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### **Day 1 | Tier 2**

### Welcome, Introductions

Facilitator Marcel Shepert welcomed DFO participants and led introductions.

### **DFO & FSMC: Action Item Tracker Review**

Greg Witzky, FSMC & Les Jantz, DFO

DFO and FSMC reviewed a table tracking action items from the last Forum and responses completed/pending.

- · Rec fishery regulatory framework: Is there interest in this for April?
  - · Forum Planning Committee to explore interest for Forum 3 AGENDA?
- David Patterson update on radio telemetry work, with a focus on fish passage issues. Also work needed on old fishways?
  - Forum Planning Committee to explore interest for Forum 3 AGENDA?
- Did more salmon reach spawning grounds due to fishing reductions upriver? Likely some more, but not all did make it.
- Jet boat impacts: DFO is finding Transport Canada contacts to follow up but unclear who
  would lead this. Possible Lower Fraser presentation on how they addressed it.
- Challenges providing PPTs in advance for this Forum because presenters were fully booked with PST meetings the week before, and many came back with COVID.
- Policy & process issues: FSMC is following up with the Salmon Coordinating Committee's IFMP committee.

#### Discussion

- Trying to resolve Jet boat concerns via Transport Canada requires a lengthy process (1 to 2 years plus) to engage and consult stakeholders, local jurisdictions and government regulators to seek support. Lower Fraser nations who submitted applications to Transport Canada experienced this. Transport Canada's process is not conducive to protecting fish in spawning grounds from jet boats (and recreation) during migration and/or spawning periods. DFO and the Province could take a leadership role with First Nations to try and change Transport Canada policy and regulations, perhaps.
  - Upper Fraser used SARA critical habitat provisions to ban jet boats to protect Nechako sturgeon.
  - Also potential health/water quality angle lots of current research on impacts.
  - More and more small 16-foot boats are now accessing smaller streams and shallow spawning areas.
  - Opportunity for DFO, BC and First Nations to explore solutions that avoid invoking SARA, which has major implications for everyone.

#### DFO: State of the Salmon

Sue Grant, DFO

Presentation highlights included:

- Overall warming trend and patterns: more extreme events on land and in the marine environment driven by climate change.
- 2023 Fraser salmon returns: Overview of which years they spent in marine/freshwater.
- Overview of key environmental conditions in those life history years, including snowpack, summer air temperatures, summer precipitation.

- Also Impact of forest fires: loss of forest canopy, erosion, sedimentation, flooding/scouring.
- Slightly better marine conditions in 2021 and 2022 so negative conditions were not across the board.
- Long term warming trend: ocean has been absorbing 90% of excess heat.
  - The Blob: extreme event, started in 2013 and persisted even through the cooler La Nina that started in 2020.
- Environmental conditions informing salmon returns in 2023; in addition to broad signals, we
  do see unique responses to localized conditions from certain populations.
- · Pacific salmon will continue to be affected as climate change continues.

#### Discussion

- Regarding the reasons why 2022 returns may have been more productive, what are the
  chances we will see that again in 2023 and/or beyond? Looking into a future of extreme
  climate change, we need to seriously consider the importance of getting every fish to the
  spawning grounds so that the fish can genetically adapt to future conditions.
  - DFO: I can't answer specifically on expectations for Fraser Chinook Summer 52s in 2023, other than to say it's becoming more challenging to make predictions because correlations are starting to break down with the environmental changes underway.
     We need to start working together to identify vulnerabilities and opportunities to help salmon become more resilient, and also on the social, economic and cultural implications of these changes. We've been thinking about climate change adaptation and we need to discuss what we can do.
  - In 2021, 2020 and 2019 I fished with 8-inch net and we were catching the large bodied Chinook Summer 52s. Gillnets can be selective if used correctly. Maybe we should use 7-inch nets if we want to avoid the large Summer 52s.
- Question about favourable ocean conditions in 2021 despite the intense summer heat dome that year. Also there were larger and more intense forest fires in 1920 and 1930.
  - DFO: We had localized coastal heat wave effects with the 2021 heat dome. But on the broader scale, the ocean was cooler than the previous year. It was interesting that the zooplankton switched back to the healthier species that are good for salmon that year.
- What do we need to do and whom do we need involved to start addressing these big questions?
  - There is a big event this weekend in Merritt involving all those people and looking at those questions.

### **DFO: Fraser Sockeye & Pink Forecast**

Mike Hawkshaw, DFO

DFO presentation highlights included:

- Review of 2022 forecast performance; historical trends showing periods when returns were coming in below/above the forecast.
- Fraser salmon returns and productivity historical trends.
- Fraser pink returns and productivity historic trends (colour bars = different assessment regimes).
- Escapements (effective female spawners) for individual Fraser sockeye stocks in 2018 and 2019, relative to cycle and long term averages.
- Chilko high-precision freshwater survival estimate very similar to the historical pattern for broader Fraser sockeye.
- Stoplight chart showing very positive recent marine environmental conditions, but...
  - 2023 returns from very low 2019 brood strongly affected by Big Bar slide.
  - Fall 2021 Fraser Valley floods potentially impacted pink egg survival in Lower Fraser.
     Fry outmigration survey showed numbers well below average despite higher than average spawners. Also later outmigration timing, suggesting perhaps a gap from the Lower Fraser populations most affected by flooding.
- · Summary 2023 Fraser Sockeye and Pink forecast table.
  - Expecting returns dominated by 5-year old sockeye.
- · Key messages: Sockeye positive/negative factors, higher uncertainty.
- · Key messages: Pinks high uncertainty.
- Environmental conditions: better lately for sockeye, but negative for pink.

#### Discussion

- Which other years had low pink outmigration?
  - DFO: Details are in the Forecast document (previous lowest was 2009)
- ACTION: Ensure First Nations technical reps have access to the sockeye forecast.
   Suggestion to establish internal DFO process to ensure such info is shared in a timely/transparent manner to support FN technical staff.

