

Nechako WEI Technical Working Group Meeting #3 December 18, 2019

Attendees:

Raul, Justus, Craig, Jayson, Jenn, Mike, Stephan, Wayne, Phillip, Dan

Review of last meeting

- Bibliography – will have updated format in new year
- TWG meetings – Jayson will update meetings shortly

Actions since last meeting:

- Jayson, Phillip and James had opportunity to fly and take similar photos on other end of hydrograph (spring runoff, July/Aug) – action item to be presented at Main Table
- Summarize flooding info, results, recommendations, data, define flood risks for various flooding events
 - o Jayson would like to define ice jam risk around PG. TWG should present MT best understanding and flooding risks of Vanderhoof area. A good start to identifying elevations, areas of flooding.
 - o Where 100-200 flood line from Cheslatta to Vanderhoof (even if its dated, show gaps)
 - o Provide info around what flows/river elevations cause flood risk at Cheslatta.
- Think about what topics do we think MT should be discussing?
- Need to adjust temp of STMP from 20 to 17 as 20 is for sockeye not chinook. Chinook function best at 17 and under. Still need to figure out where 20 came from (ongoing action item)
 - o Is the interest and species of concern still a top priority for SLS?

Meeting Minutes

- Very specific action (comments on flooding)
- Documented issue of DoV flooding – info to support will be talked about this meeting
- Did DoV provide specific info?
 - o Put out questions regarding flooding
 - o Pointed Raul to province, lots of info we can use
 - o DoV has made comments regarding technical capacity

Update from Main Table Meeting

- Explored interests regarding ice jam flooding
- Needed technical info regarding what flow contributes to ice jam flooding: reached out to three parties to gather information and bring back to TWG to support MTM to be specific and finalize interest (nothing has happened but plan in place)
- Brief performance measures and how they fit in: we express interest and concerns, with each interest we develop performance measure, something we can objectively measure, to be discussed more at next MTM

Overflight

- Jayson went on overview flight to look at watershed – has photos to present to MT
- Was able to visualize erosion concerns folks have
- Georeferenced photos, map will be created
- Picture of inundation should be posted alongside low flow pictures – so people understand the range in conditions of hydrologic cycles
- Maybe flight to get photos on other end of hydrograph (spring runoff, July/Aug) – action item to be presented at MTM

- Different photos confirm priorities, lead to ground exercise to help identify target locations and details of land use
- General awareness of team and help drive ground treading - representative plots (what sites should be targeting around performance measures)

Background info on flooding

- Ice jam flooding around PG, but also other issues around flooding
- Help develop performance measures around flooding
- What information is there, how dated/relevant, next step cover conclusions
- Wide range of information on flooding (Jenn presented summary of literature)

Other discussion

- Need to identify critical habitat for sturgeon – gap
- Need to bring in meeting to have discussions around what to do next
- Need to identify more studies regarding flooding to add to list
- Silt deposits that fill in river, what studies show what has been done to mitigate this – common techniques
 - o Flushing flows
 - In order to provide flushing flow on some systems you would flood people out, the benefits of these flows are unknown, not a straightforward fix
 - o How does sediment deposition change overtime, how is it building up, where is it building up?
 - o What have these studies concluded, what is the problem?
- Salmon spawning habitats on Nechako – generally know quite well, need to know pros and cons of flooding effects on salmon spawning
- Often see trade offs when performance measures are achieved
- Flood timing, severity, and frequency have effect on gravel composition. Generally, loss of gravel fine materials
 - o Maybe manually place gravel rather than flushing flow
 - o Impounding sediment?
 - o Combination of solutions to solve conflicting problems
- Need to look at research done elsewhere
- Flood frequency analysis done on the Peace
- Should we dig deeper in flooding issue? summarize flooding conclusions, identify data gaps, identify and recommend studies and research and other sources of information that the TWG would want to support the MT, identify questions the MT will be asked. How to get us working as TWG and ensure we can support MT?
 - o Number of studies should summarize key results and recommendations for MT
 - o Has been discussion with DoV regarding flooding mitigation
 - o Will be lots of issues in conflict with flood protection – understanding flood protection will be important to answer questions around this. Wise to fully understand as much as we can about flooding
 - What is being done on provincial level, city level
 - Need to define what elevation a certain level of flooding occurs
 - o Looking at conflicting issues related to flooding and bringing those to MT. Identify solutions for each issue and where they overlap
 - i.e., flood protection versus sturgeon habitat and spawning gravel

- MT seems overwhelmed and hard time getting traction moving forward – maybe TWG should nudge MT but also don't want to overstep boundaries
 - May have role to urge process forward, but delicate
- Maybe give list of issues that typically come up to MT and provide performance measures, might help move things forward
- People agree proactive approach to bring info to MT
 - Jayson would like to define ice jam risk around PG. TWG should present MT best understanding and flooding risks of Vanderhoof area. A good start to identifying elevations, areas of flooding.
 - Where 100/200 flood line from Cheslatta to Vanderhoof (even if its dated, show gaps)
 - Provide info around what flows/river elevations cause flood risk from Cheslatta area
 - Ecofish to review results and recommendations, can we actively define flood risks for various flooding events
 - Philip is concerned it's a ton of effort, Jayson believes this is reasonable work and that they will need this information
 - Need to adjust temp of STMP from 20 to 17 as 20 is for sockeye not chinook. Chinook function best at 17 and under. Still need to figure out where 20 came from (ongoing action item)
 - Need to figure out what is reasonable for RT, how should RT adjust operations based on things that are important