

COLUMBIA RIVER TECHNICAL MANAGEMENT TEAM

March 20, 2024

Facilitator's Summary

Facilitation Team: Emily Stranz & Colby Mills, DS Consulting

The following Facilitator's Summary is intended to capture basic discussion, decisions, and actions, as well as point out future actions or issues that may need further discussion at upcoming meetings; it is not intended to be the "record" of the meeting. Official minutes can be found on the TMT website: <https://pweb.crohms.org/tmt/agendas/2024/> Suggested edits for the summary are welcome and can be sent to Colby at colby@dsconsult.co.

Review Meeting Summaries & Minutes – TMT Members approved the official meeting minutes and facilitator summary from the March 13 meeting.

Chum Operation – Charles Morrill, WA, reported that there are more than adequate flows to maintain the established chum protection level. Chum are beginning to emerge from Hamilton Springs, although still in the very early stages, which is expected at this time. He noted that this is not an accurate representation of fry emergence in the Ives/Pierce spawning area due to differences in water temperatures, but it's an indicator that chum are emerging from the gravel and leaving the Ives/Pierce area. Once available, Charles will provide an update on the number of adults in Hamilton Springs this year.

NOAA echoed that conditions should allow for BPA to maintain the chum tailwater minimum at Bonneville Dam through the start of spring spill, without any risk to the elevation target at Grand Coulee Dam.

Spill Priority List - Alexis Mills, Corps, reported on the spring Spill Priority List (SPL), which is intended to describe how lack of load spill is managed on the Columbia River System to manage TDG on a system-wide basis (SPL posted to the TMT website). There are no changes to the order from last year, only minor changes to formatting due to differences in FOP spill. Alexis noted that Level 1 is FOP spill, and projects shaded in grey in Level 2 are spilling at the 125% gas cap 24 hours/day. The Corps is open to suggestions for reordering and requested that Salmon Managers provide feedback as soon as they are able (SPL will be distributed to BPA and the projects prior to April 3).

Kelsey Swieca, NOAA, noted that Salmon Managers need more time to review the SPL before providing feedback; the SPL will be on FPAC's meeting agenda for next week. She thought there might be changes requested based on new operations. In the meantime, Salmon Managers were interested in getting more clarity from BPA on:

1. How will the SPL and its use of lack of load interact with the MOU changes in minimum generation?
2. How will "lack of load" be declared?

Tony Norris, BPA, responded that the expanded minimum generation range in the MOU is primarily a low flow issue, when they are in a min-gen-spill-the-rest situation and needing to carry reserves above absolute minimums, without having a variance or declaring a power emergency. There is no real interaction between the minimum generation ranges in the MOU Appendix B and the SPL. Tony emphasized that BPA will reduce generation wherever possible for lack of load, and will access the SPL when generation can't be reduced further without exceeding the gas cap.

Kelsey also asked the Corps if the Level 3 (130% TDG) McNary spill cap (320 kcfs listed) considers the constraints of McNary operations due to the spillway outages. Alexis responded that the estimate listed is likely higher than what will be sent to BPA and the projects. The Corps has not finalized spill caps yet,

and the spill caps listed are examples and will change prior to the start of spring spill. Spill caps will be evaluated daily and adjusted as needed to target the gas cap.

- **ACTION**: Salmon Managers will review the SPL at FPAC next week and provide input as soon as possible.

Upper Snake Flow Augmentation – Chris Runyan, Reclamation, provided an update on flow augmentation in the Upper Snake. This year, water supply is looking decent, if a bit below average. There are good rentals out of the Payette, and flow augmentation out of the Upper Snake is looking good. Reclamation is estimating 471 kaf of flow augmentation and would like to get to 487 kaf if possible, depending on any increase to water supply (427 kaf is the lower range). Another update will be provided next month.

Questions and Comments from Members of the Public – There were no questions or comments from members of the public.

The next scheduled TMT meeting is a call on March 27, 2024, at 9:00 AM.

**Columbia River Regional Forum
Technical Management Team
OFFICIAL MINUTES
Wednesday, March 20, 2024
Minutes: Andrea Ausmus, BPA (contractor, CorSource Technology Group)**

Today's TMT meeting was held in person and via webinar, chaired by Doug Baus, Corps, and facilitated by Emily Stranz, DS Consulting. A list of today's attendees is available at the end of these minutes.

