COLUMBIA RIVER TECHNICAL MANAGEMENT TEAM
December 17, 2025
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://public.crohms.org/tmt/agendas/2025/. 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's summary from November 19.

[Facilitator's Note: the following sections occurred out of order during the meeting due to presenter availability, they have been recorded here to align with the meeting agenda.]

Chum Operation – Doug Baus, Corps, emphasized that Action Agencies' goal for the meeting was to set the Bonneville Dam (BON) minimum tailwater elevation for the incubation phase of the Chum operation. BON at 0800 hours this morning had a tailwater elevation of 18.1 feet with outflows of 207 kcfs. The RFC inflow forecast over the next 10-day period ranges from a high of 250 kcfs on December 18 to a low of 191 kcfs on December 26.

Precipitation and temperatures for the month are significantly above average across the basin, for example, the Columbia above Arrow (ARDB) is at 280% of normal precipitation. Both the 6-10-day and 8-14-day climate outlooks indicate above-average temperatures and precipitation.

Tony Norris, BPA, noted that BPA expects to remain at current flow levels at least through the next 10 days at a minimum prior to hopefully seeing a recession in flows. Field surveys show significant inundation at Hamilton Creek/Hamilton Island, but conditions and reduced visibility have hampered the effectiveness of surveying. Charles Morrill, WA, reported that monitoring crews observed very few fish during recent visits, and evidence suggests that spawning peaked in mid-late November, declining substantially since then.

TMT members discussed typical desired tailwater bands for chum spawning and incubation, noting preferred optimal protection levels. From Washington's perspective, spawning is over. Given current conditions, survey data, and forecasted sustained high flows (which make maintaining higher target bands unrealistic short-term), they recommended setting a minimum BON tailwater elevation of 11.4 feet for the chum incubation phase starting on December 26.

Action Agency Implementation
The chum spawning phase will transition to the incubation phase on Friday, December 26, 2025, with a minimum BON tailwater elevation of 11.4 feet (hourly minimum) all hours. It was clarified that the actual tailwater will likely remain above that value in the coming weeks, and it is not an expectation that BON will reach 11.4 feet on December 26. The operation will be revisited to coordinate end-of-incubation actions in April 2026; surveys and monitoring will continue throughout as conditions allow.

Zero Generation – Tony Norris, BPA, reported that NOAA provided notice of available flexibility, but due to milder temperatures and higher flows there was no need to utilize flexibility with the amount of water in the system. Zero-gen flexibility is unlikely to be used until colder temperatures and lower stream

flows arrive. Kelsey Swieca, NOAA, added that all TMT representatives received a copy of the memo distributed that notified Action Agencies the trigger had been met.

Operations Review – *Reservoirs* – Chris Runyan, Reclamation, reported on Bureau of Reclamation projects:

- **Hungry Horse (HGH)**: HGH recently experienced a significant warm weather precipitation event which drastically increased inflows, up to 13.7 kcfs yesterday, with outflows up to 4.5 kcfs. Midnight elevation was 3,549.5 feet (near end of December target); the project will increase outflows near 6,000 cfs likely tomorrow, to meet that target. Storage has filled about 8/9 feet, right up to FRM; the project remains in a good position for future dry conditions and moving water in the short-term.
- **Grand Coulee (GCL)**: inflows yesterday were at 109 kcfs, with outflows of 97.1 kcfs, and a midnight elevation of 1,286.2 feet. The project filled almost 3 feet in the last week and is projected to continue filling over the next week with similar inflow trends. GCL will conserve space long-term, and drum gate maintenance starting mid-March will require an elevation of 1,255 feet for 8 weeks.

