



UFFCA
upper fraser fisheries conservation alliance

General Meeting April 26th, 2018
9:00 am - 4:00 pm
Pioneer Log Homes Complex - Williams Lake, BC
Lunch & snacks provided

OBJECTIVE: Facilitate Community Engagement
Upper Fraser Fisheries and Environment Project Updates

Tier 2

1. Call to Order - Welcome and Introductions
2. Approval of Agenda
3. Review of Action Items
4. Chilko Bull Trout Study – Nathan Furey
5. Chilko Smolt Release – Richard Bailey
6. 2017 Harvest Summary and Creel Data – Robin McCollough
7. DFO Freshwater Ecosystem Science and 2018 Environmental Forecast – David Patterson
8. Fisheries Habitat Restoration Initiative – Michelle Tung
9. Chinook Plan
10. IFMP Feedback – Robin McCollough
11. IFMP Response – Pete Nicklin

Tier 1

1. Introduction to Nechako Chinook and Sockeye Technical Document (Co-authored by Dave Levy – Pete Nicklin)
2. Southern Endowment Fund Quesnel DIDSON Project – Pete Nicklin
3. UFFCA Roundtable



UFFCA

upper fraser fisheries conservation alliance

In attendance:

Michelle Tung	UFFCA
Dave Feil	NSTC
Kelsey Campbell	UFFCA
Christina Ciesielski	CSTC
Kent Gerow	Burns Lake Band
Dean Joseph	Yekooche FN
Thomas Alexis	T'lazt'en/UFFCA
Carl Frederick	Lheidli T'enneh
Robin McCullough	DFO
Jamie Scroggie	DFO
Erwin Tom	Wet'suwet'en FN
Pete Nicklin	UFFCA/TNG
Shamus Curtis	UFFCA
David Patterson	DFO
Nathan Furey	UBC
Randy Billyboy	TNG
Guy Scharf	DFO
Pete Erickson	Nak'azdli Whut'en
Pamela Clement	Nazko FN



UFFCA
upper fraser fisheries conservation alliance

Tier 2 Agenda – 9am – 2pm

1. Call to Order and Introductions

Called to order at 9:15am. Welcome – Gord Sterritt, prayer – Thomas Alexis.

2. Approval of Agenda

Agenda approved.

3. Action Item Review

Action items in working progress or completed.

4. Chilko Bull Trout Study - Nathan Furey

Interest is on the smolt life stage of sockeye. Acoustic telemetry is used for smolt tagging, which provides information on individual smolt migrations; tags track salmon over 11,000 km. Chilko River, before freshet is when smolt migration occurs, levels are low, clear water and flow is slower, but yet survival is low – trying to figure out why.

When the project started at Chilko Lake, noticed many Bull Trout rearing at the mouth of the lake, eating 10-12% of their body weight in smolts. Bull trout eating smolts at all water temperatures even though digestion usually temperature related.

Majority of smolt migration at night and survivors are found to be traveling in groups, increasing their survival rates. Goal is to understand predator behavior, are they selecting their prey at random, or are their prey being targeted by other predators? Bull trout are found to be preying on smaller smolts and is a consistent response in 3 consecutive years of testing. Smolt with infectious hematopoietic necrosis virus (IHN) were more likely eaten by bull trout, showing trout target weaker smolts. Also finding a link between mortality and IHN in smolt migration, infected smolts less likely to migrate successfully.

Started the bull trout project in 2017 when 20 were tagged with acoustic transmitters, 65 trout with external, high reward tags (\$75 reward, must be called in with information on fish, 6 called in, all rewards given). 65 adipose samples for population identification, 34 fin ray samples, ages between 3 and 8 years old. Limited by wildfires.

Work continues through 2018 to make up for wildfire setback. Goal to tag 40 trout with transmitters, and 124 external high reward tags. 49 bull trout captured, 19 tagged with acoustic transmitters.

Smolts need high densities to swamp waiting predators, migrations are influencing Bull Trout feeding and behavior, Bull Trout predation may assist with migratory culling for smolts.



