

NECHAKO
WATERSHED
ROUNDTABLE

2025 SPRING TECHNICAL MEETING SUMMARY

June 2-3 2025





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The Nechako Watershed Roundtable (NWR) was established in 2015 to address the need for collaboration and to develop a strategy to further advance the vision of a healthy Nechako. Building on past collaboration in the region, the NWR is a group of representatives from a diversity of organizations, local governments, First Nations, private sector and federal and provincial agencies with a shared concern and commitment to protect and improve the health of the Nechako watershed.





The 2025 Spring Technical Meeting of the Nechako Watershed Roundtable (NWR), entitled **"Action in the Nechako: Progress and Potential Across the Watershed"** took place on June 2nd and 3rd in partnership with Nak'azdli Whut'en. The meeting was held in person in Fort St. James.

Rosemarie Sam, Nak'azdli Whu'ten and Kim Menounos, NWR Core Committee Co-chair provided welcoming remarks at the Nak'azdli Hatchery on June 2nd. Participants were separated into two groups and each went on a tour of both the Nak'azdli Hatchery and Stuart Lake (via boat). We would like to extend our gratitude to our hatchery guides and boat guides for their time and the knowledge shared.

June 2nd evening participants and community members came together to share a meal at the Stuart Lake Golf Club and attend a presentation on 'Climate Change in the Nechako Watershed' by Dr. Stephen Dery.

June 3rd participants met at the Fort St. James Community Hall for a full day of expert speakers. The day was opened with remarks from Gina Layte Liston, NWR Core Committee Co-chair and Tina Erickson, Nak'azdli Whu'ten followed by a the sharing of a river song from the Dak'elh Drummers. A summary of the presentations included in this document. Thank you to the following individuals for their contributions to this years annual meeting: Wayne Salewski, Dr. Stephen Dery, Lucas Macedo Moura, Maiyaz Julian, Darren Carpenter, Chelton vanGeloven, Georgia Peck, Simon Gauthier-Fauteux, Jayson Kurtz, Tina Erickson, Rosemarie Sam, Sydney Tibbets, Seraphine Munroe, Tasha Peterson, Scott Brown and the Dak'elh Dummers.

The purpose of this document is to summarize the key learnings from the annual meeting. Additional information and presentation slides are available to members at nechakowatershed.ca/news-events/previous-meetings-meeting-summaries.





NWR SPRING TECHNICAL MEETING **“ACTION IN THE NECHAKO: PROGRESS AND POTENTIAL ACROSS THE WATERSHED”**

DATE: June 2nd & 3rd, 2025

TIME: 11:00am June 2nd - 2:40pm June 3rd

LOCATION: June 2nd at the Nak'azdli Hatchery (1100 Lakeshore Drive) / June 3rd at the Fort St. James Community Hall (190 Stuart Drive E)

NWR CO-CHAIRS: Gina Layte Liston & Kim Menounos

EVENT PARTNER: Nak'azdli Whut'en

Workshop Goals & Outcomes

- Immerse yourself in the past while travelling by boat to pictographs
- Discover a deeper understanding of the Stuart-Trembleur-Talka lakes region of the Nechako
- Gain insight into how Indigenous storytelling can bring value to watershed work
- Learn about current restoration and fisheries activities and how you can get involved
- Connect with like-minded individuals and find out how we may be able to support each other

Workshop Partners & NWR Sponsors



Canada
Water Agency

Agence de l'eau
du Canada



Fraser Basin Council



Ministry of
Forests, Lands, Natural
Resource Operations
and Rural Development





NWR SPRING TECHNICAL MEETING

“ACTION IN THE NECHAKO: PROGRESS AND POTENTIAL ACROSS THE WATERSHED”

Agenda: June 2nd

Location: Nak’azdli Hatchery (1100 Lakeshore Drive)

TIME	EVENT	DETAILS
11:00am	Meet at Nak’azdli Hatchery	Location: 1100 Lakeshore Drive
11:15am	Welcome & Blessing	Kim Menounos, NWR Co-chair, Seraphine Munroe, Director of Yinka Huwunline & Tina Erickson, Nak’azdli Whut’en
11:30am	TOURS Group 1: Hatchery Tour & BBQ Lunch Group 2: Boat Tour	Please ensure you arrive prior to tour start. Waivers and safety discussion are mandatory.
1:30pm	TOURS CONT. Group 1: Boat Tour Group 2: BBQ Lunch & Hatchery Tour	
3:30pm	Break	
4:30pm - 7:00pm	Networking Event, Dinner & Presentation (located at the Stuart Lake Golf Club, 477 Stuart Drive W)	4:30pm: Doors Open 4:50pm: Welcome & Blessing, Tina Erickson, Nak’azdli Whut’en 5:00pm: Buffet Dinner 6:00pm: ‘Climate Change in the Nechako and Stuart Watersheds’ presentation by Dr. Stephen Dery, UNBC/IWRG 6:50pm: NWR Co-chairs Day 1 Recap and Day 2 Overview