Kasi Underhill, Corps, reported on Corps of Engineers projects:

- **Libby (LIB)**: midnight elevation was 2,425.9 feet, with average inflows of 9.5 kcfs and outflows of 16.3 kcfs. Issues with the T1 transformer has left the project on three units, while LIB reduced outflows to 4 kcfs to prevent flooding at Bonners Ferry. The 4th unit is expected to return by end of week and outflow will increase to use available units. Kasi confirmed that flows dropped for flood risk to 4 kcfs for 2 days (December 11/12).
- **Albeni Falls (ALF)**: midnight elevation was 2,049.5 feet, with average inflows of 37.5 kcfs and outflows of 30.8 kcfs. The project is continuing flexible winter power operations and additional storage will be released at a later date.
- **Dworshak (DWR)**: midnight elevation was 1,537.1 feet, with average inflows of 14.1 kcfs and, outflows of 1.7 kcfs; minimum outflow will continue for now.
- **Lower Granite (LWG)**: average one-day flow was 36.2 kcfs.
- **McNary (MCN)**: average one-day flow was 151.9 kcfs.
- **BON**: average one-day flow was 193.4 kcfs with an average tailwater elevation of 17 feet. Maximum flow through the current weather event is 250 kcfs to reduce flood risk in the lower Columbia River.

Kasi noted that the Corps is also drafting John Day (JDA) to manage flood risk in the lower Columbia.

Water Quality – Dan Turner, Corps, reported that TDG has been staying low, under the 110% criteria, although some values have been popping up over the last couple days due to forced spill on the system.

Fish – Kelsey reminded the group that the smolt monitoring program is not sampling this time of year. BON is seeing low numbers of adult coho and steelhead, with only 1 chum recorded in the last week although passage to date is 154% of the 10-year average (511). At LWG, steelhead passage (exclusively) continues, ranging from 19-70 total and 9-23 unclipped over the past week.

Dave Swank, USFWS, had nothing to add, the adult lamprey passage season is long over.

Power System – Tony reported significant levels of water in the system with relatively mild and above average temperatures; there are no power issues outside of residential power outages due to current weather events being addressed by local utilities.

Other Business Items – The TMT decided to cancel their scheduled December 31, 2025, meeting; an unscheduled TMT meeting can be added if any issues arise.

Questions or Comments from Non-TMT Members – There were no questions or comments from members of the public.

The next TMT meeting will be on January 14, 2026, at 9:00 AM.

Columbia River Regional Forum
Technical Management Team
OFFICIAL MINUTES
Wednesday, December 17, 2025

Today's TMT meeting was held via Microsoft Teams and conference call, chaired by Doug Baus, Corps, and facilitated by Emily Stranz, DS Consulting. Minutes were collected by Andrea Ausmus, BPA (contractor, CorSource Technology Group). A list of today's attendees is available at the end of these minutes.

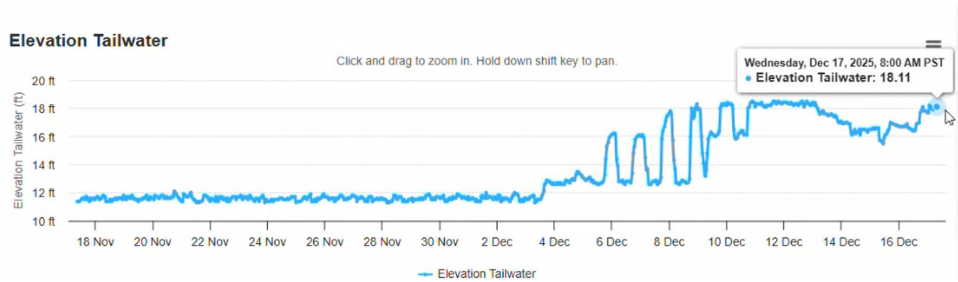
1. **Review Summary and Minutes** – *Emily Stranz, DS Consulting*
   a. November 19 Facilitator Summary and Minutes
      - Approved

2. **Zero Generation –** *Tony Norris, BPA; Kelsey Swieca, NOAA Fisheries; and Doug Baus, Corps-NWD*
      - BPA Update
        - NOAA provided the notice that flexibility was available, but it has been wet and there is a lot of water in the river with mild temperatures.
        - With the Snake River flowing with 40 – 50 kcfs and mild temperatures, there has been no need to utilize the flexibility with so much water in the system.
        - It will not likely be used until we get down into colder temperatures and lower typical Winter streamflows.
      - NOAA Update

