

## COLUMBIA RIVER TECHNICAL MANAGEMENT TEAM

September 11, 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](mailto:colby@dsconsult.co).*

**TMT Updates** – Peter Cooper, Reclamation, reported that Joel Fenolio has taken a new position with Reclamation at their Sacramento office. Chris Runyan, Eric Rothwell, and Peter will be representing Reclamation at TMT throughout this transition period.

**Review Meeting Summaries & Minutes** – TMT Members approved the facilitator's summary from the August 28 meeting, official meeting minutes will be reviewed at the next TMT meeting.

**Dworshak Operations** – Jessika Solleder, Corps, reported on operations at Dworshak Dam (DWR), updates are posted to the TMT website. Local weather in Lewiston, ID, has been warmer than average to start off September, however, is expected to trend cooler as the month progresses.

DWR is currently ramping down, releasing 5.6 kcfs, with a forebay elevation of 1,525 feet. Temperatures at Anatone are just under 71 degrees F and 66 degrees F at Orofino. In the Lower Granite (LWG) forebay, the 20-meter mark is staying within the 66-degree F range; around 67 degrees F at the 15-meter mark.

Regional forecasts over the next 10-days show the Columbia River basin heading into fall, with cooler and wetter temperatures throughout. Lewiston temperatures are forecasted to hang in the 70s and 80s, with some precipitation. In general, the weather is trending cooler and slightly wetter.

Temperature modeling results show the planned ramp down schedule through September 20, per the Dworshak Board. Jon Roberts, Corps, clarified that the last few days noted in the model might appear off due to the daily recalibration as the project continues to ramp down. The variability will even out as flows come down through the fall and temperatures are more consistent. Jessika noted that this would likely be the last official temperature model of the season, pending any special requests. The Corps Walla Walla will provide a final update at the next TMT meeting on where the project has ended once reaching minimum flows.

**Operations Review - Reservoirs:** Peter reported on Reclamation projects:

- **Hungry Horse (HH):** inflows continue to slowly recede, the 3-day average is 0.4 kcfs or about 58% of normal. Temperatures have been warmer than normal and dry, although a shift to cooler water conditions should start today. Outflows are currently 3.1 kcfs with a midnight elevation of 3,546.57 feet (13.43 feet from full). The project is drafting about 0.25 feet per day and is operating to get as close as possible to the September draft target. Reclamation anticipates ending about 2-3 feet above the draft target with forecasted wet conditions; outflows will hold flat with the rise in inflows, then as inflows drop outflows will continue to target Columbia Falls around 4,400 cfs.
- **Grand Coulee (GCL):** inflows yesterday were 84 kcfs, with a weekly average of 106% of normal. Outflows were 50 kcfs with a midnight elevation of 1,279.7 feet (10.3 feet from full). GCL met the August 31 target of 1,277 feet, including the 12-foot draft for flow augmentation and 1 additional foot for the Lake Roosevelt incremental storage program. GCL continues to

operate to meet downstream flow objectives and Reclamation anticipates the project filling above 1,283 feet by the end of September, in the 1,284-1,286-foot range by the end of October.

Aaron Marshall, Corps, reported on Corps of Engineers projects:

- **Libby (LIB):** midnight elevation was 2,452.5 feet, with inflows of 6 kcfs and outflows of 8 kcfs. LIB will continue holding 8 kcfs outflow while drafting to 2,449 feet at the end of September.
- **Albeni Falls (ALF):** midnight elevation was 2,061.97 feet, with inflows of 11 kcfs and outflows of 9.1 kcfs. ALF will continue to operate within the 0.5-foot range through September 18, then will begin the fall draft to around 2,060-2,061 feet at the end of September.
- **DWR:** midnight elevation was 1,525.0 feet, with inflows of 500 cfs and outflows of 5.7 kcfs.
- **LWG:** midnight elevation was 736.25 feet, with inflows of 21 kcfs and outflows of 21.4 kcfs. MOP operations have ended (as with other lower Snake projects) and the project is operating within the normal operating range.
- **McNary (MCN):** midnight elevation was 339.5 feet, with inflows of 96 kcfs and outflows of 86 kcfs.
- **Bonneville (BON):** midnight elevation was 75.1 feet, with inflows of 93 kcfs and outflows of 86 kcfs.

Leon Basdekas, Corps, reported that inflows at LIB have been higher than forecasted so the project is expected to come in high for the end of September elevation. Upon coordinating with local biologists, the Action Agencies will keep project outflows at 8,000 cfs, continuing into October as needed until meeting the 2,449 feet elevation; due to forecasted storms, uncertainty remains as to when the target elevation will be reached. ALF will start to draw down on September 23 to be at or above 2,060 feet at the end of the month, likely closer to 2,061 feet. Brian Marotz, MT, appreciated the efforts from the Corps to stabilize discharge below LIB, emphasizing the benefits to having more water than anticipated.

