom Willms

- Tom noted that he will be undertaking pit tagging of juvenile salmon from the Coldwater/Nicola confluence downstream to the Spius Creek confluence

Nicola Government to Government Forum Update – Leona Antoine

- Leona noted that there has been lots of relationship building over the past two years of the G2G forum, and that this year they will be operational in the Upper Nicola with shared decision making on flood, drought as well as co-monitoring

SFU update – Jon Moore

- Jon advised that they have submitted a funding proposal regarding cumulative effects assessment, and looking at policy levers and governance options for salmon

Previous Meeting Summaries

The meeting summaries from September 26 and October 31, 2019 were approved.

Input on Fraser Basin Council's Restoration Projects

FBC has a contribution agreement with DFO for Coastal Restoration Fund projects for 3 years commencing fiscal year 2019-20. Other than restoration projects, there is funding for:

- Mamit Lake dam and expanding the Nicola Water Management Tool
- Update the Nicola River SHIM, and expand it up the Coldwater River
- Groundwater-surface water interaction study for the Coldwater River
- Assessment of sediment sources and channel instability at Juliet Creek and Nicola River downstream of Nicola Lake

The October 31, 2019 meeting of the RTC explored the concept of restoration, drafted a vision, goals and objectives for habitat restoration, and proposed three options for year 2 of the FBC project (\$109 000 available):

- Nicola River d/s of Nicola Lake dam to confluence with the Coldwater
- Support STC's project on Guichon Creek
- Support STC's project on Coldwater River

It was suggested that the Nicola River between the dam and the Coldwater confluence is not the most urgent site needed for restoration. It was reiterated by some that we shouldn't be applying "bandaids" when we haven't addressed upstream issues, and that the outcome of the RAMS process would better inform where restoration activities should take place. Timeliness of getting a Water Sustainability Act section 11 permit for any restoration activities within a stream will also be a challenge, although it was noted by MFLNRORD staff present that it could be expedited.

It was suggested (as noted above) to repurpose a portion of the CRF funds to support the RAMS process (e.g., horse before cart) but that the following be pursued if on the ground restoration activities do proceed:

- Riparian planting – doesn't need s.11 permit; candidate sites are 400-500m long section of Nicola mainstem stabilized at Nooaitch; fee simple land at Lower Nicola Indian Band
- Beaver dam analogues – candidate sites that Tom and NVIT students are considering are Howarth Creek (tributary of Voght Creek); connect with Jeremy Cooke for other ideas
- Experimental tarps/ginseng cloth to shade streams – not necessarily on Nicola mainstem (too big), but on tributaries; connect with Dave Polster, Dave West

Actions:

Topic	Who	Timing
RAMS workshop <ul style="list-style-type: none">▪ Send background information, topic experts to Isobel pearsalli@shaw.ca▪ Express interest in helping Isobel and learn how to do RAMS, contact Isobel▪ Seek to host 2-day workshop in early fall – Mike will seek date	Everyone Everyone Mike	Ongoing Ongoing Late summer
Follow up on collaboration opportunities – reach out to other RTC members about ideas	All participants	Ongoing
Follow up with CRF funded restoration and monitoring plan development; align with G2G Forum and/or Core Committee; Mike will follow up with individuals for specific project details	Mike, and entire RTC or a “coalition of the willing”	Develop 3-5 year restoration and monitoring plan by March 2020
Utilize Tom’s NVIT students for riparian restoration projects	Everyone	Ongoing
Confirm what could be done with FBC’s Coastal Restoration Fund project	Dave Pehl, Mike	ASAP
Share contact info of RTC	Mike	With meeting summary
Contact each other in between meetings	All participants	Ongoing

Meeting Adjourned at 3:30 PM