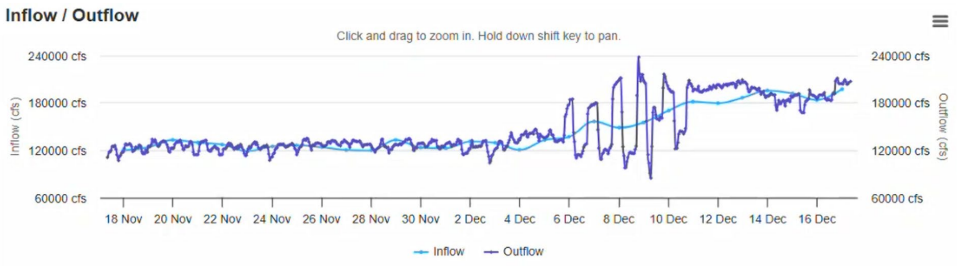
        All of the TMT representatives should have received a memo that was distributed notifying the Action Agencies that the trigger had been met.

3. **Chum Operations –** *Doug Baus, Corps NWD; Tony Norris, BPA; Chris Runyan, BOR; Emi Milton, NOAA Fisheries; and Charles Morrill, WA*
   a. Chum Spawning Phase Operation
      - Chum Spawning Phase Operation was coordinated on October 22 and started on November 1 at 0600 hours with a Bonneville tailwater elevation range of 10.5'-11.2, with a transition on November 4 at 0001 hours to a range of 11.3 – 13.0'.
   b. Chum Incubation Phase Coordination
      - Time of the year that TMT coordinates the transition from the Chum Spawning Operations to the Chum Incubation Operation and sets the BON minimum tailwater elevation.