#### **DFO: Fraser River Coho**

Madeline Thomson, DFO

DFO presentation highlights included:

- Fraser River coho: 2 MUs (Interior Fraser and Lower Fraser), assessment program and PST status designation framework.
- IFR coho abundance and harvest historical trends; protection measures since mid-1990s.
- PST status categories for IFR coho (Low, Moderate & High) with ER caps for each and conditions to raise status.
  - Escapement condition met for 2 years; 2022 data will be ready mid-March

- Q/A: Escapement condition applies to non-hatchery fish (excludes clipped hatchery fish).
   Most interior hatchery enhancement is for CWT program, so those fish are clipped/marked.
  - Smolt to adult survival benchmark of 3% met in 2021, but 2 more years required over 3% to meet this condition. 2022 results will be ready shortly.
- For 2023, status will remain low, with PST Canadian ER cap of 10%, but Canada will
  continue to manage fisheries more conservatively, limiting fishery impacts to between 3-5%.
- With the potential to upgrade IFR coho status within coming years, DFO plans to start engaging with FNs and others about how to prepare for that.

### LFFA: Lower Fraser Coho Assessment Project

Aidan Fisher, LFFA

LFFA presentation highlights included:

- · Project background, partners, including DFO, LGL and individual nations.
- No full assessment system in place for the Lower Fraser coho MU; Canada needs to
  establish Low, Moderate and Abundant status categories, with escapement goals and ER
  caps based on status.
- Project components: Lillooett sonar, New West Assessment fishery and Chilliwack PIT arrav.
  - Covers 3 Lower Fraser populations, using otolith, PBT (Parental Based Tagging) and GSI (Genetic Stock Identification) marks for stock ID.
- Assessment fishery at New West to sample the entire coho migration: bio samples taken
  from all coho encountered, with destructive sampling of clipped fish; fishery uses tangle
  tooth net and handling methods to minimize mortality.
  - 2021 results: terminal run estimates for natural/hatchery origin fish for the 3 populations, along with error/uncertainty estimates.
  - For 2022, 20 sampling days from Aug 30 to Nov 3; summary of catch; preliminary GSI information. Full results to be presented to the Working Group in April.
- · Chilliwack Mark Recapture program:
  - · Technical overview of PIT tagging and detection; challenges linked to 2021 flooding.
- Feasibility project review and timeline, including next steps.

- Q/A: The sampling is also looking at differences in migration timing for samples identified as IFR vs. Lower Fraser MUs.
- Q/A: Planning to increase tagging to 20K juveniles going forward.
- Q/A: High error rates in the first year were due to low detection rates, but these will tighten
  up as the system is tweaked.
- Q/A: Would increasing the number of sampling days decrease error rate?

 LFFA has used funding from the Southern Endowment Fund and BCSRIF for this work to date but will need to work out an A-based funding solution with DFO to ensure it can be continued and then also to look at how to use the info to support management.

### **DFO: IFR Steelhead Update**

Jeff Radford, DFO

Brief DFO presentation provided a recap of proposed 2023 measures to protect IFR steelhead:

- Marine & in-river FSC fisheries
- Marine recreational fisheries.
- Commercial fisheries.
- BC and Canada manage IFR steelhead jointly; both DFO and the Province have had recent staffing changes on this file and are currently building new inter-agency links.
- Question: Does the Forum want a more in-depth presentation with the Province at the next Forum in April? AGENDA APRIL?

- Lower Fraser encountered 1 steelhead at the end of their fisheries in Yale last year. Last
  year we fished 6 days a week and only caught one steelhead, but we get unfairly blamed for
  stock impacts. They want to get rid of gillnets but there are limited places where we can use
  beach seines. We had far fewer nets out this year compared to years ago because people
  are losing faith. We're losing our way of life.
- Is there information on steelhead encountered in marine recreational fisheries propose a report on that in future. We met with DFO and the Province when the Action Plan first came out but the only tangible action we've seen to date is the DFO window closure. Maybe instead of a presentation, all we need is a report showing which of the promised actions have actually been done. COSEWIC has re-assessed steelhead as endangered, so it is now subject to the SARA listing process. If they are listed, it would require no impacts anywhere, so where are they in the listing process?
  - DFO: Requests noted for a summary of actions taken under the Steelhead Action Plan and a summary of rec fishery impacts. (Also question about SARA process)
     ACTION
  - DFO: There are no marine rec fisheries that target steelhead).
- The Province has no Fisheries Ministry and the Ministry of Agriculture seems to lead on decisions affecting steelhead. This file has been in limbo for a long time. The lead Provincial steelhead scientist is willing to present to the Forum if the Province approves.
- Lower Fraser also needs more assessment for Lower Fraser Steelhead, similar to the current coho work. Suggest reviving the tripartite process with BC to address steelhead. Currently, only rec has access to steelhead, so we need to discuss First Nations access.
- Propose that FSMC's president write the Premier asking that he send someone to speak at the next Forum. The Province and SFAB put together a plan a few years ago without ever

consulting us. It's very difficult to get them to respond to us. They acknowledge we have rights but don't do anything to honour those rights.

- Q/A: There are a number of different steelhead runs within the Fraser, about which very little
  is known some are summer and others are winter runs, with several different stocks in
  each
- DFO: As a former provincial biologist, suggest it's important to get a decision maker like Trevor Rhodes to speak to the Forum. (Noted that Rhodes is retiring)
- Propose including Dave Moore presentation on Steelhead. (Ken).

Adjourned: 3:15 pm

### **Day 2 | Tier 2**

### Welcome, Review of Day 1

Marcel welcomed everyone back and gave a recap of key points from Day 1, covering:

- · Fraser Sockeye and pink forecast mixed conditions, high uncertainty.
- Mark-selective Fisheries: More today, discussion needed re significant concerns.
- State of the Ocean: continued warming and extreme conditions expected, despite recent La Nina-related improvement.
- Interior Fraser coho: need to start planning for if/when fisheries
- Lower Fraser coho: overview of LFFA-led project, need for funding, potential benefits for fishery management.
- Action tracker: will be an important tool going forward, including as a way to refer topics that can't be handled by this table (e.g. jet boats).
- Process issues: concerns, conflicting advice about Forum agendas, focus, process concerns. Note that Forum review is underway and a need to unpack conflicting advice and priorities about what the Forum should be.