NWR SPRING TECHNICAL MEETING

“ACTION IN THE NECHAKO: PROGRESS AND POTENTIAL ACROSS THE WATERSHED”

Agenda: June 3rd

Location: Fort St. James Community Hall (190 Stuart Dr. E)

TIME	TITLE	PRESENTER
8:15am	Doors Open	Pick up your name tag and help yourself to a beverage and light snack
8:30am	Welcome, Introductions and Land Acknowledgement	Gina Layte Liston, NWR Co-chair
8:40am	Nak'azdli Whut'en Welcome & Blessing	Seraphine Munroe, Director of Yinka Huwunline & Dak'elh Drummers
9:05am	Nechako Watershed Roundtable Update: 1. Progress & Potential 2. Climate Change Adaptation & Resilience Working Group 3. Lakes Monitoring Working Group 4. Youth Engagement Working Group 5. Nechako Portal Working Group	NWR Core Committee Members: Kim Menounos, Wayne Salewski & Jonathan Doyon
9:35am	Amplifying Integrated Watershed Research in the Nechako River Basin: A progress update from UNBC's Integrated Watershed Resource Group	Stephen Dery & Lucas Macedo Moura, UNBC/IWRG
9:50am	Dakelh Legal Orders: A Storywork Approach to Revitalization	Maiyaz Julian, University of Victoria/ Yinka Huwunline
10:40am	Break	
10:55am	Takla Stewardship in the Sacred Headwaters of the Fraser-Skeena-Artic Watersheds	Keith West, Takla Nation
11:15am	SD91/FSJSS: Selective Fishing & Science Platform (SFSP)	Darren Carpenter, SD91
11:30am	Paleolimnology and Salmon Recovery in the Nechako Watershed	Chelton vanGeloven, Lheidli T'enneh



NWR SPRING TECHNICAL MEETING

“ACTION IN THE NECHAKO: PROGRESS AND POTENTIAL ACROSS THE WATERSHED”

Agenda: June 3rd Cont.

TIME	TITLE	PRESENTER
11:55am	Networking Lunch & Short Film “Water Worlds” featuring Nak’azdli by APTN Len Morisstee	
1:10pm	Foreshore Assessment on Francois Lake	Georgia Peck, Living Lakes Canada
1:30pm	Beaver Dam Analogs: Climate Change Adaptation	Wayne Salewski, Nechako Environment & Water Stewardship Society
1:50pm	Geomorphology of the Nechako River	Simon Gauthier-Fauteux, Northwest Hydraulic Consultants
2:10pm	Nechako Water Engagement Initiative Update	Jayson Kurtz, Ecofish Research Ltd.
2:30pm	Event Recap & Closing Remarks	Gina Layte Liston, NWR Co-chair
2:40pm	Adjourn	



**Presented by: Kim Menounos, NWR Co-chair &
Wayne Salewski, NWR Core Committee Meber**

The NWR continues to make progress toward implementation of its strategic priorities as laid out in the 2022 -2026 Strategic Plan, to convene partners, support efforts to restore watershed health, advocate for the watershed, ensure a resilient organization and advance reconciliation.

- 2025 marks the 10-year anniversary of the forming of the Roundtable; Planning for a new strategic plan to begin in 2025
- The NWR welcomes new Core Committee members Jonathan Doyon (Youth Representative) and Martin Elphee (Local Government Representative)
- Thanks to outgoing member Brian Frenkel, District of Vanderhoof, for his dedication to the Roundtable and participation on the Core Committee from 2015- 2024
- Thanks to the NWR's sponsors: Canada Water Agency, Ministry of Forests, Cheslatta Carrier Nation, UNBC, Regional District of Fraser-Fort George and District of Vanderhoof
- NWR resolutions on 'Local Watershed Governance Organizations' and 'Biodiverse Climate Resilient Ecosystems' were supported by RDFFG and RDBN and brought forward at the North Central Local Government Association AGM
- NWR's Climate Change Adaptation and Resilience Working Group held their first workshop entitled, "The Water that Connects Us" on November 29th, 2024 in Prince George. Next steps and second workshop to be announced in the coming months
- NWR's Lakes Monitoring Working Group continues to work on implementation of the Large Lakes Monitoring Strategy. A new partnership with Nakaz'dli Whut'en for equipment purchase and strategy development is in place
- Have recently initiated a paleolimnology project with the Upper Fraser Fisheries Conservation Alliance, Nechako First Nations, Department of Fisheries and Oceans, University of Ottawa and Queens University - more details in Chelton's presentation
- NWR's Youth Engagement Working Group has actively been recruiting across the watershed and held a successful "Watershed Connections" event at UNBC in April
- The 'Nechako Watershed Learning Module' was created for students, teachers and community members to encourage integrative thinking and address the complexities of climate change. [View a detailed video on how the learning module is accessed and used here.](#)