1. Review Summaries and Minutes – March 13

- Summaries and Minutes – Approved

2. Chum Update – Charles Morrill, Washington, Kelsey Swieca, NOAA Fisheries

Morrill shared that there have been more than adequate flows to maintain protection flows as established. It is still in the very early stages of the chum emergence from Hamilton Springs. In terms of the curve, we are about where we would expect to be seeing increasing number of chum coming out of Hamilton Springs. Morrill did preface this saying that this is not an accurate guide because of the water temperatures but it can be used as an indicator that chum are emerging from the gravel and what is going on in the spawning area.

Swieca shared that there are not any updates from NMFS other than BPA still expects to be able to continue chum tailwater elevation through the start of spring spill without any risk to their elevation.

Morrill was asked if there is a location online available yet of the number Adult Chum that went into Hamilton Springs for 2023/24. Morrill said that he does not have those numbers and he does not think that those numbers have been released to the public. He will provide those numbers when they are available.

3. Spill Priority List – Alexis Mills, Corps-NWD

a. 2024 Spring

- The Spill Priority List is intended to describe how the Corps manages spill for Lack of Load on the Columbia River System to manage Total Dissolved Gas (TDG) on a System-wide basis.
- Mills said that this was posted very recently, so Salmon Managers have not been able to look at it prior to the TMT meeting.
- The 2024 Spill Priority List has no changes in terms of order from last year and there are only minor changes to the formatting due to differences in the Fish Operating Plan (FOP).
 - Level 1: FOP Spill
 - All Projects shaded in blue are spilling at Level 1 in accordance with the FOP.

- Level 2:
 - All Projects shaded in gray are spilling with the same spill rate as Level 1 (i.e., 125% TDG gas cap 24-hours per day).

The Corps is open to suggestions to reordering.

Kelsey Swieca, NOAA, said that they did not have a lot of time to talk about this in FPAC at the last meeting and so they have this on the agenda for the FPAC meeting next week. She said that they will be able to provide some more concrete input after that. She said that she thinks that there may be some changes requested based on new operations but that will have to be talked through next week. She said that there was a number of clarification questions that the salmon managers were hoping to be able to ask today. In particular, Swieca said that they are interested in getting more clarity from BPA about how the Spill Priority List and its use of Lack of Load interacts with the MOU changes in Minimum Generation and reserves, and how we should interpret how Lack of Load will be declared.

Norris said that expanded Minimum Generation range is primarily a Low Flow issue. When we are in a Min Gen/Spill the Rest and need to carry reserves above those absolute minimums without having a variance or having to declare a power system emergency of some sort. He said that there is no real nexus between or any influence of the Min Gen ranges in the MOU Appendix B. There is no interaction between it and the Spill Priority List. He said nothing has really changed, they still have to carry reserves in a Lack of Load condition, but they have guidance to spread that out to minimize TDG or interruption to spill. It is a Low Flow when we are in a Min Gen/Spill the Rest. If they are at the gas cap and are generating above that is when you see a Lack of Load condition and they would reduce generation as needed but it would not impact the Lack of Load.

Bettin said that it was not intended for high flow, low load when you can not generate enough. You do not need more reserves you would probably need less. He said that the condition that Norris is talking about is when you have to carry more so you can drop Lack of Load based on Loss of Load. But this is based on when you have really high flows and there is not enough load to put on all the turbines, which do you leave off. It is the opposite extreme.

Jonathan Ebel, ID, said that he understands what Bettin was saying but in theory a Lack of Load could happen at any time. He said that it was his understanding that Min Gen was held in reserve to specifically address a rapid change in flow, which the Spill Priority List also addresses in different cases. He asked if what Bettin is saying is correct then can there be a flow range be put on the Spill Priority List. He said that he thought that the reserve should be used first before implementing this risk.

Norris said that they would not access the Spill Priority List if they were able to reduce generation. They have to carry reserves, but they would access the reserves before they would access the Spill Priority List. The expanded range only affects when they are in a Min Gen/Spill the Rest situation.

Stranz stopped the conversation and reminded everyone that they have this conversation every year and it has the capacity to get everyone confused and have them speak past each other. She invited everyone to listen to understand what the other person is trying to say so that TMT continues to move forward together.

Ebel said for example you have Min Gen/Spill the Rest across the system as a whole. There is a Min Gen of 80 at McNary, which is the higher.

Norris pointed out that is the Min Gen range.

