

# Resilient Waters First Nations Initial Meetings Report



## 1 Overview of the First Nations Meetings Report

On February 24<sup>th</sup> and March 3<sup>rd</sup>, 2020 from 9 AM – 3:30 PM the Resilient Waters team hosted meetings with First Nations representatives at Tzeachten Sportfield Board room and Kwikwetlem Community Hall respectively. Over both meetings we had 12 First Nation attendees in addition to our project team.

This feedback has given our team a lot to consider and follow up on. In the interests of getting this information back to First Nations in a timely fashion for your use this report has been kept in a relatively raw note style format. We look forward to seeing you at our advisory meeting in mid-April (date and location TBD). If you have any questions or further feedback please do not hesitate to connect with Dan Straker, Resilient Waters Project Manager at [dan@resilientwaters.ca](mailto:dan@resilientwaters.ca) or 604-812-9676.



# Table of Contents

1	Overview of the First Nations Meetings Report.....	1
1.1	About the Resilient Waters Project .....	3
1.2	Project Timeline .....	3
1.3	Resilient Waters Project Team and Partners.....	3
1.4	Attendees.....	4
1.5	Agenda .....	4
2	Meeting Results.....	5
2.1	Notes by Theme .....	5
2.2	Questions and responses from March 3 <sup>rd</sup> .....	7
2.3	Map Chats (March 3 <sup>rd</sup> ).....	8
3	Feedback on Meeting and Next Steps.....	9
3.1	Results from Feedback Form .....	9
3.2	Next Steps.....	10

## 1.1 About the Resilient Waters Project

The Resilient Waters project of [Tides Canada Initiatives](#) is a two-phased salmon restoration and conservation project that seeks to reintegrate vital wild salmon habitat by modifying and upgrading flood-control infrastructure (FCI) and restoring adjacent habitats in the Lower Fraser Valley region. FCI along the Lower Fraser is vital for the protection of homes, farmland and businesses. Yet, recent mapping shows that over 1,500 kilometers of wild salmon habitat in the Lower Fraser is fully or partially blocked by these floodgates and pumps. Many of these structures and associated dikes must soon be replaced or upgraded due to aging, and/or to accommodate sea level rise and increased seasonal flooding due to climate change. This provides an opportunity to reopen a potentially vast amount of formerly high-value salmon habitat through flood gate replacements, pump retrofitting, associated upstream habitat restoration, and other work.

Phase 1 of this project (October 2019 – March 2021) will identify key opportunities for FCI upgrades and restoration by examining these structures and their affected waterways across the Lower Fraser River watershed (Richmond – Chilliwack) and seeking collaborative partnerships with infrastructure owners and First Nations. The results of this analysis will inform the design and implementation of upgrades and habitat restoration in phase 2 (beyond March 2021). Detailed field work at 15-20 sites in summer 2020 will help to inform the ecological importance of key habitats adjacent to and upstream of flood infrastructure. Results from Phase 1 of this project will also feed into a larger-scale regional assessment and restoration initiatives being undertaken by Raincoast Conservation Foundation, the Lower Fraser Fisheries Alliance, the Pacific Salmon Foundation, the University of British Columbia, and into fish passage remediation work proposed by the Canadian Wildlife Federation and partners. Our data analysis and outcomes will inform their regional restoration priorities and vice versa. The project is primarily funded by DFO and BC Salmon Restoration and Innovation Fund.

## 1.2 Project Timeline

Activity	Time Period
<b>Identifying Key Opportunities</b>	Nov 2019 – March 2020
<b>Field Work and Continued Engagement</b>	April – Aug 2020
<b>Analyzing Data and Refining Opportunities</b>	Sept – Nov 2020
<b>Recommendation Report</b>	December 2020
<b>Phase 2 Workplan</b>	Jan – Mar 2021