**The NWR is looking for First Nation members to join the Core Committee.
For more information, please contact nwrcoordinator@gmail.com.**



Amplifying Integrated Watershed Research in the Nechako River Basin: A progress update from UNBC's Integrated Watershed Resource Group

Presented by: Dr. Stephen Déry & Lucas Macedo Moura, IWRG/ UNBC

UNBC houses the IWRG, a collaborative research group with the goal to strengthen community connections and preparedness for integrative responses to climate variability affecting the Nechako Watershed. The project is now in phase three, with a completion date of August 2025. Phase three focuses on four themes:

- Theme 1: Water Temperature Monitoring Network: Develop a network of experimental watersheds to improve monitoring and understanding of the impacts of the climate crisis and land cover changes on terrestrial water fluxes
 - Open-access paper in press at Data in Brief describing the updated dataset:
<https://zenodo.org/records/15053907>
- Theme 2: Effects of Landscape Disturbances on Sediment and Contaminant Fluxes: Determine how landscape disturbances, such as land-falling atmospheric rivers and severe wildfires, modify erosion of the landscape and the delivery of fine sediment and associated chemicals to river channels
- Theme 3: Fish Responses to Environmental Changes · Investigate short- and long-term responses of fish to environmental changes including climate change in the Nechako Watershed
- Theme 4: Amplifying Co-benefits for Climate, Catchments (Watersheds) and Communities: Refine and strengthen the Nechako Watershed Portal to support the diverse data archiving, profiling and sharing needs of established and emerging partners/audiences: <https://nechakowatershed-portal.ca/>
- 2025 summer field season includes site visits across the Nechako Watershed
- Nechako Watershed Portal Ongoing Projects and routine updates/guides: "Welcome to the Nechako" Project, "Climate and Health" Project , Large Lakes Monitoring" Project, Saturation Search" of publications, as well as a profile of Cheslatta Carrier Nation Archives



More information about the IWRG can be found at: <https://www2.unbc.ca/integrated-watershed-research-group/research/nechako-river-basin>.





Dakelh Legal Orders: A Storywork Approach to Revitalization

Presenter: Maiyaz Julian, University of Victoria/ Yinka Huwunline

Maiyaz Julian is a Lusilyoo Clan member from Nak'azdli Whut'en currently completing a degree in First Nations and Indigenous Studies with a minor in Political Science at the University of British Columbia. Maiyaz has 3+ years of experience working with various Federal departments, with her most recent position being with Crown-Indigenous Relations and Northern Affairs Canada. In her last year of post-secondary studies, Maiyaz completed a research practicum with Nak'azdli Yinka Huwunline. This work is focused on revitalizing traditional Dakelh legal orders and is an ongoing community project that Maiyaz is excited to be continuing beyond her practicum.

Maiyaz presented a story work approach on the revitalization of the Dak'elh legal orders using cultural stories told through Na'kazdli Whuten and comparing them to present day legal frameworks. She related how she examines the storylines and provided an example with the Dukan story, legend of the trees, using a legal narrative to analyze portions of the story.

Tina Erickson shared the historic responsibility that Na'kazdli Whuten has with the waters. Many Nak'azdli Whu'ten are part of the the Frog Clan. Frogs are the first to be able to identify changes in the climate. It is important to ensure (we) recognize these changes and do our best to mitigate them.

Na'kazdli Whuten have been the caretakers of the headwaters spanning decades and generations, sharing stories of collaboration and partnerships across the land is needed to ensure the responsibility of protecting the waters is shared and done together.





SD91/FSJSS: Selective Fishing & Science Platform

Presented by: Darren Carpenter, SD91 & Craig Houghton, Principal, Fort St. James Secondary School (FSJSS)

Darren Carpenter, SD91 and Craig Houghton, FSJSS gave an update on the Selective Fishing and Science Platform Project (SFSP).

