

**ICICLE WORK GROUP MEETING**  
**APRIL 27, 2017 10:00 AM – 4:00 PM**  
**Confluence Technology Center, Wenatchee**

**Meeting Summary**

**Attendees:**

Guillaume Mauger, UW Climate Impacts Group; Melissa Downes, Ecology-OCR; Cody Gillin, TU-WWP; Carmen Andonaegui, WDFW; Jim Brown, WDFW; Jeff Dengel, WDFW; Kirk Truscott, Colville Tribes; Jeff Gomes, City of Cashmere; Chuck Brushwood, Colville Tribes; Joel Walinski, City of Leavenworth; Buford Howell, Icicle Creek Watershed Council (ICWC); Dick Rieman, ICWC; Sharon Lunz, ICWC; Bill Gale, USFWS; Dave Irving, USFWS; Juddson Sechrist, Bureau of Reclamation (BOR); Mary Jo Sanborn, Chelan County; Dan Haller, Aspect Consulting; Daryl Harnden, Peshastin Irrigation District/Farmer; Keith Goehner, Chelan County; David Klinger, Citizen; Jason Kuiken, US Forest Service; Heather Lawrence, BOR; Dawn Wiedmeier, BOR; Christi Davis-Kernan, BOR; Craig Gyselink, Cascadia Conservation District (CCD); Beth Reinhart, BOR; Jeremy Cram, WDFW; Judy Gordon, USFWS; Gus Bekker, ALPS; Jay Manning, Cascadia Law Group;  
On the Phone: David Rice, Anchor QEA

**Summary:**

*January 2017 Icicle Work Group Meeting Summary – Approved*

**UW Climate Impacts Group Presentation**

Guillaume Mauger presented climate change results, including estimates of changes for 2030s, 2050s, and 2080s. Guillaume's presentations are available online at <http://www.co.chelan.wa.us/natural-resources/iwgminutes?parent=Planning> under the April 27<sup>th</sup>, 2017 meeting. A report will be completed and distributed soon. The analysis used off-the-shelf datasets to look at changes. They were not calibrated for Icicle Creek but still show reasonable results for the Icicle. Gage flows from 2015 confirm that the model projections are giving us reasonable numbers. The general pattern for stream flow is lower spring peak flows, higher winter flows, and lower summer flows.

**Questions:**

1. Q: As you downscale, does it increase uncertainty? A: It probably does to some extent. There will always be uncertainty; the key is know how to make robust decisions in spite of it.
2. Q: Do some global climate models perform better on downscaling? A: CIG filters out global models that don't predict well for our region. However, they try to leave at least 10 to give a range of predictions.

3. Q: How do we adapt to changes? A: Decision for policy makers. Others suggested additional storage to attenuate flow changes.
4. Q: Do any of the modeling efforts using downscaling account for changes in vegetation types over time? A: No, not in this effort. However, it has been done in other applications, and the effect (e.g., due to wildfires) could be important.
5. Q: Do the CIG caveats make this data still useful? A: Yes, especially in terms of the percent changes in flow. The comparison with gage flows for 2015 confirms that the model is giving us reasonable results.
6. Q: How do we look at the results? A: Read them as percent change per month in streamflow in Icicle Creek.
7. Q: Can we predict them annually? A: No. We can project the long-term changes in flows, not the year-to-year or day-to-day variations.
8. Q: Are you accounting for change in glacier size? A: No, only change in seasonal snow.
9. Q: What did you mean when you said models don't account for the lakes? A: The model does account for the hydrology of the lakes and their catchments, but doesn't account for flow regulation filling/drainage cycles.
10. Q: Is there any option for an Icicle model that is downscaled and more accurate? A: Yes, this could be done if it was deemed worthwhile.
11. Q: Could more flashy events and higher winter flows create adverse impacts to fish based on productivity and survival? A: It might. That hasn't been evaluated, but changes in "flashiness" could be assessed from this dataset.
12. Q: Is there data or a study that shows that flood/high flow events are more damaging than low flow issues? This is a question for the fish biologists. If the impacts on fish are understood, this dataset could be used to assess the relative impacts in winter and summer.
13. Q: Does the model predict storage temperature change? No. This could be done with a separate model or with the more refined modeling referred to in question #10. The Guiding Principles might need to be higher to compensate for temperature changes.

This work (from CIG) will be incorporated into the PEIS and specifically the project based water budget spreadsheet. This will allow us to look at future scenarios. We will evaluate if improvements are made now, how will they perform in the future. Discussion focused on effects of 2015 on fruit growers and the Leavenworth hatchery. Impacts that year were very difficult and we need to consider that years like that may become more normal.

### **Alpine Lakes Optimization and Automation Feasibility Study Update (Dan Haller)**

The instream flow subcommittee met to discuss the flow augmentation plan for 2017 and additional data collection planned for French and Leland Creeks (temperature and flow). Water trust donations were approved by Ecology. IPID will do maintenance and inspections on inlet/outlet works. Similar releases to 2016 with 100 cfs as the target in the historic channel. French and Leland Creek monitoring will be coordinated with WDFW. The Alpine Lakes Optimization, Modernization and Automation Feasibility Study Report will be completed within a few weeks and will be distributed to the IWG.

### **Eightmile Lake Restoration Feasibility Study Update (Dave Rice)**

Dave Rice gave a presentation summarizing existing challenges and constraints at Eightmile Lake and the work to date to evaluate options to fix them. The feasibility report will be completed and distributed to the IWG within a few weeks. The presentation is available at <http://www.co.chelan.wa.us/files/natural-resources/archives/icicle-work-group/2017/April%2027%20Icicle%20Work%20Group/Eightmile%20Lake%20Storage%20Restoration%20-%202017-04-27%20IWG%20Presentation.pdf>

Existing challenges that impact IPID's ability to release water include:

1. Erosion of the embankment reduced the volume of water that can be stored.
2. The outlet gate stem and tower are broken and rocks/debris piled there make operation difficult.
3. Outlet pipe is made of several materials, some are failing in areas and some portions are collapsing reducing capacity.