- Suggested incentive for in-person participation but also support for maintaining hybrid option for those who can't make it in person.
- Concerns noted about the extreme pressures currently being placed on 2 FSMC staff and need to expand capacity to support the Forum process and FSMC's broader mandate.
- Issues like steelhead, jet boats are both critical to FSC fisheries access for Lower Fraser.
- JTWG should be doing more meaningful review/analysis vs reviewing Forum presentations.
- · Propose expanding JTWG role to address complex issues, link to JTC in Forum reform.

### **DFO: 2023 Fishery Planning**

Mike Hawkshaw, DFO

DFO presentation highlights included:

- Overview of IFMP planning considerations.
- · Considerations for FSC fisheries.
- · Dual fishing pilots.
- · Additional monitoring for commercial fisheries
- · Southern BC Chinook:
  - FSMB (Fraser Salmon Management Board) management advice for 2023 management:
    - Noted that FSMB's JTC is currently working on management scenarios for FSMB to discuss at their March meeting.
  - Also concerns about Quinsam and Harrison chinook: PST (Pacific Salmon Treaty) commitments to manage exploitation rates to meet specific targets.
  - Fraser chinook management and data review (2022 data not yet ready).
  - 2023 management measures; 2023 recreational chinook measures.
  - Mass Marking/Mark Selective Fisheries: Any new fisheries would need to be approved in the IFMP; any existing fisheries would continue unless there is a reason to stop them.
- Southern Inside Chum: 2023 planning.
  - · Fraser River Chum: Continuation of current measures.
  - Inside Southern Chum: 2023 rec fishery planning.
- · Southern Inside Coho: Lower Fraser and Strait of Georgia assessment pilots.
- New 2023 CSAF proposals.
- · 2023/24 IFMP timelines.
- DFO response to Forum 1 Action Items
  - Slide: More details re Canada's response on Quinsam and Harrison chinook for 2023.
  - Slide: More info on MM/MSF development and implementation plans.
  - Slide: Graphic overview of current and additional monitoring to support MM/MSFs.
  - Slide: More info on S<sub>MSY</sub> and other benchmarks

#### Discussion

If we're trying to manage impacts, fisheries with additional impacts like the proposed MSF
pilots should be rejected. The Minister can't have a \$600M program to reduce impacts on
wild fish while permitting new fisheries with new impacts. These fisheries are not doing
anything to support the primary goals of more fish for conservation and First Nations

fisheries. We're not saying No to MSFs, but we are outlining all the things that need to be in place first to conduct these fisheries safely. There is too much rush to do this quickly instead of doing it the smart way.

- At the recent FSMC AGM, we discussed management of Chinook Summer 52s, and most
  delegates supported reducing impacts to ~10% (1 or 2 people supported 5%). It's very rare
  to find consensus at a Forum this large but FSMC is a mandated body. We need to meet
  more often for FSMC to fulfill its mandate. US tribes see the MSFs there as a big concern.
- MSF consultation process is very challenging, and it's about more than the short timeline. It's unclear how this consultation is linked to the IFMP and what happens to our feedback. This is actually about an amendment to the current IFMP. We already provided feedback on the current IFMP, so it's frustrating and places a significant unnecessary burden on technical staff to have to respond again. This is a terrible consultative process. The consultative deck for these proposals doesn't provide enough technical detail/analysis to allow us to understand these fisheries. Until DFO provides more in-depth technical analysis on the impacts of these fisheries, we can't respond. DFO keeps asking us to consult on chinook issues in the spring, when we've already given input on the current IFMP. We have a bunch of questions that we will share but there is concern that this will just move forward without answering any of those questions.
- Senior DFO managers need to come clean that the only ones benefiting from these mixed stock fisheries are the sport sector. We are here to protect the fish for seven generations and we need to see transformative change to achieve that.
- We've been asked to mark our hatchery fish in the Upper Fraser but the science suggests that marking only benefits fisheries, not conservation. If there are fishable surpluses for the rec fishery down south, then we should be able to access those fish because we are not getting our food allocations. We keep letting this go, but it's getting harder and harder to tell our people we have no food fish and yet we have recreational openings. This year we're getting more pressure, so we really need to nail down the priority fishery.
- FSMB asked for a placeholder to allow time to review fishery impacts in-season. The
  premise was that all fisheries would be reviewed and evaluated moving forward, but DFO
  has brought forward these proposals via a separate external consultation process, which
  does not respect the FSCMA, so FSMC is discussing advice on this. There is a troubling
  issue of transparency here.
- DFO: Good discussion here, and staff are paying close attention; the points made are fair. As part of PSSI, we were given additional funding and asked to explore MM/MSF as a tool to support management. There is strong interest in demonstrating results quickly, which has caused some challenges. We asked the question of whether we could test potential pilots while continuing to work on the long-term framework. DFO is committed to continuing to work with FNs on the longer-term technical work. There is very strong interest in advice to the minister on areas where we might allow new pilots or allow others to continue, or not. Re the timing of the info, it's also in the draft IFMP that there is potential to use MSFs in Juan de Fuca, for example, to limit current access to hatchery fish only. Also for Quinsam and Harrison chinook, MSF might be a tool that can be used where there are currently impacts on both wild and hatchery fish. DFO has worked closely with the JTC to review fishery

impacts, including in pilot MSFs, so that info will be important in informing staff recommendations.