Jay Hesse, Nez Perce Tribe, noted for group awareness, that the raising of LWG pool elevation after the transition from MOP created complications for Treaty Fishers within the LWG pool. When the pool elevation was raised, fishing anchors were submerged, and small woody debris became entangled in nets.

*Water Quality:* Dan Turner, Corps, updated the group on the change in water quality standards (WQS) for fall; WA standards for fish passage spill are 120% TDG in the tailwater, and 115% in the downstream forebay. In the lower Columbia the OR WQS is 110% TDG. There have been a couple exceedances of the WQS, one downstream of MCN due to the transition to fall operations, and one downstream of John Day (JDA) due to a crane issue not allowing the closure of one of the two surface weirs. The Corps is working on crane repairs; the project is spilling 10 kcfs through the weir until it is finished. Finally, the CCIW gauge, directly downstream from BON, shows exceedances, which are due to high TDG created at the fish ladders when there is no dilution from other spill. These conditions are not representative of the river conditions. As such, this gauge will be seasonally decommissioned in the next couple of weeks.

*Fish:* Kelsey Swieca, NOAA, reported that juvenile fall Chinook are already steadily passing the lower Snake River projects in relatively low numbers; the index averaging about 144/day at LWG and 41/day at Little Goose (LGS). Passage downstream at BON is sporadic; as high as 158/day and as low as 0/day (index value, not direct count).

For adults, fall Chinook at BON were about 10,000 yesterday, less than half of the weekend passage. Total passage at BON is about 340,000, or 130% of the YTD 10-year average. A few thousand coho and steelhead have entered the system at BON each day over the past week. At LWG, fall Chinook and steelhead passage has experienced a dip but numbers are gradually coming up; fall Chinook passage is 184% of the YTD 10-year average, 109% for steelhead.

Dave Swank, USFWS, reported small numbers of adult lamprey trickling in; the run is almost over.

*Power System:* Ben Hausmann, BPA, reported that the power system is running smoothly, with some uncertainty around the timing of Canadian Treaty flows. Ben will inquire internally about an update to share with the TMT at a later date.

**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 on September 25, 2024, at 9:00 AM.**

**Columbia River Regional Forum  
Technical Management Team  
OFFICIAL MINUTES  
Wednesday, September 11, 2024  
Minutes: Andrea Ausmus, BPA (contractor, CorSource Technology Group)**

Today's TMT meeting was held via conference call and 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. Update on Members**

- Peter Cooper, Reclamation, reported that Joel Fenolio has officially taken a new position in their Sacramento office. Eric Rothwell, Chris Runyan, and Peter Cooper will be covering Fenolio's old position while they transition.

Members showed appreciation of Fenolio's time with TMT and wished him regards in his new endeavors.

**2. Review Summaries and Minutes**

a. Draft Summary for August 28 (minutes pending)

- Summary was approved.

**3. Dworshak (DWR) Temperature Augmentation Update – *Jessika Solleder, Corps-NWW***

a. NOAA NWS Climate Data Fall (Sept – Nov) – Lewiston, ID

- We have been seeing a warmer than average September.
- In the coming forecast this will begin to trend down toward the normal temperature range.

b. DWR Current Hourly Data

- Current Operation: In the September ramp down.
- Releasing: 5.6 kcfs
- Forebay Elevation: 1525 feet

c. Snake (Anatone) and Clearwater (Orofino) Rivers Temperature Data

- Anatone: ~71°F
- Orofino: ~66°F

- d. LWG Forebay Temperature String
  - 20m mark: ~66°F
  - 15m mark: ~67°F
- e. 10-Day Regional Weather Forecast (September 12 - 21)
  - The Columbia Basin is entering what we consider Fall with cooler and wetter temperatures.
  - This period continues throughout the 10-day forecast period.
- f. Weather Forecast for Lewiston, ID
  - Temperatures are hanging in the 70s and 80s.
  - Somedays there is a sprinkling of precipitation in the morning.
  - Trending cooler.
- g. Temperature Model Run Results – updated September 11 @ 8:40am
  - Last official temperature model.
  - LWG temperatures are trending closely to the DWR discharge.

Jay Hesse, Nez Perce, asked about the models' line for LWG Observed temperatures. He said that typically the model versus actual are aligned or are below the model results. He asked if Solleder could talk a little about the last few days and whether there was something unique in the modeling that has changed at this point. He said that it is something that he see to have reset itself but would like to know if it is a deviation that we should expect moving forward.