c. Bonneville Dam (BON) – Hourly Data – *Baus*

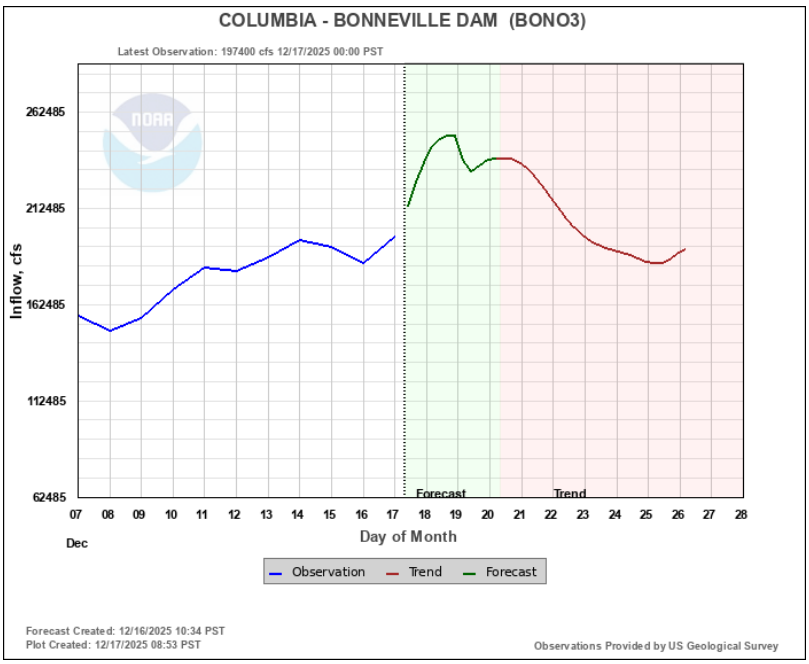


- Tailwater Elevation (Hour 8): 18.1 feet



- Total Outflow: 207 kcfs

d. NWRFC – BON Inflow Forecast (10-day) - *Baus*



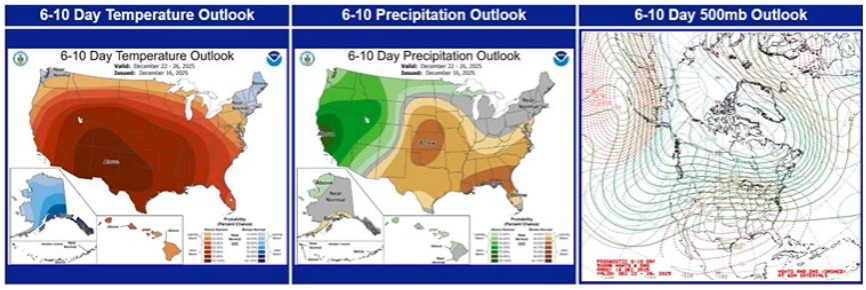
- BON Inflow Forecasted:
  - High: 250 kcfs (December 18)
  - Low: 191 kcfs (December 26)

e. NWRFC Monthly Precipitation Table
- Snake River Basin abv Ice Harbor Dam
  - Observed inches: 1.8 inches
  - Percent of Normal: 113%
- Columbia River Basin abv Arrow Dam
  - Observed inches: 8.55 inches
  - Percent of Normal: 280%
- Columbia River Basin abv The Dalles Dam
  - Observed inches: 3.41 inches
  - Percent of Normal: 181%
- Snohomish River Basin
  - Observed inches: 20.7 inches
  - Percent of Normal: 302%
- Willamette River Basin abv Portland
  - Observed inches: 6.44 inches
  - Percent of Normal: 108%
- Above average precipitation throughout the Columbia Basin.

f. NWRFC Monthly Temperature Table
- Snake River Basin abv Ice Harbor Dam
  - Deviation: +9.8°
- Columbia River Basin abv Arrow Dam
  - Deviation: +7.8°
- Columbia River Basin abv The Dalles Dam
  - Deviation: +9.8°
- Snohomish River Basin
  - Deviation: +7.6°
- Willamette River Basin abv Portland
  - Deviation: +8.6°
- Above average temperatures for the month of December.

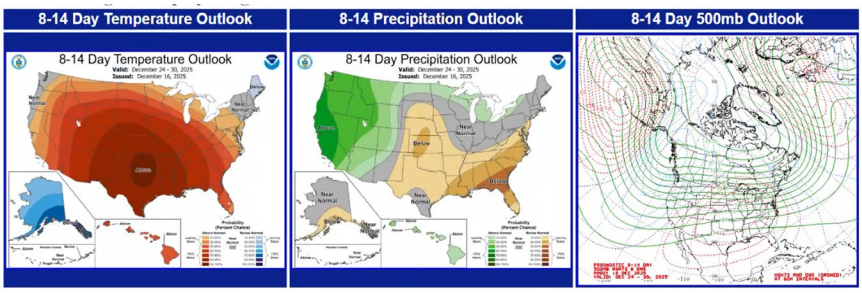
g. Climate Forecast

- 6 to 10 Day Outlook



  - Temperature:
    - There is a probability of above average temperatures with a sliver of Washington that has a probability of near normal temperatures.
  - Precipitation:
    - Probability of above average precipitation throughout the entire Columbia Basin.

- 8 to 14 Day Outlook



  - Similar pattern to the 6 to 10 day outlook.

h. BPA Update – *Norris*

- There is a lot of water and BPA is expecting to remain at these flow levels through the next ten days at a minimum before we hopefully see a recession.
- Norris shared a PDF that included photos.
  - Photo 1: November 3
    - Looking upstream toward the mouth of Hamilton Creek. It shows Hamilton Island in the center, Hamilton Creek on the left and the mouth of Hamilton Creek in the foreground.
    - BON Tailwater elevation at 10.5 feet.
    - Hamilton Creek 1.5 – 2 feet over the gauge.
  - Photo 2: December 11
    - Same location.
    - BON Tailwater elevation at 18 feet.