IPID plans to evaluate outlet pipe this year and will try to temporarily clear any blockages within it.

Discussion focused on construction approaches and duration to complete all of the repairs. Jason Kuiken (USFS) stated that IPID has reserved rights, which include in-kind replacement with mechanized equipment. USFS will evaluate where these rights stop/start when the report is finished. There was discussion on similarities/differences of the snow lake improvements completed. Construction methods may not have been the same and landownership is different.

### **Programmatic EIS Update (Dan Haller)**

Timeline – internal review draft will go to the co-leads (Ecology and Chelan County) in May. Co-Leads will review and may reach out to subject matter experts if questions arise. The public comment period will likely start in July/August with a public open house in early September. The October 26<sup>th</sup> IWG meeting will be important for the IWG to evaluate “are we on track with the current base package? Or do we need to consider a different package of projects”?

Water Budget Spreadsheet – this was sent out to the IWG a few months ago to help evaluate performance of alternatives. Climate change information from CIG will be incorporated to help evaluate under climate change scenarios.

NEPA Coordination – SEPA will lay foundation for project level environmental review by USBR. Discussion with USBR and USFWS and Co-Leads is ongoing.

### **Funding Coordination**

WDFW Revised Fish Passage and Survival Assessment (Jeremy Cram) WDFW is looking for general support for this assessment and if anyone has specific technical input on the proposal to please send that. There was discussion of potential funding sources. IWG believes it is a good effort if funding can be secured. Funding would need to be in place with sufficient time to run smolt traps from February to November.

Legislative Funding Update (2017-19 biennium) (Melissa Downes) Funding for the next biennium for OCR and specifically Icicle is uncertain. Icicle is not currently in either Senate or House budgets but part of that may be an error. It is in the Governor's budget. Some IWG

members asked about legislative involvement in funding for specific OCR projects as opposed to just focusing on the total budget and allowing OCR and the PAG to make decisions.

Commissioner Goehner recently met with Senator Warnick and got a sense of the process taking place. Several IWG members would like to do some outreach with key legislators in the next month or two.

Tribal Creel Study - Chuck discussed this work to collect baseline data on effectiveness catch per unit effort. This would be the same that was completed last year and helps fill data gaps for the tribal fishery guiding principle. The IWG supports continuing this work for another year funded by OCR under current budget.

2017 Flow Augmentation – mostly discussed above. The IWG supports continuing this work for another season funded by OCR under the current budget.

BPA Targeted Funding Update – funding decisions made related to Icicle projects include funding for COIC (WWT) and design for City of Leavenworth and IPID screens. BPA will contract directly with WDFW screen shop through an existing agreement. BPA will not be covering the permitting costs at this time.

Outreach Funding – The Cascadia Conservation District representative had left so Joel Walinski mentioned that CCD received a grant to conduct outreach focused on summer recreation in the Icicle as it's the source of domestic water supply.

Habitat projects in lower Icicle – Several projects identified through the geomorphic reach assessment for the lower Icicle are being proposed to the SRFB this spring. Washington Water Trust also submitted an application to SRFB for the COIC project.

### **LNFH Implementation Plan Update**

Bill Gale (USFWS) gave an overview of the status of the implementation plan. A draft is currently being reviewed by the tribes. USFWS and BOR will be NEPA co-leads and are working out the details on how that will be done. They anticipate having it available for IWG review in May with the final out in June. There had been concerns from IWG members at a previous Steering Committee meeting about the timeline slipping. Dawn Wiedmeier (BOR) stated that they are working under the deadline in the Biological Opinion and that meeting that is their goal.

Snow Lake Valve Update – there had been concerns about delays on this project. An EA will be completed by December 2017 with construction in August/September of 2018. This will include the valve only. A communication study will be completed to inform automation which would be implemented later.

### **LNFH Groundwater Permitting Statement of Work**

The IWG reviewed the SOW and discussed the importance of groundwater to meet tribal obligations. This SOW allows the permitting strategy to get in place while other aspects of the project are being developed. IWG felt this was consistent with what has been discussed and endorsed this work. USFWS is working to secure funding to get this done.

### **Other Updates and IWG Business**

AWRA conference in WA D.C. – Icicle abstract accepted. Mike Kaputa and likely Melissa Downes will present. If anyone else is interested, let them know.

PEIS outreach – looking to do a public open house in September with large IWG member participation. If anyone has outreach needs during draft PEIS review, let Mary Jo know.

IWG Member Update Cascadia Conservation District would like to become a member of the Icicle Work Group and their Board of Directors has voted to do so.

***IWG approves adding Cascadia Conservation District as a new IWG member.*** A letter will go the CCD from the co-conveners (Commissioner Goehner and Director Tebb).

Guiding Principle Metric Table

***IWG approves edits to the table recommended by the Steering Committee***

### **Public Comment**

Gus Bekker, Alpine Lakes Protection Society (ALPS)

ALPS would like to talk to the Icicle Work Group or the Steering Committee at some point to discuss questions and concerns. ALPS follows this work and discusses it at their Board meetings regularly and with others.

There was discussion of whether it's best to come to the Steering Committee or full IWG or both. Jim Brown and others in the facilitation team will discuss the best time with Gus and set up the meeting.

### **Adjourn**