UFFCA
upper fraser fisheries conservation alliance

2019 and beyond, estimates of exploitation rates of Chilko bull trout, core areas used, distances traveled, age and size structure, and understanding linkages between bull trout and salmon.

Q – What affect do you see on Provincial regulations on bull trout?

A – There is a lot of bull trout, but the Province is learning that trout move around more than realized. It brings up a lot of population structure questions. The Province wants to get better handle on the population and their movement into other rivers/lakes.

Comment – In our area, we have a lack of predator fish, but also don't have the smolts for them to eat.

Response – Not sure how predators respond to larger smolt populations, would those predators stay?

Q – Have you reviewed literature focused on Takla middle river area on bull trout? It was done in the early 90's; a 7-year project to study the streams, and bull trout were in those streams.

A – No, I haven't but I'd be very interested to read it.

Comment – Should study the rate of mortality of bull trout at the fence, and the relationship with IHN.

Q – Are you able to determine the population of bull trout and their effect on the smolt mortality?

A – Not right now, but we are working on a bull trout population size.

Q – When you were catching bull trout, were stomachs scanned?

A – This summer we can potentially do that, we were limited by wildfires last year. We are happy to stomach pump and tag them at the same time.

Q – Does this bull trout-sockeye interaction work into the changing landscape or shifting trends?

A – My guess is that given the behavior of bull trout, link has been going on for a long time, trout are probably adapted to feed on smolts, so we think they're exploiting on the adults coming back to spawn as well. It is a very long-standing relationship between predator and prey. But how climate change has affected that is a very different question, there are possible mechanisms that affect these fish.

Q – The Chilko stock is quite consistent year to year, but what would happen cyclical? Going from strong years to very poor years.

A – There is variability, 2015 was an odd year, water levels at Chilko never went down, because of that, we don't have numbers of smolts out-migrating, the bull trout were still there.

5. Chilko Smolt Release – Richard

Omit.

6. 2017 Harvest Summary and Creel Data – Jamie Scroggie

Last year was very problematic, there was low returns and BC Interior faced wildfires. Was a sharing situation of Fraser Sockeye; limited openings in certain areas; no recreational/commercial fisheries.

Harvest totals for Chinook 3,445, Sockeye 45,431, Pink 1,906, Coho 106. Sockeye catches, relative to brood year, were much lower. Average catch over last 4 years was about 146,000. Chinook catch relative to 4 years ago was about the same; similar to average.

Comment – We have potential to catch 10x we have, but our people won't set nets unless the Chief or I say it's ok. I worry about catch results rather than effort results, or potential catch. This year, the Late Stuarts should be



UFFCA
upper fraser fisheries conservation alliance

able to be fished, we want to potentially get 20,000. DFO Management practices and lack of presence at Nak'azdli, you have no idea what goes on there.

7. DFO Freshwater Ecosystem Science – 2018 Pre-Season Environmental Forecast for Summer Water Temperatures and Discharge, and Potential Research Plans in Fraser Watershed - David Patterson

Every year we look at discharge, water temperature, long term air forecast, and snow pack; sets up the management adjustments to Fraser Sockeye. Past winter was cooler than normal by 2-3 degrees. Discharge in mainstem Fraser, January to May, is normal, except to expect higher flows in Nechako. Water temperature colder than normal. The snow pack is concerning in Upper Fraser east and west. But high flows can mitigate rising water temperatures. However, high flows can bear upstream migration issues. Air temperatures expected higher than normal. Warm air temperatures, warmer rivers. Looking for feedback on temperature projects going on in the Upper Fraser area.

Juvenile salmon research: sockeye smolt energetic work at key lakes (Cultus, Chilko, Chilliwack and Seton); changes in lake productivity effect smolt condition; connecting smolt condition to early marine survival; future, evaluate other lakes in the Fraser Basin.