        - High velocities throughout this reach with the entire area pretty much submerged.
    - In the coming days we might see an even higher tailwater as we see the forecasted flow of ~250 kcfs over the weekend.
- Charles Morrill has been talking to the chum monitoring crews and visited the Ives with Norris last Friday.

i. Washington Update – *Morrill*

- The picture that Norris shared from last Friday was during an at least 18.2-foot tailwater. There was a lot of water coming down there.
- Morrill said that he had talked to Ricky and the crew for about an hour on Friday (December 12) and yesterday (December 16).
- He said it was their assessment that the timing of the increased tailwater elevation occurred just about what they thought was the end of spawning and this continues to be their assessment.
- He said that there may be more fish out there, but it would be very few. Ricky said that he only saw a couple of fish on December 16 and the visibility was terrible and they could only see the top foot of water.
- Morrill said that it was Washington's comfort level that there is no more active spawning in the Ives-Pierce area.
- Morrill said because of the timing and the increase in water level Washington had a request for the Corps and BPA to consider setting a 11.4' as the level for emergence and incubation to provide a cushion for the redds that are close to the edge.
- Morrill said looking at the forecast on TMT for inflows into BON he did not think that we were going to see anything below 16.0' before the end of the year and normally our target date for ending chum protection is the end of the year. He also added that we are not going to see flows that are beneficial or would allow chum to reach their normal spawning grounds in the Ives-Pierce area until after the first of the year. He said that Washington thought that the spawning period was over and they were comfortable setting the new tailwater elevation on the next following Friday (December 25).

Chum Salmon Spawning Ground Surveys Below Bonneville Dam, 2025.

Survey Area	Date	Lives	Dead*	Redds**	Visibility	
Ives/Pierce Island Complex	22-Sep-25	0	0	0	6.5 ft	
	29-Sep-25	NC	NC	NC	0 ft	Boat motor issue
	6-Oct-25	0	0	0	10.0 ft	
	17-Oct-25	0	0	0	5.5 ft	Bad wind chop
	20-Oct-25	0	0	0	12.0 ft	
	27-Oct-25	0	0	0	12.0 ft	
	3-Nov-25	4	0	0	4.0 ft	
	12-Nov-25	174	0	62	8.0 ft	
	18-Nov-25	498	25	93	8.5 ft	
	25-Nov-25	274	80	57	7.0 ft	
	2-Dec-25	110	52	34	8.0 ft	
	9-Dec-25	0	0	0	0.5 ft	High water

Chris Runyan, BOR, thanked Morrill. He said that he considered Morrill the expert in the chum spawning below BON. Runyan said that when he looked at the numbers, he said a peak Lives on November 18, and then the next week it was about half, and then the next week it was about half, and then the next week it was zero, and then we are another week

out. He asked if that was normally how it works, you hit a peak and then it goes down. He asked if that shape indicated when spawning occurs and when spawning ends. He asked if that shape was normal.

Morrill said yes with the exception of the last two zeros reflecting high water and poor survey conditions. He said that we typically see Chum hand on until around between Christmas and New Year's, as the typical end of it. He said that we typically look at it around the Christmas time or just before and take a look to see what the survey crews feel and what the perception is in terms of protecting the listed population. He said what Runyan saw suggested that it ended a little earlier, which was what his conversations with Ricky, Brian and others alluded to and that was why Washington is saying they are comfortable going ahead with making the recommendation, requesting to go to an 11.4 on the following Friday.

Runyan said excellent. He said in general flows came up early December, around the December 9 time frame. He asked if it was in Morrill's experience that once flows start exceeding 13.0' that you are not going to get much spawning in general and therefore, since we have had flows pushing 18.0 feet it would be reasonable to assume spawning has not occurred during that time as well. He asked Morrill to provide more information on what his trigger of velocity/stage at BON where he thought that spawning was impacted by higher flows.