- Support earlier comments. The DFO presentation noted a commitment to including indigenous knowledge but that's not happening. DFO should look at First Nations' foundational principles about protecting wild fish, avoiding impacts when returns are low, and not playing with them. We can't continue with the approach that DFO staff are just here to deliver a message. First Nations walked away from the CSPI because it was just about evaluating rec opportunities. Once again, we are being asked to burn our staff's limited resources to support fisheries that take fish away from First Nations fisheries. No one from DFO is responding to us to say that you are here to help ensure we can get fish to our people.
- It's been very frustrating being part of the FSMB I hear the concerns about the lack of data. But we don't need technical data to know these fisheries will impact wild stocks. We're tying to come up with collaborative options for everyone, but there are simply not enough fish to go around, so the rec sector will need to bear the burden of conservation. We are literally fighting over the last fish now. We won't entirely shut down the rec fishery but we need to better manage it.
- MSF is not an effective tool to gather data. If you need solid data, establish a proper test fishery with PSC funding.
- Why is there a new standard for commercial fishery monitoring but not rec? We have not
  heard anything locally about managing Quinsam chinook. We have been clear that DFO
  needs our permission for any fisheries in our territory. We are involved in a reconciliation
  process, so how do all these other processes fit into that?
  - DFO: PSSI is providing resources to improve monitoring for all fisheries. For 2023, there would be enhanced monitoring to address bycatch in potential pink fisheries.
- How would MSFs benefit my people and provide more food for First Nations?
  - DFO: MSF might be of interest to First Nations in terminal areas where there may be new opportunities to retain hatchery fish only — e.g. WCVI, ECVI, Chilliwack hatchery chinook. We want to explore those as we review long-term plans for hatchery production and marking.

### FSMB Panel: 2023 Fraser Chinook Management

Marcel Shepert, FSMB Independent Chair; Pat Matthew, FSMB; Jeff Grout, FSMB; Les Jantz, JTC co-chair; Mike Staley, JTC co-chair.

- Marcel reviewed FSMB's Feb 10 enabling motion outlining an approach to develop 2023 fishery management advice for Fraser Chinook.
- Les reviewed the technical work being done by this committee to support 2023 management decisions. A key tool is the rec fishery impact assessment (which only covers impacts in Southern BC fisheries, not Northern BC fishery impacts). Proposed reductions for 2023 may require reductions not just in rec fisheries but also for FSC.
- Marcel explained the approach to iteratively developing a mandate for FSMB's FSMC reps to develop management advice for Fraser salmon.

- Mike added that JTC has been working on potential scenarios to achieve the proposed reduced impacts for Chinook Summer 52s, and work so far indicates a surprising degree of reductions will be required to achieve impacts within the proposed 10% range.
- DFO has increased restrictions on rec fishery impacts in recent years, which explains why
  further reductions will be increasingly difficult.

#### **Discussion**

- We have asked and been told by DFO that rec fisheries impact Fraser chinook but they
  could not tell us how many. DFO proposed size limits to reduce impacts. When we discuss
  changes, communities not involved here should also receive the information.
- Commend FSMB. This is a ground breaking step in the right direction.
- It's a new way of doing business. In the past DFO would go away and do their analysis and report on it, but now we have a JTC that is doing that work together. It's a huge step forward for First Nations to be involved at that level. This is leading us on a road towards reconciliation. We're testing the new approach with Fraser Chinook, with both parties gathering their information and brining it back to the board for a collaborative final decision. We haven't yet worked out next steps of what to do with the information, but all signatories have a role in reviewing it now. It's new and we're still working out the decision-flow process, for example how to yet management proposals through the Sparrow lens.
- DFO's work on considering the recommendation includes wording for the draft IFMP, so we can discuss what's proposed with non-FSMC members and stakeholder groups.
- A further step to consider is for DFO to use FSMB to meet jointly with stakeholders and others to discuss management proposals.
  - · Suggest also reaching out via SFAB's Reconciliation committee.

### DFO: Draft 2023 IFMP | Fraser Sockeye & Pink

Colin Schwindt, DFO

DFO presentation highlights included:

- · Preliminary Fraser Sockeye & pink forecast recap.
- · Escapement planning inputs.
  - Table of historical management reference points: fairly consistent, more conservative management since 2019.
- · Draft sockeye escapement options: Option 2 is more precautionary.
- Draft escapement options: comparison of implications, including allowed harvest under p10, p25, p50 and p75 run sizes. Small harvests possible for Early Summers and Summers only, if actual returns achieve the p75 or higher levels.
- Comparison of projected escapements for individual stocks relative to historical and cycle averages.
- · Draft sockeye escapement option summary.

 Draft Pink escapement option: FSC harvest expected at all run sizes; constraints from comigrating stocks of concern.

#### Discussion

- What modelling was done on future implications of the 2 escapement options?
  - DFO: The FRISSI model is not used to evaluate proposed escapement options.
     Lower TAM (Total Allowable Mortality) caps in the more conservative option lowers the upper reference point (i.e. maximum harvest level).
  - I'm trying to reconcile this info with the updated productivity and the tradeoffs between catch and escapement in these options, so that we can evaluate tradeoffs between more harvest and more escapement. We're sliding the reference points up and down, but without any information about what these choices imply for the future.
  - DFO: The recent lowered productivity was considered in the forecasts, but it hasn't been used in projecting into the future.
  - I'm concerned that the necessary homework isn't being done on an annual basis as
    we try to choose between these escapement plan options. These background
    analytical discussions need to happen at the JTWG instead of having them here.
    There is a lot of background work that should go into developing these management
    options and I'm concerned that a lot of the background work is slipping.
  - DFO: Groups can also propose additional options.
  - · It's very difficult to make a choice based on the information provided.
  - It also supports the argument for more budget for JTC to support the work needed.
  - · We're also talking about the brood year with major Big Bar impacts for some stocks.
  - DFO: A number of stocks (Bowron, Taseko, Cultus) will need to be considered.
     Fraser Panel will also need to consider environmental conditions in season.
- Concern about US impacts on sockeye when they fish for pinks they use sockeye nets for pink fisheries and that will impact our sockeye.
  - DFO: Canada will continue to push for similar measures in US fisheries (i.e. non-retention), if there is non-retention in Canadian fisheries. The challenge will be if there is enough sockeye to permit some retention.