Adult salmon research: Biological sampling (energy, pathogens, reproduction, stress) focusing on major runs; Fraser Sockeye tagging, interaction fishing, temperature, and pathogens, gear variation, fish condition, temperature, pathogens covariates; Tagging at Seton River; radio tagging at Late Shuswap in Lower Fraser, matching holding study at Chiko.

Comment – On the south side of Stuart Lake, some areas have 2 ft of snow, ice is still up to 3 ft thick.

Comment – Stuart/Takla drainage produces a lot of the water for that system.

Q – Noticing anything from snow pack to what the freshet will be? Is the ground picking up a lot?

A – Focus on upper part of the watershed. As soon as the flood risk recedes, the eye on freshet drops off. Not sure if there's ongoing information on ground water.

Comment – Opportunities for sampling this season; if we see something interesting, we'd be interested opportunity to get stress testing done.

Response – Yes, contact me. Depending on the problem, we can help, or put you in the direction.

Q – Your tagging experiment, why focused on the late run? This year is shaping up to be more normal for environmental conditions, why not tag some summer run?

A – Last year we did summers. We know what happens at high temperatures with disease and fishing, this year hoping for normal conditions. Open to tagging earlier, but don't have enough tags, and if a lot of fishing then we may lose those as well. Stock specific response to these stresses are important to determine. Wouldn't mind talking about modifying our tagging programs.

Q – Last yr tried smolt work in Fraser Lake. Interested in that information? Working on methodology.

A – Yes, we would be.

8. Fisheries Habitat Restoration Initiative Update – Michelle



UFFCA
upper fraser fisheries conservation alliance

One of the main programs is the water quality and quantity program. What has been recognized is when looking at various critical decision-making priorities, you need baseline data. After 2 yrs, we have data. General observations, rainfall events in summer and fall 2016 led to less severe and later low flows; 2017 was a dry year with early and sustained low flows. Looked at fecal coliform on Stoney Creek downstream and will be digging deeper to see what the source is (human, agriculture, septic).

Another project is flow management weirs; Nithi Weir management plan, repaired weir, restored key fish habitat and identified areas where beavers are impacting fish habitat, installed 3 monitoring stations, developed a work plan for the summer to monitor water levels/flows and adjust gates to meet salmon needs. Endako River Weir Solution blueprinted developed for passive weir, low maintenance, allows fish passage, does not increase maximum high lake water elevations.

Regional Beaver Management – Habitat restoration; removing dams, trapping beavers.

9. Chinook Plan – Robin

Technical information was discussed at April 23rd JTWG; update will be provided via email.

Taking average of number of years for ER from various fisheries and stocks; using CWT's to get ER for stocks. South Coast recreational meeting with DFO to determine how to meet the proposed reductions. DFO not seeking additional FSC reductions.

Measures being considered: reduce daily limit, change length restrictions in areas outside Juan de Fuca, delayed start of Area G troll and reduction of initial allocation. North Coast considering reduction in daily limit (marine/freshwater areas), and troll fisheries delayed. South East Alaska 10% reduction for local stocks, could benefit Canadian stocks.

Q – Is this presentation consistent the way DFO will communicate this?

A – I made this presentation.

Comment – What I heard on the call, DFO is not seeking additional FSC reductions, and that looks like that's how it's going to play out, but I guess that will depend on the in-season numbers.

Comment – DFO has said in the IFMP they want to reduce fishing coast wide by 25-35%. Spring 4-2's, Spring 5-2's, would be part of this reduction. As it turns out, Fraser Chinook aren't part of this 25-35% reduction. The zoned management approach is not changing, there's no regulation changes from last year to this year. Without changes to zone management approach, there's no conservation measures for Fraser Chinook. Richard Bailey is concerned that Portage (CU) will drop off the map this year. I see DFO not seeking additional FSC reductions, which I'm happy to see. DFO is refusing to change something with the recreational fishery and in the Lower Fraser. Upper Fraser FNs should not be happy about this, and letters should be sent to DFO. Commercial fishery for those Chinook, has been locked down pretty good, I'm not as concerned about that. The only saving grace for these fish, is if they return at such low numbers that they are in zone 1.

