

TWG Meeting #8 Notes for TWG meeting April 29 2020

Attendees

- Sydney
- Justus
- Henry
- Dan
- James
- Kevin
- Kim
- Phillip
- Wayne
- Stephan
- Rahul
- Jayson
- Jen

Discussion from participants on sturgeon presentation:

Sydney

- Nothing to add

Henry

- Finds research fascinating
- There is a clear understanding that sturgeon need a clean riverbed to spawn and needs to be clean for a long time so populations can survive
- Feels we need to move on with flow initiative to provide what sturgeon need
 - Made a work plan for MT and would like the group to discuss
 - Feel we should move into flow research since we already know that they need clean gravel to be delivered by the river
 - Rahul to email work plan to everyone
- Salmon can clean gravel mechanically and sturgeon cannot, therefore, river needs to provide that gravel
 - Therefore, flow needs to be assessed to determine how the river can provide clean gravel

Stephen Dery

- Research is pertinent to water temperature
- Looking at historical flows before dam
 - Need to consider changes from dam, climate change, and water management
- Is white sturgeon also sensitive to changes to WT similar to salmon
 - Wayne said studies were done to evaluate temperature on incubation and survival, but doesn't know result
 - Dan confirms all fish have temperature tolerances

James Jacklin

- Following the presentation talking about substrate quality
 - o Can we determine range of flow options that would benefit sturgeon and understand and consider magnitude?
 - o Can we look at range of flow options that look at river support, gravel cleaning support, etc.?
 - How can we build uncertainty into process?
- How do we leverage expertise between TWG and MT folks?
- Confirmed there still is work involving dive crews cleaning gravel

Kevin Moutray

- A lot of room in flows associated with property damage to look at flow options for cleaning gravel

Kim Menounos

- Long term sustainability of program is impressive
- Looking forward to talking about long term restoration potential

Phillip Krauskopf

- Not sure what ideal hydrograph should look like for sturgeon at this time
- Scope should look at modifying hydrograph
- Understands initiative will take years and there will be future modifications to hydrograph
 - o How do we adapt our process to deal with this?

Dan Sneep

- Not at last meeting but a former member and review presentation
- A lot of change and uncertainties exist but new thought and research around larval drift and improved understanding
- Underlying habitat issues and using hatchery as a way to not lose population
- Need a flow regime to maintain suitable substrate and physical works
- Highlights it's a long term process to achieve results and continue to adjust operations
 - o Recommend company do physical works
 - o Flow regime is not only thing that needs to happen
 - o Need physical cleaning of substrate and maintain it
- DFO is in it for long haul

Wayne

- been involved for 40 yrs
- disagree with Henry, thinks it is about both salmon and sturgeon
- if we didn't change substrate at numbers above 700cms, he doesn't know how they can manipulate flows to change substrate
- the company has changed before and will adapt and this will not be the last change, this is a change for today

- thinks Henry's paper should go to provincial TWG to discuss

Justus

- understands there is uncertainty in flows necessary for sturgeon recovery and SRI is working on it
 - o wants updates and results from this work, what are they working on, results, and next steps
 - o building a stronger link between TWG and SRI – maybe have someone from that group participate with TWG more often
- do we wait 3-5 yrs or is there a way to incorporate current knowledge into the process?

Discussion of next steps:

Themes: does sturgeon represent a healthy river? How do we deal with uncertainty and risk around sediment, flow, etc.? What could we do now in the interim? What would a hydrograph for sturgeon look like?

Is there something we can recommend to the MT? If not, what information do we need to make that recommendation

Wayne

- Understanding gaps, and resources to fill gaps, to hasten the facilitation to come up with answers
 - o they are under resourced and understaffed
 - o TWG could identify solutions

James

- Given the research today and recognizing uncertainty, are there specific flow options we can create or they can help us create to better recruitment and targeted values (what are uncertainty in options, what are limitations, what can and can't we do with these options)?

Henry

- Statements made already are in his working plan. Highlights from plan:
 - o Goal of suitable and sustainable habitat for sturgeon
 - o Hire the best scientist available to determine flow options to clean gravel and have physical maintenance of gravel
 - o Should be on a 20-30 yr program
 - o Considerations should be also made for other issues (i.e., flooding)
 - o Changing flows as best as we can and monitoring how it affects habitat and sturgeon recovery throughout entire process
 - o Sense of urgency to start the process

Rahul

- Fundamentally agreement with TWG and Henry's proposal

Wayne

- Thinks NHC should help answer questions (what high flow did to substrate)
 - o Jayson says they are on the agenda

Jayson

- TWG is already in line with Henry's proposal
- Not in position to recommend flows, but what can we do to get there
 - o NHC, SRI, and provincial TWG involvement to guide recommendations
 - What are key questions we have for these groups?

Dan

- Make a geomorphology presentation
 - o What are key questions for NHC

Overall

- next step is to engage NHC, SRI, provincial TWG to inform flow options and recommendations
- we need to evaluate other values (not just sturgeon) with time and resources available
- need to also look at goals around salmon