#### 2023 Management Questions & Considerations

- DFO is seeking feedback on measures including proposed window closures.
- Key considerations and questions: Weak stock constraints, early returning pinks, additional measures required, potential terminal opportunities.
- In season circumstances to be considered.
- Implications of early pink timing (more overlap with Fraser sockeye).

### **Day 3 | Tier 2**

### Welcome, Recap of Tier 1

Marcel gave a recap of the Day 2 Tier 1, noting high frustration, with a sense of futility and weariness with the Forum and JTWG processes. Other key points:

- · Forum renewal: include JTWG reps in that work
- Future JTWG: Possible MoU between AAROMs to host a future, strengthened JTWG that works year-round; funding for AAROM collaboration available.
- JTC/JTWG memo clarifying roles is in the <u>agenda package</u>. Need to clarify protocols for JTC to share their work more widely.
- Forum planning: Suggestion to have non-FSMC/DFO reps support agenda planning.
- JTWG wants access to more background technical info from DFO so they can dig into what's behind DFO's Forum presentations.
- Need to get the Forum out of its rut proposed Visions conference; questions about what's
  in scope and what to do with out-of-scope topics. Bigger questions of how to reform IFMP,
  PST, implement UNDRIP.

Marcel invited an ad hoc JTWG sub-group that met the previous evening to share the list of proposed topics for the April JTWG

# JTWG ad hoc group: Info needs for April JTWG/Forum Sockeye

- · Potential use/distribution of LAER.
- Look at fisheries we know will occur and explore scenarios for sharing LAER in no-TAC scenario
- Explore window closure scenarios and implications. With fisheries like dry rack, for example, we need more attention to potential savings for stocks in the Lower River to inform decisions.
- FRSSI and TAM rules: ongoing discussion about FRSSI JTWG reps want more
  discussion about sliding the reference points and future implications of doing so.
- Potential terminal fisheries: more details of forecast vs benchmarks for specific stocks for those terminal areas.
- More in-depth review of forecast considerations, by stock. We need more detail than "highly uncertain," so break that down.

#### Coho

Request more info on the coho assessment fishery inside Georgia Strait: objectives, results.

#### Chinook

MSF consultation deck — reference to assumed FSC retention: more details about metrics
etc underlying that assumption, including relative to achieving FSC targets.

- Interest in terminal opportunities using Albion for in-season decisions; more info to better understand how chinook will be managed in season.
- Summer 52 reduction towards 10%: JTWG wants to look at scenarios for fisheries to be
  planned to meet that. JTC is working on that, but desire for broader discussion with JTWG.
- ACTION: JTC info sharing with JTWG to be included in March 15 FSMB agenda.

#### **Discussion**

- DFO has no objections to JTC sharing the requested info with JTWG.
  - Caution that potential scenarios could be taken out of context if they were made public. Would prefer to discuss those with the Board before sharing more widely.
  - So JTC can share data but not scenarios until FSMB vets those March 15.
- AGENDA: Request for formal JTC presentation to Forum in Victoria, at least for Tier 1.
- Suggest need for full morning for Tier 1 FORUM 3 AGENDA
- JTWG will need more than 1 day maybe 1 day immediately before, 1 day earlier. JTWG Co-chairs to plan expanded meeting to prep for Victoria. ACTION
- VI nations want to know when is the earliest opportunity to catch food fish and also when it
  would be closed.
  - Fisheries closed in-river; in marine, rec is non-retention until TAC is identified.
  - · VI: All fisheries should be closed.

### **DFO: What We Heard**

Mike Hawkshaw, Linda Stevens, DFO

DFO presentation highlights:

1. State of the Salmon: Key discussion points: Is this info of value for future Forums?

#### Discussion

- Yes: it helps us understand recent events and informs future planning. If we just keep
  allowing the minimum escapement to support fisheries, is that the right approach? We need
  to look further ahead.
  - Agree it's good info to share.
  - More appropriate for January Forum FORUM AGENDA
- 2. Fraser sockeye & pink forecast, escapement planning: Key discussion points.
  - Next steps: DFO to add FN observers & Fraser Panel Tech Committee members to author group when developing forecast technical report.
    - Need to provide more technical analysis to evaluate escapement options.
    - DFO to share 2023 forecast report ASAP ACTION

#### Discussion

 Q/A: FN have previously been involved in the above review so DFO does not expect obstacles to sharing.

- · The gap was really just this year.
- 3. IFR Coho: Key points.
  - Next steps: DFO to share 2022 escapement & marine survival info mid-March.

#### **Discussion**

- Q/A: Once the 2022 info is received, DFO will review whether there is a need to start
  planning in 2023 for potential fisheries in 2024 and if so how to engage JTWG in developing
  the planning approach. FSMB should also consider this in its 2023/24 work plan.
  - A key question once coho fisheries resume, is how to ensure FSC access is prioritized.
- It worries and frustrates me that DFO still sits on one side, and First Nations on the other and that DFO still thinks they own the fish. DFO does not permit us to use gillnets upriver and this concerns me, especially after hearing about recreational fisheries when I haven't had a fish in 10 years. There are no young people here. This is such an archaic process that it make me wonder about opening this up to new generations. Not enough information is reaching grassroots people. We're just sitting on the banks begging for a salmon. It's not about you or me, it's about the salmon and we all need to get back to the salmon let them hit the spawning grounds. Does DFO really understand what's going on with all the science? DFO needs to start looking at logging and mining. We're really just talking about money. You guys better come together and stop fighting about the salmon. You've taken my culture away from me, literally. It makes me sad and angry when First Nations have to fight for information. We're starving for salmon and we're still being too nice about it.