Jonathan Roberts, Corps, responded. He said as the Corps transitioned into the ramp down the model calibration is trying to recalibrate every single day. Because they have changed the outflow continuously each day it needs several days to pick up on the trend so that is what Hesse is seeing today. Roberts said that they have had about three to five days of continuous ramp down so the model is beginning to project that a little better at this point. He said that it is just a model stability item when consistently changing flows compared to, they have been doing, having a more gradual continuous flow.

Erik Van Dyke, OR, asked Roberts to clarify if he anticipated continuation of the variability moving forward in the modeling.

Roberts said that was correct, as the flows come down as well as the temperatures become more consistent with the gradual ramp down through Fall, we will see the model pattern back out a little more evenly. He said that we also had a couple days of unexpected heat, and they were changing flows, that is seen in the observed line, there are some up and downs there. This is due to having some heat on top of the lake and then with the closing and opening of the RSW a little in the morning and changing of generation on and off the observed line will move a little more drastically. This happens because: A. DWR has been changing flows; and B. The temperatures have been wide ranging in heat (up to 90 – 95°F). As we move forward into the 10-day there will be less

flow, but all the temperatures will be cooling down more consistently and this will be seen in the actual observed data with less jumping around with actual temperatures.

Van Dyke thanked Roberts and confirmed that this would be the last temperature model.

Roberts responded in the affirmative. He said by the time that we have TMT is two more weeks DWR will be down at the minimum flow. He said that they would still provide an update on where the temperatures are at, but they will not be able to continue doing the temperature model as the model is calibrated for ~5 kcfs outflow and higher at DWR. He said that TMT will be able to look at observed data and other information, but he did not anticipate another temperature run. He also did not expect any problems over the next ten days with the very favorable forecast.

Van Dyke asked if when they stop doing the model if they stop monitoring the 68°F from that point forward.

Roberts said that they monitor it year-round. He said that it is just at this point as we typically reach between September 13 and October 1, depending on how we are transitioning to Fall within the water year the natural temperature will come down to such a point the natural unregulated temperature, the Orofino, Salmon, Grand Ronde, Imnaha that are upstream of Anatone will all be low enough at that point to keep the river system below the 68°F mark at that point. Roberts said that they do not need to necessarily model any type of outflow at that point because it is going to be low enough for the rest of the year. He said that for this year it looks like it will transition close to around September 14 or 15 based on the current weather conditions.

Van Dyke thanked Roberts for sharing this information and he said that he appreciated the effort that everyone has put into this for this year and the many years before.

| *Charles Morrill, 09:15*

| *Thanks for the additional clarification Jon*

#### 4. Operations Review

##### h. Reservoirs

*Reclamation – Peter Cooper*

- Hungry Horse Dam (HGH)
  - Inflows (3-day average): 0.4 kcfs
    - Percent of Normal: 58% of average
    - Temperatures have been warmer than normal, and it has been dry.
    - There is a shift to cooler temperatures in the forecast, starting today, with some precipitation moving into the basin.
  - Outflows: 3.1 kcfs
  - Midnight elevation: 3546.57 feet
    - Feet from Full: 13.43 feet
    - Drafted: 0.25 feet/day

- Operations: Operating to get as close to the 20-foot draft target as possible as was coordinated by Chris Runyan (et. al.). Expect the inflows to rise with the rain coming from the tributaries. They will hold HGH flat on outflows as the tributaries rise and fall. Target Columbia Falls minimums.
  - BOR still anticipates being above the draft target with the wet conditions moving in.
  - Latest Projects: 2 – 3 feet
  - Columbia Falls: 4400 cfs
- Grand Coulee Dam
  - Inflows (9/10): 84 kcfs
    - Weekly average: 106% of average
    - Has come up from past weeks
  - Outflows: 50 kcfs
  - Midnight elevation: 1279.7 feet
    - Feet from Full: 10.3 feet
    - GCL met its August 31 Target, 12 foot of draft for flow augmentation and additional 1 foot for Lake Roosevelt Incremental Storage Program.
    - August 31 Target: 1277 feet
  - Operations: Continues to operate to meet downstream flow objectives. BOR anticipates GCL will fill >1283 feet by the end of September.

Charles Morrill, WA, asked Cooper what they are targeting and expecting for GCL elevations at the end of October.

Cooper said that they are anticipating that GCL will be somewhere in the 1284' to 1286' range end of October.

