To:	**WEI Technical Working Group members**
From:	Jayson Kurtz and Kirsten Lyle
Date:	March 30, 2022
Re:	**Summary of TWG meeting held Wednesday, March 30, 2022, 9:00 am to 12:00 pm**

Attendees:

- Rahul Ray (EDI)
- Jayson Kurtz (Ecofish)
- Jennifer Carter (Ecofish)
- Adam Lewis (Ecofish)
- Katie Healey (Ecofish)
- Kirsten Lyle (Ecofish)
- Wayne Salewski (Nechako Environment and Water Stewardship Society)
- Duncan McColl (FLNRORD)
- Dan Sneep (DFO)
- Andy Lecuyer (RTA)

Meeting Objective: We will discuss the attached Kemano fish entrainment memo and complete a review of the scoping status of all issues

Agenda:

- Review Kemano Entrainment memo
- Review issues scoping, technical memo, and PM list
- Discuss bookend scenarios

Meeting summary:

New topics from TWG Members

- Salmon escapement and timing
    - Dan provided update on latest return numbers, but questions arose about timing
    - Wayne has no indication of earlier timing, but are we looking?
    - Jayson indicated this is on our radar, will be considered in technical memos, and is likely to be studied this year
- Nechako Environment and Water Stewardship Society
    - Encouraged by uptake of enhancement activities/education by community and school district

Kemano Entrainment Memo Review

- Entrainment has been ongoing for 60 years
- Desktop approach reviewing existing information
- Overview Risk Screening (developed by BC Hydro) used to evaluate risk at different levels. Final Risk Screening Rating by species:
    - Burbot: moderate
    - Kokanee: Moderate
    - Largescale Sucker: Low
    - Rainbow Trout: Moderate
- Higher risk rating at Kemano facility when compared to Skins Lake
- Data gaps exist, additional monitoring recommended to look at fish use by season, additional operational data, monitor entrainment at the intake

TWG Comments:

- Has eDNA ever been applied to an entrainment assessment to evaluate species at risk?
    - No information to suggest this has occurred
    - NEWSS is using eDNA on all side streams to assess distribution and habitat use, so eDNA may be a good idea for this application.
- Assessment assumes trash rack is completely clean, which is usually not the case. Dirty racks may lower risk as dirty racks would reduce velocity and potentially block fish access.
- Massive fires have also affected habitat around the reservoir
- Without information on the populations and trends it is difficult to say whether entrainment will have major impact on populations
    - Historical concern for province is more interested in fish that have larger fishing pressure and therefore population data aren't available
    - Focusing on more ecological questions such as this is worth highlighting and should have data collection
    - Province should think about addressing fish population data gaps
- Often offsets such as tributary enhancement are applied to offset entrainment risks
- Note that this is a large and complex reservoir, and it is unlikely that entrainment alone explains changes in fish population dynamics
- Large data gaps on reservoir including fish populations (size and trends), distribution, habitat use.
- How can TWG or MT leverage the importance of data gaps to get additional studies
    - Province to do more
    - Revised NEEF program to prioritize funding reservoir studies

<u>Issues Update: Scoping Technical</u>

- Review of Issues Summary Table

- Each Issue can have up to three deliverables: 1) technical memo (if needed); 2) performance measure sheet (if needed); and 3) Scoping report (all issues)
- Sensitivity to operations; does river flow level affect the issue? i.e. Sensitivity rating of a ”high” means direct link between water level/flow and the issue – change column h name for clarity
- Add a column to reflect time-scale response of issue to flow change (i.e., ramping is instantaneous flooding/erosion could be several years)
- Issues in the summary table that don't require a performance measure will still remain within the WEI process, even if it does not require a PM (i.e., not included in flow alternatives/structured decision making), it could be included in monitoring (e.g., Osprey Nesting Habitat)
- Performance Measures Update: Ecofish is currently looking at potential PMs at a high-level, will refine the PMs following the completion of the technical memos

Bookend Flow Alternatives:

- This is being brought forward so that the TWG would have visibility on the bookend discussion prior to presentation to the Main Table
- Next MT meeting we will be introducing bookend flow alternatives to support learning (modeling, PMs, alternatives)
- Process Team has developed bookend alternative to discuss at Main Table meeting - Draft bookend alternatives (Status Quo ←Flow Alternatives 1 - 7→ Unregulated Flow)
- Plant a seed for this group to start thinking about how/what the TWG will put forward for flow alternatives
- One extreme may be the idea of max power and an Eaton flow alternative may be useful to have in our scope as well

Other updates:

- Climate change: Awaiting update from CC researchers. Integrate CC into RT model and PMs
- No updates on Sturgeon initiative
- Consider Stoney Creek in erosion work, some residences are being eroded
- Wayne suggested 2 future actions
    - Explore eDNA for entrainment assessment
    - NEEF2 should include reservoir

Action Item: Jayson to follow up with Wayne regarding Stoney Creek

Parking Lot

None identified in this meeting

From previous meeting (Feb 11)

- importance of tributary streams that fall outside scope of RT but are related to other agencies (i.e., land use planning, agriculture, etc.)

Next Meetings

- Next TWG meeting on April 13th – agenda topics TBD
- Next MT meeting is April 6, 2022