#### 4. Steelhead management actions: Key points

- Next steps: FSMC to reach out to the Province, DFO to support as needed.
- DFO will share info on SARA listing and provide info on rec fishery steelhead encounters at April Forum. ACTION

- Provincial report highlighted pinniped predation how do we revive the tripartite discussions with the Province?
  - Jeff Grout will meet with BC counterpart (Jen Davis) and report at April Forum.
     AGENDA
- LFFA request for summary of savings from management actions in Lr Fraser fisheries after steelhead window closure ends. Atlegay request for similar review of savings from restrictions. Not just savings, technical info supporting closure. ACTION
- 5. Fraser Chinook: Key discussion points.
- Next steps: Proposed changes for Fraser chinook and Quinsam Harrsion will be included in draft IFMP for discussion; further technical analysis includes JTC/FSMB work
- · Quinsam discussions should be with the Quinsam/Campbell River Salmon Committee
- 6. Chinook MSFs: Discussion points.
- Next steps: DFO to provide analysis of MSF proposals from previous years, consider meeting with SFAB, FN involvement in ongoing MSF framework development.

Key point is no MSFs until the required technical info is there.

#### Discussion

 A letter from the FSMC President formally summarizing the concerns was handed to DFO reps.

#### 7. General Comments

- DFO heard overall concerns that MSF consultation is not adequate, sense that DFO is just checking boxes.
- Also the desire to get back to more meaningful role for JTWG, start discussing UNDRIP implementation.
- DFO suggestion to more clearly ID in presentations whether they are for information, whether consultation or whether decisions are required.

#### Discussion

- Support for DFO suggestion to flag whether presentations are for information only or require a response.
- DFO's What We Heard does not fully capture the feedback shared, especially re MSFs.
  - Noted that the Forum Minutes capture additional detail, which is also formal feedback for DFO to consider. ACTION
- JTWG has outlined immediate steps to address April info needed; Forum renewal will need to address longer term JTWG reforms.
  - JTWG reps want to be part of forum renewal discussion. ACTION

### **UFFCA: WQQ Update**

Rebecca Broadbent, UFFCA

UFFCA presentation highlights included:

- Program launched 7 years ago and has grown to become one of the largest in BC.
- · Overview of program components.
- Water data collected/monitored.
- Annual site maintenance; trouble shooting damage to monitoring stations.
- Staff training; consultant project support; peer to peer training; collaboration with TNG Rangers.
- 2021 funding for new stations providing real-time data on water levels and temperature (solar power batteries, data satellite uplinks).
- Applications: Example real-time data informs Endako River chinook hatchery fry releases.
- Data software: moving to our own data management (data sovereignty.)

#### Discussion

Q/A: UFFCA is building a web portal to share the data. There will be a section that DFO can
access.

- The work is cutting edge: UFFCA has 21 stations and the Province just handed over 3 of their stations for the program to operate.)
- Nice work, Rebecca and UFFCA and LFFA wants to connect to discuss similar work.
   ACTION: Marcel to connect Rebecca and Murray.

### Takla Lake Lands and Stewardship

Cory Williamson & Keith West, Takla

Takla Lake presentation highlights included:

- Importance of taking a broader approach to this work that includes cultural, social values.
- Been working for 3 years on a Salmon Recovery Strategy: key challenges included learning how to include Takla traditional knowledge, values and cultural perspectives along with my western science background.
  - Evolving thinking: What are the key indicators for Takla that I can translate into western science — key indicators under the Takla Vision.
  - Current work priorities for Takla and others to undertake.
- Takla Nation conservation enhancement: Hatchery vision of restoring Early Stuart sockeye. Also future potential to restore 2 missing Chinook Spring 52 populations.
- Natal collection pilot 2022. Not just about collecting eggs, etc but includes engaging
  young indigenous people in this work, along with DFO and hatchery staff.
- Takla hatchery 2022/23: Juveniles ready for release this spring, but 2023 returns will be very poor due to Big Bar.
- · Hatchery hygiene practices and training building capacity.
  - · Value for community members who get involved, plus the value they add in return.
  - Student/community involvement: recent COVID restrictions, but expanding opportunities for community participation.
- Takla Spring 52 chinook pilot: have not been observed for 30 years (unique to Sakineche and Driftwood) despite good remaining habitat.
- Takla Lake health, productivity & water quality: goal is to understand lake health and limitations to early growth and survival; working with Nechako Watershed Roundtable; BCSRIF proposal for 3-year study.
  - Takla/Trembleur Limnology: chemistry, zooplankton, temperature profile, water quality; foundational work including developing local capacity.
  - Source stream monitoring: monitoring water quality factors; baselines, Guardians program; Takla portal.
  - Habitat-Fish Passage: Sitlika Creek restoration partnership with CN and BC Wildlife Federation — plan to release some hatchery sockeye in 2023.

#### Discussion

· An important aspect of this project is how it has brought people and communities together.

- · Adams Lake is also doing lake enrichment.
- These kinds of mitigation measures are what we want to pursue in our community.
- Q/A: For the Chinook piece, the technical part is easy but the more challenging aspect is the political decisions, so that support is needed to be able to do this.

### **Closing remarks**

Marcel thanked all presenters, participants and FSMC staff for their work organizing and hosting the Forum.

Adjourned: 12 noon

### Appendix 1: Summary of Action Items

(Note: DFO's What We Heard and Action Tracker will capture additional "next steps" as well as the following specific actions).

- Forum process: All PPTs and agenda docs for 2023 Forums to be shared online at: https://frasersalmon.ca/2023-forum/
  - Forum planners to share a summary of key discussion points from previous Forum as part of agenda packages.
  - Include JTC/JTWG memo in future Forum Agenda packages on the FSMC Website.
  - JTWG Co-chairs to plan expanded meeting to prep for Victoria Forum/review list of info requested by JTWG reps.
  - · JTWG reps to be included in Forum Renewal discussions.
  - DFO to flag whether presentations are for information only or require a response.
- Fraser chinook: Protocols/permission for JTC info sharing with JTWG to be on March 15 FSMB agenda.
  - Request for formal JTC presentation re their Chinook work to Forum in Victoria, at least for Tier 1.
  - Quinsam discussions should be with the Quinsam/Campbell River Salmon Committee
  - · DFO to provide analysis of MSF proposals from previous years.
  - DFO to consider additional details of concerns about MSFs beyond what was captured in "What We Heard" — i.e. as documented in Forum 2 minutes.
- Fraser sockeye/pink: DFO to ensure First Nations technical reps have access to forecast.
  - Suggestion to establish internal DFO process to ensure such info is shared in a timely/transparent manner to support FN technical staff.
  - DFO to add FN observers & Fraser Panel Tech Committee members to author group when developing forecast technical report.
  - DFO to provide JTWG reps with more technical analysis to evaluate escapement options
  - DFO to share 2023 Fraser sockeye & pink forecast report ASAP.
- IFR Coho: DFO to share 2022 escapement & marine survival info mid-March.
- · Steelhead: FSMC to reach out to the Province, DFO to support as needed.
  - DFO will share info on SARA listing and provide info on rec fishery steelhead encounters at April Forum.
  - Requests for a summary of actions taken under the Steelhead Action Plan.
  - Jeff Grout will meet with BC counterpart (Jen Davis) and report at April Forum.
  - LFFA request for summary of savings from management actions in Lr Fraser fisheries after steelhead window closure ends. Atlegay request for similar review of savings from restrictions. Not just savings, technical info supporting closure.