FSJSS students have built a research boat; they would like researchers to be able to rent the boat with the request that they bring students alongside to learn. The vision for the boat is to show students that there are accessible ways of protecting water sustainability and conservation. They want to have a way to show their youth what kind of work that could be available for students to pursue after high school. They continue to pursue funding to purchase additional equipment. Their presentation focused on partnership possibilities; with the core function of the boat being research-based. They look forward to discussing more, please reach out to dcarpenter@sd9.bc.ca if you would like to discuss further.





Paleolimnology and Salmon Recovery in the Nechako Watershed

Presented by: Chelton vanGeloven, Lheidli T'enneh & NWR Lakes Monitoring Working Group

- After multiple unsuccessful efforts for Large Lakes Monitoring funding, a new partnership has been established between the NWR, Upper Fraser Fisheries Conservation Alliance, Nechako First Nations, Department of Fisheries and Oceans and others allowing work to begin on paleolimnology data collection and build local monitoring capacity within the watershed
- Paleolimnology: Reconstruction of lake, watershed and climactic histories using physical, chemical, and biological information archived in lake sediments
- Year-one sampling (2025) to take place on several lakes, including: Takla, Trembleur, Stuart, Fraser, Bowron, Francois, Finger/Tatuk, Quesnel and Nulki/Tachick
- Project partners are currently working with the University of Ottawa and Queens University to expand the paleo project through an NSERC Alliance Grant application
- NSERC Alliance Goals:
 - Establish the salmon-climate relationship at ecologically-relevant spatial and time scales
 - Development and application of a new paleo-salmon indicator
 - Calibration and application of a new fresh water paleo-thermometer
- Enhanced monitoring knowledge can help to inform Traditional Knowledge, tools (lake fertilization), what is affecting fish, habitat restoration projects and hatchery production
- These types of partnerships are a great example of how we can work together to action common goals in the watershed





Foreshore Assessment on Francois Lake

Presented by: Georgia Peck, Living Lakes Canada (LLC)

- Foreshore Integrated Management Planning (FIMP): Maps shoreline habitats, assesses habitat value and establishes Shoreline Development Guidelines to conserve ecosystems, support climate resiliency and protect species of conservation concern.
- FIMP re-survey completed for Fraser Lake in 2023:
 - 65% of the shoreline was in natural condition, while 35% was disturbed
 - Sixteen recommendations are outlined in the report
 - Twelve Culturally Sensitive Areas identified
 - Five Zones of Sensitivity were identified and recommended with a high level on conservation
- Francois Lake FIMP is in-progress:
 - Field work taking place July 2nd-16th, 2025
 - Drone footage collection taking place soon after
 - Desktop review and report writing fall 2025
 - Draft report review winter 2026
 - Final reports, maps, and drone footage available in spring 2026
 - Available on the FIMP landing page and interactive map resource
 - Community outreach and engagement occurs throughout the project timeline
- Francois Lake FIMP Project Team: Ecoscape and Lotic Environmental, Wet'suwet'en First Nation, Ts'il Kaz Koh First Nation, Stellat'en First Nation, Cheslatta First Nation, Airrays Drone Services and LLC



Learn more about the Living Lakes Canada at livinglakescanada.ca





Beaver Dam Analog (BDA): Climate Change Adaptation

Presented by: Wayne Salewski, Nechako Environment & Water Stewardship Society (NEWSS)

- Beaver Dam Analog Programs launched to rehydrate streams, grow riparian zones and create fish habitat
- Two types of stream needs have been identified requiring different techniques; These with higher gradient (where water moves through quickly) and low (slow) gradient streams
- Education on BDA's values to the agriculture community is incredibly important; As farmers in the community learn more about aquifers, uptake in the program has increased
- Benefits include aquifer health, source of farm water, permitted irrigation, sub-irrigation and wildfire interface
- NEWSS has invested in other features alongside the BDA's, such as monitoring wells and over wintering ponds
- The BDA monitoring program includes 18 shallow wells that record temperature and water volume, annual drone flights to monitor riparian growth, Electrical Resistivity Tomography (3D model of water penetration) and e-DNA (fish uptake and health monitoring) and fish trapping in streams and ponds
- Planned partnership to PIT tag 1000 Chinook fry from Spruce City Wildlife Association hatchery to monitor their in and out migration over three years
- Look for the NEWSS signs indicating various restoration projects



For more information about NEWSS projects visit newssociety.org





Germorphology of the Nechako River

Presented by: Simon Gauthier-Fauteux, Northwest Hydraulic Consultants (NHC)

The geomorphology, or physical character, of the Nechako River is unique due to its geological setting, glacial history, and history of flow-regulation. In 2021, Rio Tinto funded a large data collection effort to: 1) better understand why the river looks and behaves the way it does, 2) investigate how the physical characteristics of the river (including habitat) may have changed over time, and 3) determine what key geomorphological factors are controlling river processes.