Ebel confirmed and continued that they are holding a reserve at McNary, and they are holding a reserve at John Day under the MOU. He said essentially, they are 20K over the upper end of the former range, which Ebel said his understanding was reserved for a rapid decreases in flow. He said that is 20K that they could knock off before implementing this list of spilling a generation equivalent at Dworshak or Chief Joseph.

Norris said yes, they would just reduce generation down to the absolute minimum, the 50, because if you have a Lack of Load, that means you have no place to put the load. They would reduce generation before.

Ebel asked if that would occur before the Spill Priority List.

Norris said yes, none of that has changed, it is the same as it has always been.

Ebel said that he wanted to make sure.

Norris said that if they were at the gas cap, as they would be filling up to the gas cap, then they would just reduce generation as low as they can.

Ebel asked if something happened, he would expect to see generation go down to the lower end of the minimum at McNary at John Day before spill at Chief Joseph.

Norris said yes, they would reduce generation wherever they can, they access the list when they cannot reduce generation any further without exceeding the gas cap.

Bettin said that they spill at Chief Joseph to make sure that they can keep the minimum flow on those projects; that is the balancing act.

Swieca said that another question that had come up was pointed to the Corps. The McNary level 3 gas cap has 320 cfs, she asked if this considers the constraints with operations at McNary spillway or if that needs to be updated.

Mills said that the 130% TDG spill cap is probably higher than what the Corps will send to BPA and the Projects. She reminded TMT that the spill caps displayed here are meant as examples and will inevitably change during the Spring.

Erick Van Dyke asked if that means that they have not adjusted them yet.

Mills said she did just adjust McNary for the Level 2 and that the spill caps shown. Level 3 was not adjusted for this example in the draft Spill Priority List, but lack of load spill caps are adjusted daily as needed.

Mills was asked about the flexibility at McNary for keeping to the Fish Passage Plan spill pattern. She said that they still have flexibility to adjust the gates in roughly 2 kcfs increments, consistent with previous years.

Swieca asked when Mills needs the FM’s final recommendations for order of the Spill Priority List.

Mills said with the current forecast she does not anticipate immediate Lack of Load conditions on April 3, but the Corps will send out the order prior to April 3.

Swieca said that they will take the Spill Priority List back and have some conversations at FPAC and hopefully be able to provide some insights next week. She said as it has been talked about, this has been confusing and it may take multiple iterations to come to a path forward. She said hopefully by next week they will be able to provide input, but it might take longer than that.

Mills told Swieca that she should feel free to ask her questions if she has any.

4. Flow Augmentation in Upper Snake – *Chris Runyan, BOR*

- Water Supply is looking decent to a little below average.
- Good rentals out of the Payette
- Rentals from the Upper Snake above Milner based on colorful charts is looking good as well.
- Total Flow Aug Estimate at this time is 471 kaf which is not quite at the ultimate goal of 487 kaf but above our lower target of 427 kaf.
- Things that can change:
 - If water supply goes up: May get more rentals to get to the 487 kaf.
- Runyan Another update next month.

5. Public Comments:

6. Set agenda for next meeting – **March 27, 2024**

- a. Flow Augmentation in Upper Snake – Chris Runyan, BOR

Today's Attendees:

Agency	TMT Representative(s)
NOAA Fisheries	Kelsey Swieca
Oregon	Erick Van Dyke
Washington	Charles Morrill
Kootenai Tribe	
Colville Tribe	
Umatilla Tribe	Tom Lorz (CRITFC)
Yakama Nation	Keely Murdoch
Bonneville Power Administration	Tony Norris, Scott Bettin
US Fish & Wildlife Service	Dave Swank
Idaho	Jonathan Ebel
Montana	Brian Marotz
Spokane Tribe	
Nez Perce Tribe	Jay Hesse
Warm Springs Tribe	
Bureau of Reclamation	Chris Runyan
Army Corps of Engineers	Doug Baus, Julie Ammann, Aaron Marshall, Lisa Wright

Other Attendees (non-TMT members):

COE – Alexis Mills, Catherine Dungeon

BOR – Jen Johnson, Pete Cooper, Ryan Fosness, Kain Shafer, Tim Clarkin

BPA – Tammy Mackey

Washington Ecology – Thomas Starkey

DS Consulting – Emily Stranz (Facilitator), Colby Mills

CorSource – Andrea Ausmus (BPA note taker, Contractor)

Energy Keepers – Eve James

Chelan PUD - Jay Fintz

Northwest Power Council – Kate Self

Columbia Basin Bulletin – Mike O'Bryant

Avista Utilities – Patrick Maher