*Corps – Aaron Marshall*

- Libby Dam (Lake Koocanusa)
  - Avg. Inflows: 6 kcfs
  - Avg. Outflows: 8 kcfs
  - Current elevation: 2452.5 feet
  - Operation: Continue holding 8 kcfs while drafting toward end of September target.
    - September Target: 2449 feet

Leon Basdekas, Corps, provided more information on LIB flows. LIB flows have been higher than forecasted for a while, so they are going to be coming in high on their end of the September elevation. He said while talking to some of the local biologists he would rather see the outflow at LIB stay at 8 kcfs and stay at 8 kcfs until October as needed until LIB meets the 2449-foot September target. He said as of last week that looked like it would be about a week, with the new incoming storms this could change. Basdekas said that this is a lot of uncertainty with that right now.

- Albeni Falls (Lake Pend Oreille)
  - Avg. Inflows: 11 kcfs
  - Avg. Outflows: 9.1 kcfs
  - Midnight elevation: 2061.97 feet
  - Operation: Operating with the half-foot summer range of 2061.75 to 2062.25 feet. ALF will continue to hold this range through September 18 then it will begin the Fall draft down to around 2060 to 2061 feet at the end of September.

Basdekas added more information about ALF. He said that they would be holding the band through September 22 and start the drawdown on September 23 to be at or above 2061' by the end of the month.

- Dworshak Dam
  - Avg. Inflows: 500 cfs
  - Avg. Outflows: 5.7 kcfs
  - Forebay elevation: 1525.0 feet
- Lower Granite Dam
  - Avg. Inflows: 21 kcfs
  - Avg. Outflows: 21.4 kcfs
  - Avg. Forebay elevation: 736.25 feet
  - Operations: MOP operations have ended. LWG and other Lower Snake Projects are operating within their full normal operating range.
- McNary Dam
  - Avg. Inflows: 96 kcfs
  - Avg. Outflows: 86 kcfs
  - Avg. Forebay elevation: 339.5 feet
- Bonneville Dam
  - Avg. Inflows: 93 kcfs
  - Avg. Outflows: 86 kcfs
  - Avg. Forebay elevation: 75.1 feet

Stranz commented that it feels good to be in the season of storms and that it is very welcome.

Brian Marotz, MT, said that he wanted to thank Basdekas and Marshall for stabilizing the discharges below LIB. He said that it had been around 8 kcfs straight instead of ramping down gradually which is great for keeping the ripple habitat wetted. He said that the anglers are happy with that. He said thank you for the great operation. He said that he has been please that they have more water than anticipated moving ahead, it should make a nice transition going into the descending limb late after September.



Hesse said he wanted to highlight the LWG release from MOP conditions that occurred since TMT last met. He said that raising of the pool elevation created some complications for the ongoing treaty fisheries in the LWG pool. Those complications were a result of:

1. Not anticipating the pool going up and some of the nets being anchored at lower elevations and the anchor points were submerged and some of the attachments were compromised.
2. Ongoing woody debris that is refloated with the pool is elevated. There is a significant amount of that debris that is along the shoreline and not floating during the Summer months and that is getting caught in the fishing gear and making it challenging for the sport fishery conditions. Sport fishery can manage or learn to live with it, but it is not ideal. For the Tribal nets the additional woody debris is problematic and adds a whole layer of complexity.

He said this comment is for awareness. They are now thinking through what options to manage this in the future. Hesse said that he wanted to share this complication with TMT.

i. Water Quality – *Dan Turner, Corps*

- September
  - Change in the Water Quality Standards.
  - Lower Snake River
    - Washington: 120% TDG in the tailwater and 115% in the downstream forebays.
  - Lower Columbia River
    - Oregon: 110% TDG
    - Early Spring the Corps asked Oregon DEQ for an exception for the planned surface spill operations and received that exception. The exception was just for March.
- TDG
  - McNary
    - Downstream – transition to Fall operation there was a one-hour exceedance.
  - John Day
    - Downstream – not been able to close the surface weir due to a crane issue.
    - Right now, there is 10 kcfs spill through the surface weir.
    - The Corps is working to get the crane repaired. They are finding it difficult to find the parts at the moment to repair.
  - CCIW
    - Gauge downstream of BON spillway.
    - Exceedances because the fish ladders produce a lot of TDG, and they are not being diluted with any additional spill.

- This gauge is seasonally decommissioned in the next couple of weeks and is not reflective of conditions on the river.

Kelsey Swieca, NOAA Fisheries, asked if the Oregon standard is a one-hour max or if it is a twelve-hour. She asked if he could remind her of the time step.

Turner said that it is instantaneous so one hour max.