Q – How can we get that message across? What about getting the media involved?

A – Write letters. Media good but needs to be put on record; needs to come from leadership.

Comment – So they're not lowering FNs fishery, but also not lowering for any other fishery.



UFFCA
upper fraser fisheries conservation alliance

Q – Where are those proposed reductions coming from?

A – The proposed reductions don't include Spring and Summer 5-2's. DFO hasn't communicated that regulations will change for Spring and Summer 5-2's. Attempt made to pull the wool over my eyes.

Q – At what length are they going to change the restrictions, if going to a smaller fish? Our fish are in jeopardy, because they are huge. Are they going to make restrictions larger or smaller length?

A – There aren't any specifics laid out yet on length restrictions.

Response – Regardless what they do with these measures, most of our stocks will be implicated.

Comment – I can't say there will be any more protection on these fish. I've dug through all the technical information, and nothing in there is going to help. The simple message to DFO, with what DFO has conveyed the 25-35% reduction, this is not a good approach.

Comment – That may be directly communicated to Jeff tomorrow.

Q – South Coast rec fisheries meeting with DFO about reductions, if largely North Coast, then why are they meeting with South Coast? I may provide a template response for UFFCA FNs, would be good to attend the call tomorrow, to hear how our issues and feedback is responded to.

forecasts for 2018 IFC: 36,538, brood return was 13,000; this would require a return that was 2.8 times greater than brood, only seen that kind of return once since 1998; average has been 1.4 fish returning from brood which would predict half the current forecast.

Engagement plan related to PST – workshop coming up May 1-2 with invited FNs participants. Canada's commitment under the PST to develop southern BC Coho reference points and corresponding ER caps. This work will inform 2019 and beyond.

Bill C-68 has been referred to Standing Committee, and open to comment.

10. IFMP Feedback – What DFO Heard – Robin

Webinar on Friday, April 27th from 1-3:30pm.

11. IFMP Response- Pete

UFFCA put in an extensive letter with 14 recommendations and technical background; template letter for Nations to use. Summary document distributed by DFO. Noted that there was a couple of omissions in DFO summary table that should be outlined in document. Discussion continued in Tier 1.

12. 2018 Fraser Sockeye ESSR Evaluation – Jamie Scroggie

DFO received feedback in support of exploring ESSR fisheries. FNs interest to harvest terminally when abundant returns in traditional territories. ESSR often conducted at hatcheries.

Comment – DFO's answer for hatchery issues. DFO started to explore broadening the application of this policy.

FNs upstream support reduced mixed stock fisheries and FNs recommended more stock specific management in some cases. Recently there have been instances of record escapements well above historical observations and



UFFCA
upper fraser fisheries conservation alliance

Smsy (spawners at maximum sustainable yield) also the opposite is true. 2018 is a dominant Fraser return year and may be significant overlap and harvest constraints in mixed stock fisheries that may provide some additional stock specific harvest opportunities. Stellako and Chilko may have some opportunity for ESSR fisheries.

Q – The red status, has there been any decisions made on extending the window closure?

A – FNs and stakeholders have provided mixed feedback on the one-week window closure extension. Lower Fraser/Marine area does not support that window closure.

Comment – DFO should look at these fish and see they're in red status, regardless of what the Lower Fraser/Marine area thinks.

Comment – UFFCA provided feedback at the Forum, the window closure is for an extension to the Early Stuart on Bowron, Taseko and Nadina. Nadina was to have opportunity for the community.

Q – You mentioned COSEWIC, and discussions within DFO, when do we get in on those discussions? I wouldn't want a SARA listing on Early Stuarts without direct talks with the COSEWIC people.

A – Will be going through engagement process with FNs, it's just ramping up right now.

Comment – I would have never agreed to SARA list the Sturgeon.

Comment – COSEWIC doesn't engage with FNs, we've tried, the listing is already done, but you will have engagement at the SARA listing.