## 1.3 Resilient Waters Project Team and Partners

The following are project team members and key support on the project

Name	Organization	Role on Project
Dan Straker	Tides Canada	Resilient Waters Project Manager
Bridgitte Taylor	Tides Canada	Internal Steering Committee
Patrick Lilley	Kerr Wood Leidal (KWL)	Prioritization Study Lead
Mike Pearson	Pearson Ecological	Field Team Lead
Lina Azeez, Aaron Hill, Meghan Rooney	Watershed Watch Salmon Society	Engagement and other support, field work and volunteer coordination
Gillian Fuss and Ian Hamilton	Lower Fraser Fisheries Alliance & Emergency Planning Secretariat	First Nations collaboration support

## 1.4 Attendees

There was attendance from 12 First Nations representatives in addition to welcomes provided by elders and/or councillors, and brief attendance by others that are not named here. We thank all for the gift of their time and for sharing feedback on this project.

Name	Nation
David Hall	Kwikwetlem First Nation
Lance Myers	Kwikwetlem First Nation
Craig Orr	Kwikwetlem First Nation
Stephanie Riedl	Sts'ailes First Nation
Dawn Charlie	Sts'ailes First Nation
Amanda Hendrickson	Chawathil First Nation
Mark Point	Skowkale First Nation
Lory Oberst	Skwah First Nation
Shawn Gabriel	Leq'a:mel First Nation
Jodi Campbell	Boston Bar First Nation
Raymond Louie	Shxwowhamel First Nation
Bill Davis	Skawahlook First Nation

## 1.5 Agenda

Start	Item
Morning	Presentations from project team on background, overview, and objectives
Afternoon	Maps exercise and questions

**All presentations from project team are available for viewing at this link:**

<https://drive.google.com/drive/folders/1mo4rC05VEV9tUE9Jk0DMnHhtkC-gsVGJ?usp=sharing>

## 2 Meeting Results

Below are results of our discussion following presentations from our core project team categorized by theme of conversation or in some cases direct questions as well as some additional notes following conversations looking at maps with flood control infrastructure. Where a question was asked and a response from the project team was appropriate there is a brief summary of the project team's response as a secondary bullet.

### 2.1 Notes by Theme

#### Feedback on Resilient Waters project and process

- Need to have the right people in the room to make decisions
  - Response from project team: once we identify our key opportunities will know be able to focus energy on who should be in the room
- Having capacity for First Nations training and education is helpful
  - Response: Mike Pearson will be looking to hire indigenous field technicians through this summer from Nations depending on which site/territories he is doing field work
- Nice to be included, what would you like us [FNs] to do?
  - Response: Making connections and feedback is helpful, understanding your priorities better and opportunities you are seeing. For understanding ecology and cultural significance - Historical information, engaging with community and elders for fish, habitat, and cultural significance related information
- For project opportunities fact sheet – make sure to include a paragraph on relevant partners, contacts, regulation, jurisdictional context, capital and upkeep costs
  - Response: will do, as opportunities advance we will iterate and add information to these fact sheets

#### Impacts on First Nations

- Rivers being diverted impacts FN and their priorities
- Worried that we will have a situation where we would only have 3 salmon handed out per year like on West Vancouver Island
- DFO laughed at community members when they tried to warn them about lowering the Nechako at ALCAN, took 15 years for them to admit they were right

#### Sharing knowledge and data with each other

- "Can't change the past but can inventory what we have today"
- Science is catching up to First Nations local knowledge like a toddler (whether trauma and grief or flora and fauna and their interactions).
- When you ask us something, make sure we aren't just a little picture or a little quote in the report - when you hear something from our elders listen to it. Cultural knowledge has been shared before and turned around and used against us - not a lot has changed.
- We can hold hands with science, but ultimately cost-effective is what rules the day
- When knowledge is shared and put on the table, we are looking for results.
- Getting some of this info would be great - but some want to keep it in their family, inform the projects in a cultural context
- Sustainability is a major theme - we didn't manage, we lived together in harmony. Find out what the sustainable activities were. Better to understand how they fished and when they fished at certain times. Consider animals and plants