Van Dyke said he was curious in the Corps' request if they considered covering everything that is in RCBA (Resilient Columbia Basin Agreement) or was it not added into their request.

Turner said that they had included all planned surface spill operations in that request but Oregon only provided an exception for March.

j. Fish

*Salmon – Kelsey Swieca, NOAA*

- Juveniles (Subyearlings)
  - Fall Chinook
    - Steadily passing the Lower Snake River projects in relatively low numbers.
    - Lower Granite: 144/day
    - Little Goose: 41/day
    - Bonneville: 158 – 0/day
      - Sporadic
      - Index values and not direct counts.
- Adult Salmon Counts
  - Bonneville
    - Fall Chinook:
      - Yesterday count: 10,000
      - Down from nearly double (~20k) the past weekend.
      - Total passage: 340,000
      - 10-year YTD average: 30%
    - Coho/Steelhead
      - A few thousand enter the system per day over the last week
  - Lower Granite
    - Fall Chinook
      - Experiences a dip last week
      - 10-year YTD average: 184%

*Lamprey – Dave Swank, USFWS*

- Adult Lamprey
  - Small amounts of adult lamprey are still trickling in. Close to the end of the run.
  - Not much has significantly changed.

k. Power System – *Ben Hausmann, BPA*

- Things are going smoothly.
- There is some uncertainty with inflow with the timing of the Canadian Treaty being outstanding.

Tom Lorz, Umatilla, said he would not consider having the whole powerhouse at McNary drop out to be smooth. He asked if BPA was able to adapt. He asked if the system had the flexibility to be able to take on the near to ten hours of loss of load.

Hausmann said that he felt that McNary operators did a good job with that scenario. He said that it was a big deal to have that happen and rare as well. He said that they went a little bit over 1% for a short time but other than that it was not that much of a hiccup. He offered to get Lorz more detail on how it was absorbed. Hausmann said that he thought for BPA it was not much of a consternation, but it was more so on the Corps end as the scrambled and had people there after hours.

Lorz said that it was great, and he was just curious because he had not seen an emergency declaration or anything like that. He said that it would be great at the EOY to see what kind of project operations, like turbine ops, specifically what we had to do to keep things going.

Hausmann said that they would be able to pull something together. He said that he would talk to some people to pull together a timeline and how things went.

Stranz asked Lorz was expecting this at an EOY review or a circle back at TMT.

Lorz said that if people who read the FPP too closely recognize there is supposed to be an EOY report to NOAA about deviations on turbine operations. Lorz said that he had always wondered why that was just for NOAA. He said that he was hoping that it could also be made available to the rest of the fish managers.

Stranz asked if it was the Corps and BPA that provided that to NOAA.

Hausmann said that he thought it was just a BPA thing.

Stranz asked if Hausmann could look to see if that would be something that could be shared with all of TMT.

Hausmann said that he would inquire.

**5. Set agenda for next meeting – September 25, 2024**

- a. Water Management Plan – *Baus*
- b. Chum Update in preparation for November 1 – *Morrill*
- c. Final Dworshak Update – *Roberts*
- d. Hungry Horse Update – *Cooper*

**Today’s Attendees:**

<b>Agency</b>	<b>TMT Representative(s)</b>
NOAA Fisheries	Kelsey Swieca, Trevor Conder
Oregon	Erick Van Dyke
Washington	Charles Morrill
Kootenai Tribe	
Colville Tribe	Dennis Moore
Umatilla Tribe	Tom Lorz (CRITFC)
Yakama Nation	Keely Murdoch
Bureau of Reclamation	
Army Corps of Engineers	Doug Baus (Chair), Lisa Wright, Aaron Marshall
US Fish & Wildlife Service	Dave Swank
Idaho	Jonathan Ebel
Montana	Brian Marotz
Spokane Tribe	
Nez Perce Tribe	Jay Hesse
Warm Springs Tribe	
Confederated Salish and Kootenai Tribes	
BPA	Ben Hausmann

Other Attendees (non-TMT members):

COE – Dan Turner, Leon Basdekas, Tiffany Dixon, Tom Conning, Jessika Solleder, Jonathan Roberts

BOR – Peter Cooper

Washington Ecology – Thomas Starkey

DS Consulting – Emily Stranz (Facilitator), Colby Mills

CorSource – Andrea Ausmus (BPA note taker, Contractor), *notes only*

Clearing Up – K.C. Mehaffey

Energy Keepers – Eve James

Columbia Basin Bulletin – Mike O’Bryant

Chelan PUD – Jay Fintz, Lance Beyer

Snohomish PUD – Mike Shapley

Douglas Co. PUD – Andrew Gingerich