 Indigenous showcase - Water quality monitoring: Marcel to connect Murray and Rebeccas to support UFFCA & LFFA connection to discuss similar work.

### **Appendix 2: Slido Q&A Results**

1. For you, what are the highlights/lowlights of the Forum 2 Agenda? Anything missing or anything we could have skipped, from your perspective?

#### Process/format:

- · Good to see Tier 1 alternating with Tier 2.
- Good to see the agenda toggle back from Tier 1 to Tier 2. A better format than hearing from DFO and then they vacate for the rest of the Forum.
- Looks pretty good. I like the Tier 1 at start of day one and at end of day 2.
- · When possible it's good to have everyone in person.
- I would like to see a return to full in-person participation. For those dialing in, I think it should be to observe only.
- The Forum agenda is generally good but still remains an ad hoc advisory and stakeholder process for DFO to tick the consultation box for the IFMP Tier 3 and 2 engagements. Maybe we can ask DFO when they are ready for UNDRIP so we can design and implement a government to government salmon management process along with FSMC? If they aren't ready then nothing will change in their management approach to protect the salmon and priority access for FNs.
- Need to use the Action Table as Forum topics; still don't think that is happening.
- The forum agenda was not distributed in a timely manner.

#### Topics

- Community needs lost trying to convert messages from traditional knowledge to dfo dialog.
   Maybe not a forum topic. But not having food has to create urgency.
- Typically January/February of any given year has post-season data that is mostly available. For future planning, looking at the previous year may give information (at least operationally) to the next year. "what was heard" is not always "what was said" and is summarized and condensed from many media such as surveys, meetings, and feedback options on websites. the SC IFMP is flirting with 700 pages in scope. Is there a better process for design, development, and implementation?
- At Forum number 1 in Richmond BC, DFO had announced more SEP building around hatcheries. No current updates on these plans and where these facilities will be built or upgraded and where. This will fall under the mass marking program DFO wants to implement.
- Chinook Management Presentation was to the point, a bit fast presented but did key in the highlights. Best part was the discussion time we had together; we need more of that at Forum.
  - Giving only 9:15-10:30 for 8 topics under Fraser Chinook Planning is not enough.
     This should given at least 1/2 a day if not more. This topic is a massive priority and

with last Forum having MSF not even mentioned, then we only get 90 minutes to discuss all that; it's disrespectful.

- The State of the Salmon presentation provided a good perspective on what is occurring in both fresh and marine waters. Thanks Sue! We can have good habitat in terminal waters for returning salmon but if the ocean doesn't provide enough food for them to survive we can't expect them to return in good health. Conversely, if we have poor unhealthy habitat the salmon can't be expected to survive outmigration and/or spawning after they have spent their years in the marine waters. Climate change is real and we need to protect the fish as best as we can through out their migratory routes.
  - · Really enjoyed the state of the salmon Pres.
  - think the state of the salmon is useful, but each individual has to try and determine
    what the implications to salmon for their area are based on the environmental
    conditions that the presenter provides for freshwater and marine areas. A person
    could use the information to inform fisheries management in terms of precautions to
    take on fishing plans
  - State of the salmon doesn't seem to be helpful or taken into consideration; not sure why we need it.
- Improved JTWG technical Tier One update with an actual presentations with technical advice. Getting just a "what we talked about" isn't helpful for understanding and discussion.
- 2. In the past, this was described as a Forum for Conservation and Harvest Planning. Should the Forum's future role address:

Annual fishery Planning: 50%

Conservation & rebuilding: 38&

Other management policy issues: 13%

All the above: 63%

### **Appendix 3: Acronyms & Definitions**

AABM Aggregate Abundance-Based Management

AAROM Aboriginal Aquatic Resource and Oceans Management

AFS Aboriginal Fisheries Strategy

ATP Allocation Transfer Program

BBL Big Bar Landslide

BCSRIF BC Salmon Restoration & Innovation Fund

CTAC Canadian Total Allowable Catch

COSEWIC Committee for the Status of Endangered Wildlife in Canada

CPUE Catch Per Unit Effort

CRRI Chinook Rebuilding & Recovery Initiative

CSAF Commercial Salmon Allocation Framework (i.e. demo fisheries)

CSAS The Canadian Science Advisory Secretariat

CSAB Commercial Salmon Advisory Board

CU Conservation Unit

CWT Coded Wire Tag

DBE Difference between Estimates

ECVI East Coast Vancouver Fraser

ER Exploitation Rate

ESSR Excess Salmon to Spawning Requirements

FNFC First Nations Fishery Council

FRAM Fisheries Regulation Assessment Model

FRIM Fisheries Related Incidental Mortality

FMI Chinook Fisheries Mortality Index

FRP Fraser River Panel

FSC Food, Social and Ceremonial

FSMB Fraser Salmon Management Board

FSMC Fraser Salmon Management Council

FSCMA or CMA - Fraser Salmon Collaborative Management Agreement

IC Incident Command, FSMB's Independent Chair

IFMP Integrated Fisheries Management Plan

IFR Interior Fraser River

IHPC Integrated Harvest Planning Committee IMAWG Island Marine Aquatic Working Group