- Is there other data relating to fish and habitat that already exists?
  - Response from team: databases on fish presence are inconsistent, can't really be trusted and need updating
- Go out and acknowledge the people in each territory, doesn't mean you have to work with them. Don't worry about pleasing everyone
- A lot of knowledge that overlaps, doesn't matter if it is not in 'traditional territory' they will probably know some things.
- Need to create an information sharing agreement - don't know how much can be shared, and for what purpose
- All FNs have their own watershed watchers – might be worth asking
- Shxwowhamel Traditional Use Study in 2014 would like to share – need to get permission
- LFFA study for fishing locations – might be open to sharing
- SRRMC might have specific studies

### Connecting work to the bigger picture and system

- Connect all the work with other stakeholders and projects, otherwise its a band-aid approach – and stop the blame game
- Faith that this group can be the wedge to bring people together
- Feeling disheartened, can't see \$ coming from local govts, where will the \$ come from? At same time seems that more money than there has been in a long time for this kind of work
- Need budget and plan for 50 years to be serious about this, but it always feels piecemeal
- Appreciation that the project has taken a step back to identify projects as DFO often has Yosemite Sam approach looking for 'shovel ready' projects too fast
- Climate change changes waterflows, wind, eggs getting washed into the ocean – how to protect eggs and spawning habitat? Need to have eyes wide open on this problem. How is climate change being considered? Some FNs rely on other professionals / outside consultants to help inform them about this.
  - Response from project team: We have good expertise on climate change impacts and modeling on the KWL team and will be taken into consideration when thinking about feasibility and solutions. It is considered a big co-benefit of this project to help communities also prepare for climate change through augmenting this flood infrastructure
- Cumulative Impacts: all these overlapping development projects, how do we take this into consideration?

### Solutions

- Opportunities for offsets – look at Roberts Bank project
- Look at Research credits, can get 10% towards research from mitigation funds
- Look to plug in with First Nations Fisheries Council and their legacy fund. Has been turnover, but reconnect with them
- Diverting water to protect eggs when they are vulnerable

### Decision Making

- SXTA plan (ie. Stolo treaty) will have vote on constitution in November, to understand where power authority lies, need to understand who makes that decision and how decisions can be made. Different layers of decision making and unclear how that will work after SXTA vote

### Problems

- Cost to operate pump stations are huge, so to be cost effective are there solutions to get past doing 'cost-effective'?

- Ownership of orphaned dikes gets thrown back and forth. Don't share same vision in terms of management.
- Water quality monitoring – landfills along Fraser River having impacts
- Sewage outflow at Lulu Island killing fish
- 

## 2.2 Questions and responses from March 3<sup>rd</sup>

These questions were asked directly of communities on March 3<sup>rd</sup> towards the end of the session. We recognize and respect that the responses are not necessarily representative of the Nation's perspective as a whole, but are initial reactions to the questions posed. We appreciate this feedback and will consider the responses with this in mind and hope readers do too.

### What is important to you and your community?

- Kwikwetlem: Fish and safety from rising waters, increasing safety passages getting fish from hydro dam down safely - making a better habitat to get fish back. Seeing NGO's working with Indigenous communities, passion for fish, real strength getting different backgrounds together
- Chawathil: Fish come back to where they used to spawn, Coho were once abundant. Fixing the water ways cuz of logging and impacts - make things better and venture through their waterways. Goes further than what AMBC has been doing. Engagement and community participation
- Sts'ailes: creating environment sustainability plan, and land use, and laws. Data would be really good benchmark to say where are we now with habitats. We know habitat is doing well. Will talk with fisheries about working internally.
- Kwantlen: excitement to meet in same room and talk big issues. Fish depleting and impacting community in so many ways. Elders love to be involved on land and water, in streams. Working in referrals sees a lot of the bad, nice to see good and work together with neighbours, NGO's and government. Seeing this moving forward.
- Shxwowhamel: That smaller creeks and sloughs are being considered.