Comment – Some COSEWIC messaging has talked about involving some FNs traditional knowledge.

Q – Where's Taseko lumped into that?

A – Taseko is not forecasted and would not have terminal fisheries.

Comment – Implications of discussions with FNs is huge. Not just management reference points, you are coming up with an escapement goal. Without escapement goals as your foundation, there's no way to have confidence in management reference points. Happy to see this presented, rather than fighting at Forum level, by you coming here and opening up for discussion, but lots of leg work needed.

Response – I'm not trying to do that. A proposed upper benchmark is 80% of Smsy. I'm not saying it's an upper benchmark; they are just management points.

Comment – You can't have a management reference point; it needs to reference something.

Comment – DFO IFMP ESSR framework, FNs may consider ESSR; harvest level will depend on stock information. It's a risk-based framework. DFO has have gotten feedback from conservation groups, and groups in the Lower Fraser that are in favor of a sort of ESSR framework.

Q – Does it matter how you fish terminally?

A – In the Stellako for example, they have demo allocations, Meet FSC first under license with gear.

Comment – We want a dual fishery, through the entire run period, opposed to back end loading. That's additional terminal harvest. CSTC FNs want additional Stellako terminal harvest for this year, but storage for subsequent years. Presenting on ESSR, but we have the concept of additional terminal harvest, need a meeting to identify which; demo allocation, food fish is different.

Response – For example, there's been constraints for Early Summers, a strong Chilko run, so we exceeded our rules. Even though above ER and fishery has gone over the 10%, in that case, if there's a high abundance then could be ESSR as food fish but isn't included in LAER. So, there's different rules that we manage by that makes some sense to categorize it as one or the other (ESSR/terminal fishery).

Comment – On behalf of CSTC and Upper Fraser FNs, need to have discussion before the end of May.

Comment – One of the challenges would be to figure out what escapement might be.



UFFCA
upper fraser fisheries conservation alliance

Comment – regardless of the other processes, if it swam through their territory, it's not their property. We have a percentage of TAC that we can fish, so I wouldn't be looking at any transfers.

Comment – Short term and longer-term thing going on, have rights-based fishery, then policy that's ESSR, you have stuff proposed for this year and longer-term Chapter 4 renegotiations looming. A change in management and issues identified by USA, exceeding LAER. There's need for a focus group to iron out things between FNs and DFO. May/June for Upper Fraser engagement good but need to be part of short/long-term consultation and technical analysis. Not the same as the FRSSI group, because it's about rights-based fisheries.

13. Spill Response Legislation – Pete Erickson

Was a PG meeting to discuss changes to spill response legislation and where responsibility lies for spills in North. On the coast, it's steered not towards FNs. That infrastructure hasn't been determined in the north yet. If there is a spill, actual infrastructure and big dollars will be bypassing FNs. Carrier (Dakelh) are on the water, will be the focus of infrastructure development. No inclusion of FNs.

In the north, the companies have until June 1st, to present spill response plans. Drafting legislation, can respond until April 30th – very short timeframe. There are still many loose ends that allow industry that exclude and gang up on FNs.

Comment – Should be a FN Spill Response committee developed. FNFC usually has travel dollars so you can attend. Having a Spill Response Centre in PG, Fort St. James and elsewhere, would be a great opportunity for FNs to get dollars, employ community members, etc. It's very important.

14. FSMC Update – Thomas

Process has been stalled since December 20th. There was a face-to-face negotiation on February 22nd but was not very productive. One meeting held with DFO since; lead negotiators to deal with issues and accomplished. A conference call was held March 26th, to discuss edits and wordsmithing changes DFO made to the draft agreement. An additional meeting was scheduled for 20th but cancelled.

Some key elements are easy to deal with but need to find out what DFO priorities are for management to feed into process.

May is the last month for bilateral negotiations. Updates will be provided to member delegates about negotiations as well. Anticipating negotiations will be finalized by March 31st, 2019.

15. Summary of Tier 2 Action Items

No tier 2 action items.