Simon shared a historical look at the Nechako River using geomorphology to explain flow changes over time. He provided a variety of examples of how these geomorphic changes control what the river looks and acts like. How the river may evolve in the future was also discussed.

NHC is publishing a 'Geomorphic Atlas of the Nechako River' that will include all of the data collected through their 2021 study: Lidar (floodplain topography), high-resolution aerial imagery, bathymetry survey, velocity measurements, bankline photos and underwater photos.



For more information about the data collection effort or to request a copy of the 'Geomorphic Atlas of the Nechako River', contact Simon at SGauthierFauteux@nhcwater.com





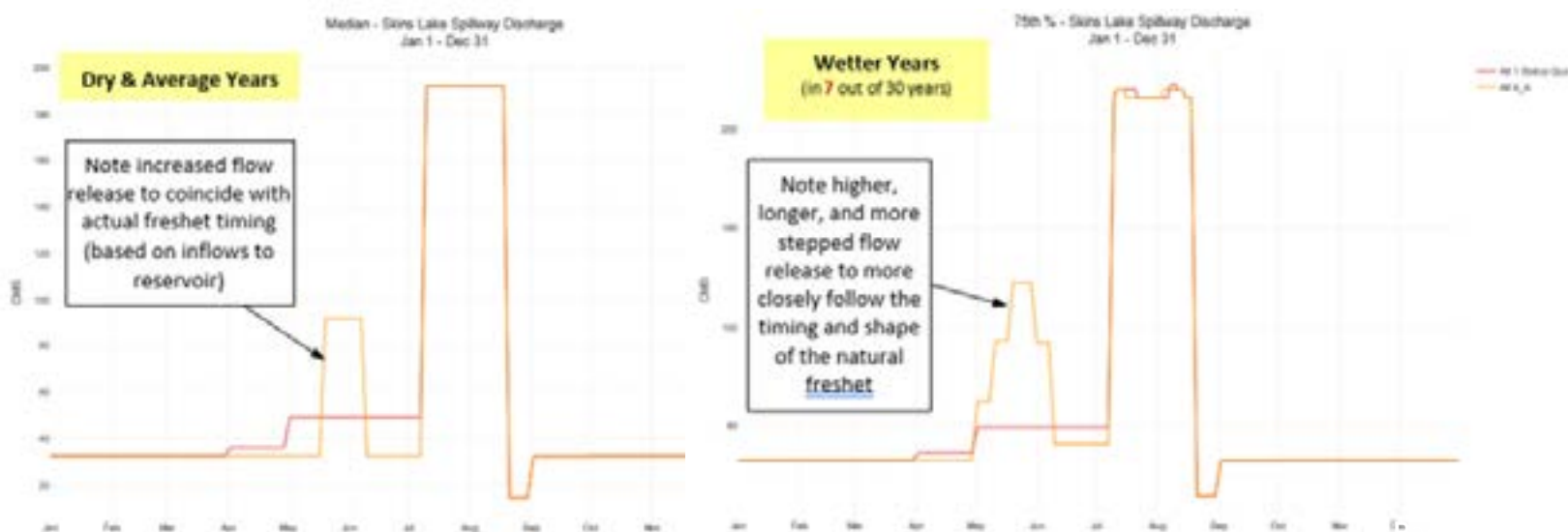
Nechako Water Engagement Initiative Update Presented by: Jayson Kurtz, Ecofish Research Ltd.

The WEI is a multi-stakeholder, consensus-based group formed to establish a collective understanding of the cultural, social, environmental and business interests of the Nechako River and make informed decisions regarding proposed solutions for flow regulation of the river and reservoir. WEI participants include First Nations, federal, provincial and municipal government, academia, special interests groups, the public and Rio Tinto.

After five years of reviewing complex interests and issues, the group has reached consensus on a flow alternative (Alt 6a - shown below) to re-shape spring flows (different wet and dry). A phase one report was finalized in November 2024 that describes the WEI process, summarizes issues and details the flow alternative decision. It also includes non-flow alternative components (data gap studies and physical works), describes monitoring triggers for updates and outlines the transition into a hybrid phase 2 / 3 approach.



For more information please visit getinvolvednechako.ca or email jkurtz@ecofishresearch.com





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