Morrill said that our history, and Norris could speak to it as well, is the desired band (11.1 – 13.0 feet) which enables chum to utilize most all of the available spawning area in the Ives/Pierce area. He said when we start getting about 14.0' the experience is that it will push fish off the redds and when the flows go back down the fish will move back on. Once you start getting above 14.0' you create velocities and desired spawning areas that are typically too high for chum to spawn in, and they will move to areas other that desired areas. He said that the game plan, if we have to, is that we would go to 16.0' and try to bring it back down to the 13.0' during the day and beyond that it is simply out of our control, there is too much water for us to effectively use water to manage the area where chum can spawn in. So, the timing of this year appears to have hit near the end of most of the active spawning based on survey data and when the water comes up it makes it very difficult to assess what is going on in the Ives/Pierce area. He said that they can, however, look at the cribs, look at Hamilton and Hamilton Springs. He said in the Springs there are maybe half a dozen live fish, but there was no fish swish in Hamilton Springs. On Friday Morrill said that he thought it was one female that may have been trying to dig but her body condition did not suggest that she was a fresh fish digging a new redd.

Runyan said that helped a ton. He said that Reclamation supports chum flows ensuring that there is enough water down there with the caveat that water out of GCL for Chum could impact Spring flows later, so they always want to keep that in mind. But based on Morrill's recommendation of proposing the 11.4' range which is not as high as done before so Reclamation does not see a concern there. He said that he appreciates the actual data and expertise that Morrill has with this operation.

Morrill said that he does know quite a bit about the Chum, but he certainly leans on staff that have had to spend many hours out there doing physical surveys. He said that they communicate a lot during this time of year.

Kelsey Swieca, NOAA, said that she had a couple of things and she would pick through them one by one. She said that the first was that she was going to add a little bit on to Morrill's response to Runyan about whether there was a specific BON tailwater in which fish are no longer spawning. She said that Morrill did a good job summarizing that, but she wanted to highlight that there is an interaction between the flows in Hamilton and BON tailwater and you could have different relationships between spawning habitat access and ability in BON tailwater depending on what the flows in Hamilton are. Swieca's second point had to do with clarification of the date that Morrill had proposed, this conversation is reflected in the notes above. Her last comment was given the current water conditions, what we are seeing in terms of Chum counts both across BON and in the spawning surveys – we saw an additional data point come in just yesterday saying that there were zero lives observed on December 9. She said that she believed that we are going to get potentially one more data point in the coming days but regardless, because of the water conditions what we are seeing in terms of Chum counts, both in the spawning grounds and at BON, and the fact that we are going to be doing drum gate maintenance at GCL this year, NMFS is comfortable with the recommended timing of transition to the incubation phase of next Friday, December 26, and are also comfortable with an 11.4' tailwater as suggested by Washington.

Baus said that he wanted to clarify that it was the minimum tailwater of 11.4'. He said that he want to clarify as we move forward, the tailwaters will continue to be above that. He said that he wanted to make sure TMT were not expecting on December 26 to see the BON tailwater down to 11.4' and as we move forward in the next few months it will be above that.

Stranz said yes and that was a good clarification.

Erick Van Dyke, OR, said that he was hearing that Washington was acquiescing to, what Van Dyke felt was really related to the water expectations in atmospheric conditions, and it was not really feeling like the relationships that TMT are using to describe the behavior of Chum was absent of the fact that we are managing them to be in a place. He said that the reality is that since before the Chum operation has been outside the 1-foot band that we try to stay within, that will influence what you see on the ground. He said that the plan moving forward sounded reasoned to him, he thought that the reality was what we expect to be able to do with water. He said that he had not or heard that anyone had the expectation that BON would be at an 11.4' anytime soon. He wanted to make sure that it was recognized.

Runyan said that he wanted to make sure that everyone had the opportunity to voice concerns, if there were any concerns. He said that it sounded like Oregon did voice some good points, but in general he was hearing that Morrill made a good case based on data and what was out in the field. He said that he wanted, before Reclamation supports this as well, to make sure and give anyone an opportunity to say otherwise. He said if not, that was great and it sounded like a good coordination, but he wanted to make sure to give people an opportunity one more time.