### How would you like flood infrastructure to change?

- Kwikwetlem: Diking and dam – we were inches from dikes breaching, only one road in and one road out.
- Chawathil: Sea Bird Island Area and Hope Slough - more important. Personal memories there. Are you going to assess these higher & longer dikes, how will it impact fish and water. Prefer more in depth research
- Sts'ailes: Salmon stronghold, only places in Canada with all 5 species. Done a lot of restoration work. Our flood control is lacking must be a way to make infrastructure that balances the needs. Dike is compromised. At risk of freshet flooding from Chehalis and Fraser
- Kwantlen: Glen Valley area, significant cuz it was old reserve land that was stolen.
- Shxwowhamel: Hope and Maria sloughs, lack of flood control infrastructure. Have plans for a dike, need to find funding

### What kinds of data and info do you want to contribute or have collected? Sharing data between us?

- Chawathil: Started own wetland project, build on that. Cultural values needs to be protected.
- Sts'ailes: archaeological information (aboriginal rights and title office) and fisheries with fish data. Dawn would like to stay involved, but need to figure out who should be at which meeting
- Kwantlen: report cards is a cool concept. Lands always looking to access funding and to have quick access to information and sites is super helpful. And for sharing with the community.
- Shxwowhamel: Traditional use study, working on process for information sharing - with elders passing hard to say who owns that knowledge. Access to report cards helpful.

**How would you like us to involve you in this project?**

- Continue to dialogue
- When you have success on an opportunity share it out
- Appetite for 1 to 1 dialogue would be positive - start with contacts to work further on engagement
- FN can set up a community type meeting or questionnaire, then set up a meeting with chief and council
- Like FN specific meetings to hear what other nations are doing, opportunities for collaboration. Invitations and distribution of larger advisory group also appreciated

**2.3 Map Chats (March 3<sup>rd</sup>)**

These conversations took place while reviewing maps of flood infrastructure sites and focus specifically on sites and associated opportunities and issues. In cases where potentially culturally sensitive place-based information was shared with us we do not include in this report. Our apologies for lack of detailed notes for some areas/Nations and discussions, rest assured that the project team has captured these details on maps or by memory, even if not captured in this report. We will look to share an interactive map of potential opportunities by mid-March.

**Kwantlen**

- Stave watershed has 2 hydro-electric dams, was a fishing area.
- Have done restoration work with FVWC - recently restored Whonnock and York Ck, and George's Ck
- Haven't done anything at Yorkson Ck
- Meeting with FVCW to discuss restoration projects in Mission area.

**Sts'ailes**

- Restoration projects on multiple sloughs with DFO
- Possibilities at shore of Harrison Lake
- Dike prevents chehalis river from flooding the Sts'ailes reserve - all band land on both sides of the dike
- Province built the dike in 1987 in cooperation with the band, dike is not up to standards
- Received joint funding for flood vulnerability assessment with Leq'a:mel and Sq'ewlets - in draft first phase
- Freshet is creeping closer and closer to elders houses
- Miami Ck - recently replaced with screw pumps that are fish friendly, not very healthy looking though
- Talk to Kim Charlie and Dave Moore - fisheries staff at Sts'ailes
- IR6 on south side across reserve important area
- Slough enhancements could work for other areas, used as a model

**Chawathil**

- No major dike infrastructure in Chawathil
- In Hope they want to make the dike higher on the Coquihalla River
- Looking for funding, \$150,000 for assessments, mapping, inventory
- Hope District to consult with the community but did not mention FN
- Chawathil camp site area in Hope is depleting
- Greenwood Island also losing land
- We are talking about the upper end of Mariah Slough in Seabird
- There was a trestle bridge that was washed away in 1948
- Must be replaced by a major gate that can be closed
- Mariah slough chinook unique, closely related to interior chinook