IRMA Indigenous Resource Management Agency (e.g. AAROMs)

ISBM Individual Stock-Based Management

ITQ Individual Transfer Quota

JDF Juan de Fuca

JTC Joint Technical Committee (FSMB)

JTWG Joint Technical Working Group (Forum)

LAER Low Abundance Exploitation Rates

LFFA Lower Fraser Fisheries Alliance

LRP Lower Reference Point

MA Management Adjustment

MM Mass Marking

MSF Mark Selective Fishery

MSY Maximum Sustainable Yield

MU Management Unit

PICFI Pacific Integrated Commercial Fisheries Initiative

PSC Pacific Salmon Commission (www.psc.org)

PSSI Pacific Salmon Strategic Initiative

PST Pacific Salmon Treaty

RPA Recovery Potential Assessment

SAP Salmon Allocation Policy

SARA Species at Risk Act

SEF PST's Southern Endowment Fund

SEP Salmonid Enhancement Program

SFAB Sport Fishing Advisory Board

SMU Stock Management Unit

SoG Strait of Georgia

TAC Total Allowable Catch

TAM Total Allowable Mortality

UFFCA Upper Fraser Fisheries Conservation Alliance

WCVI West Coast Vancouver Island

WSP Wild Salmon Policy

# Appendix 4: Forum #2 feedback for Planning Committee

#### April Victoria Forum Agenda Suggestions

Full morning for Tier 1 on Day 1 (to review extensive info from 2 days of JTWG meetings)

Formal JTC presentation on Chinook planning to Forum - can be Tier 2 or FSMC side formally reporting to Tier 1 (Sonora) — See also Slido comment below. Mike can add more re the challenges of actually doing this overnight if JTWG is the day before — which it has to be if they want to meet in person! I can help them throw some bullet point slides together and allowing more time for JTWG reps to discuss each one in Tier 1 may be the realistic compromise...

**IMAWG presentation to Tier 1** re their work on MSFs (Sonora — this was from Day 1, not sure if still interest in this following subsequent discussion + MAWG shared their report) Perhaps build on the theme from Forum 2 with by including a standard slot for local FN to showcase their work in each Forum. Great way to support FN technical leadership, mentoring/knowledge exchange & networking.

**Fraser Panel Update** should be part of Forum Agendas (ask Ken to expand on this — it's come up before)

**Steelhead:** Jeff Grout to report on meeting with BC, interest in reviving tripartite process. Also requests for a summary of actions taken under the Steelhead Action Plan, SARA listing update,

summary of rec fishery steelhead encounters, pinniped predation & management questions from Aidan & Tony

Other suggestions from Forum 1: DFO asked if there was interest in these for April (no discussion or response)

- Rec fishery regulatory framework? (This came up in Forum 1 with questions about whether DFO could introduce effort controls such as area-based licensing or licence quotas like in hunting. Timing is good because DFO is reviewing the rec regulatory framework as part of PSSI, e.g. considering special licensing for commercial guides)
- David Patterson update on radio telemetry work, with a focus on fish passage issues. Also
  work needed to address other fish passage "choke points." e.g. downstream of Hells Gate?

#### JTWG info needs for Victoria Forum

For Mike/Maddie (for JTWG planning, plus how will this inform Forum agenda)

#### Sockeye

- · Potential use/distribution of LAER.
- Look at fisheries we know will occur and explore scenarios for sharing LAER in no-TAC scenario
- Explore window closure scenarios and implications. With fisheries like dry rack, for example, we need more attention to potential savings for stocks in the Lower River to inform decisions.
- FRSSI and TAM rules: ongoing discussion about FRSSI JTWG reps want more discussion about sliding the reference points and future implications of doing so.
- Potential terminal fisheries: more details of forecast vs benchmarks for specific stocks for those terminal areas.
- More in-depth review of forecast considerations, by stock. We need more detail than "highly uncertain," so break that down.

#### Coho

· Request more info on the coho assessment fishery inside Georgia Strait: objectives, results.

#### Chinook

- MSF consultation deck reference to assumed FSC retention: more details about metrics
  etc underlying that assumption, including relative to achieving FSC targets.
- Interest in terminal opportunities using Albion for in-season decisions; more info to better understand how chinook will be managed in season.
- Summer 52 reduction towards 10%: JTWG wants to look at scenarios for fisheries to be planned to meet that. JTC is working on that, but desire for broader discussion with JTWG.

#### Future agendas/Agenda Planning

State of the Salmon - Support to do this annual at Forum #1.

#### Commented [1]:

LFFA request for summary of savings from management actions in Lr Fraser fisheries after steelhead window closure ends. Atlegay request for similar review of savings from restrictions. Not just savings, technical info supporting closure.

- Suggestion that non-JTC/FSMC members of the JTWG and Forum provide advice on Forum agendas (important external perspective about information gaps and priorities).
- Forum agendas, presentations and other agenda docs to be shared via https://frasersalmon.ca/2023-forum/
  - FSMC will include link on all Forum notices, agendas, etc and docs will be added/updated at that site as available.
- Include JTC/JTWG memo in future Forum Agenda packages (document is a draft and will be updated to reflect proposed reforms).

#### Forum Reform

- Support for a Vision conference/reset to review Forum purpose, approach, format & expectations.
- DFO presentations Support for flagging whether they are for information, consultation and clarity around decisions/feedback expected.
- Strong interest among non-JTC JTWG members to be part of Forum/JTWG renewal dialogue.
  - Suggestions for strengthened, year-round role for JTWG agreement that it plays a
    valuable role & should continue separate from JTC but desire for more
    collaboration/communication with JTC. FSMB needs to discuss and clarify what info
    JTC can/not share with JTWG.
  - Potential for MoU between the AAROMs to host the JTWG (potential DFO funding for AAROM collaboration).
- Question of what to do about out of scope issues like jet boats: suggestion to add parking lot to action tracker; JTWG may have a role in advising where to refer or how to resolve such questions.