Morrill said that he appreciated Van Dyke's comments. He said that from a biological perspective, if we could maintain a band of 11.3 – 13.0', or even up to 14.0' through the end of the season theoretically that would be the preferred option. But, pragmatically,

given the information that we have so far this season, the likelihood that we are not going to see 13.0' tailwater or even up to 14.0' through the first of the next year it does not seem to be an unreasonable choice to move ahead and set the tailwater at 11.4' and do so on December 26. He said that he appreciated the concern and biology and the behavior of the animals is Washington's first choice. He said given the outlook of the flows Washington does not see that it is going to have a negative impact on any Chum that may be still present.

j. Incubation Phase

- Based on BOR's decision to transition from the Spawning to Incubation Operation the Corps will provide that notification to the Project.
- On December 26, the Action Agencies will start the BON Chum Incubation Operation. Set a minimum tailwater elevation on all hours of 11.4 feet and will continue until TMT coordinates in April 2026.

Morrill said that he wanted to pointed out that the change in the level does not mean that Washington would not be out monitoring. He said that there were not going to be many surveys and those that they have may not be very good but given the opportunity Ricky and the crew would be out. He said that maybe below Ives/Pierce they would see some fish, but it will be difficult to see with the conditions coming over the next two weeks.

4. Operations Review

a. Reservoirs

Reclamation – Chris Runyan

- Hungry Horse Dam
  - Conditions:
    - Very windy with close to 100 mph winds up on some of the ridges.
    - Valley was reporting ~70 mph gusts since midnight.
    - Over the last week HGH had seen a pretty significant warm weather precipitation event which got inflows to increase dramatically yesterday.
  - Inflows (12/16): 13.7 kcfs
  - Outflows: 4.5 kcfs
    - Increased
  - Midnight elevation: 3549.5 feet
    - Just about where HGH should be by the end of December.
    - Filled: ~9 feet last week.
      - Up at HGH FRM.
  - Current Operation:
    - Outflows will increase to 6 kcfs to meet elevation (potentially on December 18).

- Grand Coulee Dam
  - Inflows (12/16): 109.5 kcfs
  - Outflows: 97.1 kcfs
  - Midnight elevation: 1286.2 feet
    - Filled: ~3 feet last week.
    - Projected to fill more with inflows over next week.
  - Operations:
    - Conserve space in GCL in the long term.
    - Longer out is drum gate maintenance, required in 2026.
    - 1255' by mid-March for 8 weeks of work.

Corps – Kasi Underhill, Corps

- Libby Dam (Lake Koocanusa)
  - Elevation: 2425.9 feet
  - Average 1-Day Inflows: 9.5 kcfs
  - Outflows: 16.3 kcfs
  - Conditions/Operations:
    - There were problems with T1 transformer and LIB was down to three units.
    - The atmospheric river really increased outflows and reduced LIB outflows to 4 kcfs from December 11 – 12 to prevent flooding at Bonner's Ferry.
    - Unit 4 is expected to be commissioned at the end of the week and once returned to service LIB outflows will increase to using all available units.
    - Outflow measured 10.7 kcfs because there was a trip but that has been returned to service.

Brian Marotz said that he had a question about LIB. He said that Underhill had said that LIB had dropped the flows because of the flooding that was occurring downstream for four days LIB had dropped to 4 kcfs. He asked if that was correct.

Underhill said that it was 4 kcfs for 2 days, December 11 and 12.

Marotz asked if it was now flowing around 15 kcfs.

Underhill said yes, about 16 kcfs.