**Agassiz Slough** - Top mounted gates, Endangered species in there, no salmonids at the moment

- Miami River and Mountain Slough – recently replaced by fish-friendly pumps
- Looking at Upper end of Hope Slough (next week) - dead water
- **Hope Slough** (note from Feb 24<sup>th</sup>) - intention is for dike to be open all the time, how far back to set the dike? Working with Urban Systems (lead engineering firm), Infrastructure Canada (\$45 mil through DMAF). Procurement and then permitting - 5 years to build. Have had some fish data collected a couple years ago, and potential for more. Have had rip-rap put up and DFO have reported on it.
- First fresh water inputs at **Dunville Creek**
- Mega project idea – breach the dike, several hundred meters of channel to be realigned, Needs engineering feasibility
- Still chinook in there, - Coho, chum in Elk and Dunderville Creek coming in to Hope
- **Chawathil** – back of the river gets flooded from mountain water, Sometimes the river does rise
- Fraser backs up (seepage) and drive ways are affected
- Some talk about flooding techniques but nothing major yet, Info gathering stage – Mostly just last minute planning with the freshet
- Interested in anything oolichen related
- Haven't been up there in at least ½ a century

#### **Herring Island** and mount of Hunter Creek for sturgeon

- Sturgeon out in Yale and past Spuzzam too
- Two sites in Sq'ewlets (Mike is working with the band)
- High possibility, Beautiful riparian
- The pump station has been retrofitted to be fish friendly
- farmers won't allow on land
- Mushroom farm right on the Fraser downriver from Chawathil, chicken manure, lots of nutrient run-off, piping running into the Fraser – either outflow or water source

#### **Sumas – barrowtown** – is it fish-friendly?

- Upper Pitt – culverts – maintained and looked after by TS Jones a forestry company (CWF possibly looking)
- On board with opening the big sloughs

#### **Hatzic Lake and Slough**

- There is a fish friendly (ff) pump station (2014), the water gushes out onto large rip-rap May – June. Gates are not f-f at all
- From May – Sept they stop sluice gates to keep the lakes nice and high for recreation
- Two years ago there was a big fish kills including sturgeon
- High nutrients, no oxygen

#### **Shway – bottom end of Hope Slough**

- Creation of natural marshlands?
- Fundamental problem with the nutrient overloading is there are just too many animals

## 3 Feedback on Meeting and Next Steps

### 3.1 Results from Feedback Form

We received feedback forms from all attendees, and generally feedback was quite positive and supportive of the project. This is a summary of some highlights in the feedback:

- **What you liked most:** commitment to the Fraser, learning about other FN's priorities and challenges they face, visiting other FN's, presentations and networking, map chats, talking bigger picture issues
- **What you would change:** break up presentations in morning with more discussion and engagement, perhaps a field component, prayer, more focused intro presentations, would like larger turnout
- **You'd like to see more discussion about:** cumulative impacts, holding stakeholders and governments accountable for past wrongs, more interaction with elders and youth, industrial buildings having impacts on the river
- It was unanimous among all nations wanting to attend larger advisory meetings (with ENGOs, academics, and colonial governments) as well as First Nations only meetings. Where and when appropriate connecting 1 on 1 with nations as well
- Most attendees most prefer to get updates and provide input by email or at in-person meetings, and least prefer remote meetings, webinars, and surveys. Phone chats are OK.
- It is always important to carry gifts for elders – tobacco or medicine pouches usually well received

We really appreciate all of your feedback, questions, and advice and this will help us to be better at working with you.

### 3.2 Next Steps

In the next month the project team will be working hard to:

- prepare a long list of sites (30-40) and make more site visits
- prepare a field work plan and begin detailed field work at already identified high opportunity sites
- continue engagement and collaboration with First Nations, infrastructure owners, and municipal governments
- prepare a draft short-list of sites based on recon visits and initial engagement results (15-20 sites)
- set a half-day advisory meeting (mid-April) and First Nations only meeting (late April or May) to present the results of the above and get your feedback

If you have any questions, suggestions, or feedback about any of the above, or for the project in general please don't hesitate to contact Dan Straker, project manager at 604-812-9676 or [dan@resilientwaters.ca](mailto:dan@resilientwaters.ca)

**Resilient Waters is a project of Tides Canada's Shared Platform. Thanks to our funder DFO & BC Salmon Restoration and Innovation Fund and our project team and partners**