- Dworshak Dam
  - Elevation: 1537.1 feet
  - Average 1-Day Inflows: 14.1 kcfs
  - Outflows: 1.7 kcfs
  - Operations:

        - Minimum Outflow continuing for now.
- Albeni Falls (Lake Pend Oreille)
    - Elevation: 2049.5 feet
    - Average 1-Day Inflows: 37.5 kcfs
    - Outflows: 30.8 kcfs
    - Operations:
        - The Flexible Winter Flow operation is ongoing. Spilling 8 kcfs with 23 kcfs.
        - The additional storage within Lake Pend Oreille being released at a later date depending on inflow and marketing conditions.
- Lower Granite Dam
    - Average 1-Day Inflows: 36.2 kcfs
- McNary Dam
    - Average 1-Day Inflows: 151.9 kcfs
- Bonneville Dam
    - Average 1-Day Inflows: 193.4 kcfs
    - Average Tailwater Elevation: 17 feet
    - Maximum Flow: 250 kcfs
        - To reduce flood risk in the Lower Columbia River.
    - John Day Dam Operations:
        - Drafting to reduce risk of flooding in the area. The Corps is not anticipating flooding but are doing this as a proactive measure to help manage the flood risk with the coming AR. Plan to have it drafted by midnight of December 18.
        - Plan to hold it in the 1.5-foot band for as short a time as possible.

b. Water Quality – *Dan Turner, Corps*

- TDG
    - TDG are below 110% but some of the values have been popping up over the last couple of days due to some forced spill on the system.

c. Fish

Salmon – Kelsey Swieca, NOAA

- Juveniles
    - Smolt Monitoring Program does not sample at this time of year.
- Adult Salmon Counts
    - Bonneville
        - Low numbers of adult Coho and Steelhead.

- Chum
  - One chum was recorded in the last week.
  - Chum Passage: 154% of ten-year average
  - Chum Yearly Count: 511 individuals

- Lower Granite
  - Steelhead
    - Exclusively seeing Steelhead passage over the last week.
    - Total Steelhead: 19 – 70
    - Unclipped Steelhead: 9 – 23

Lamprey – Dave Swank, USFWS

- Nothing happening with the lamprey at this time, the season is long over.

d. Power System – *Tony Norris, BPA*

- Lots of water in system and relatively mild temperatures.
- Above average temperatures in the area so no issues on the Power side outside of many of the residential power issues that the utilities are struggling with, probably due to downed trees.

5. Set agenda for next meeting – *Wednesday, January 14, 2026*

Meeting Location: Microsoft Teams

Today's Attendees:

Agency	TMT Representative(s)
NOAA Fisheries	Kelsey Swieca
Oregon	Erick Van Dyke
Washington	Charles Morrill
Kootenai Tribe	
Confederated Tribes of Colville Reservation	Dennis Moore
Umatilla Tribe (CRITFC)	Tom Lorz, Pete McHugh
Yakama Nation	Tom Iverson
Bureau of Reclamation (BOR)	Chris Runyan, Eric Rothwell
Army Corps of Engineers (COE)	Doug Baus (Chair), Lisa Wright
US Fish & Wildlife Service	Dave Swank
Idaho	Jonathan Ebel
Montana	Brian Marotz
Spokane Tribe	
Nez Perce Tribe	
Warm Springs Tribe	
Confederated Salish and Kootenai Tribes	
Bonneville Power Administration (BPA)	Tony Norris, Ben Hausmann

Other Attendees (non-TMT members):

COE – Tiffany Stoeckig-Dixon, Jessika Solleder, Tom Conning, Leon Basdekas, Catherine Dudgeon, Chris Peery, Kasi Underhill, Leah Hamilton, Sam Beaurivage, Alexis Mills, Steven Lee, Dan Turner

BPA – Tammy Mackey, Carolina Andes

BOR – Ryan Fosness

Oregon DEQ – David Gruen

Washington Ecology – Thomas Starkey

DS Consulting – Emily Stranz (Facilitator), Colby Mills

CorSource – Andrea Ausmus (BPA note taker, Contractor)

NPCC – Kate Self

PGE – Phil DeVol

Clearing Up – K.C. Mehaffey

FPC – Erin Cooper, Noah Campbell

Ansergy – Bill Griswold

Chelan PUD – Jay Fintz, Brandon Carnahan

Energy EPS – Joshua Rasmussen

Avista – Mike Dillon, Patrick Maher, Steve Lentini

Grant PUD – Eva Stites

Unaffiliated – Cory Hill, Mike Buchko, Charles Pace