

COLUMBIA RIVER TECHNICAL MANAGEMENT TEAM

January 4, 2023

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: <http://pweb.crohms.org/tmt/agendas/2023/>. Suggested edits for the summary are welcome and can be sent to Colby at colby@dsconsult.co.

Review Meeting Summaries & Minutes – TMT Members will review the December 14 meeting minutes and facilitator's summary at the next meeting.

Chum Operation – Doug Baus, Corps, reported on the December 14 TMT coordinated chum operation, noting that the incubation phase of the operation began on December 31, 2022, and will end on April 10, 2023, with the start of spring spill at Bonneville Dam (current incubation operation is posted to the TMT website). Any changes to the end date would be coordinated through the TMT. The incubation operation maintains a Bonneville Dam minimum tailwater elevation of 11.8 feet at all hours.

Today at 0700 hours, project tailwater elevation was 12.6 feet, with a total outflow of 134 kcfs. Doug noted that the project has maintained the minimum tailwater elevation since start of the incubation phase of the operation on December 31, 2022.

The NWRFC inflow forecast and for the next 10-days range from a low of 120 kcfs to a high of 150 kcfs. The 10-day forecasted period shows a steady influx in precipitation in western Washington and Oregon, although still below average for this time of year. Similarly, the 10-day QPF shows localized areas of above average precipitation in eastern Oregon and Idaho, however, many areas are still below average. The NWRFC climate forecasts for both the 6-10 and 8-14-day outlooks show a probability of above average temperatures and precipitation.

Doug noted that the annual NWRFC Water Supply Briefing will occur tomorrow and can be accessed via their homepage. The Briefing will be recorded for those who cannot attend live.

Tony Norris, BPA, noted a significant precipitation event at the end of December 2022, with Willamette River flows peaking at the same time and unregulated river inflow. This resulted in the daytime tailrace elevation rising above 13 feet.

Charles Morrill, WA, reported that field crews were able to get out at the end of December and beginning of January; crews did not observe new redds during the high-water period. A few live chum were in the Hamilton Creek area, however, WDFW believes spawning is wrapped up and that the incubation operation should go forward as planned.

Operations Review – Reservoirs: Joel Fenolio, Reclamation, reported on Bureau of Reclamation projects:

- **Hungry Horse:** midnight elevation was 3,532.6 feet (17 feet lower than this time last year); with average inflows of 100 cfs, and releases of 2,100 cfs to maintain the Columbia Falls minimum. Low base flows are about 15 feet lower than last year; this is not a concern considering elevation requirements needed for Kneif Creek culvert repair in March (3,520 feet).
- **Grand Coulee:** midnight elevation was 1,284 feet; with inflows averaging 88,000 cfs and releases yesterday at 87,000 cfs.

Joel confirmed for Kirk Truscott, Confederated Tribes of the Colville Reservation, that the target for drum gate elevation is 1,255 feet (5-foot band below for operating), and that FRM elevations will be out next week.

Lisa Wright, Corps, reported on Corps of Engineers projects:

- **Libby:** midnight elevation was 2,419.1 feet, with average inflows of 2.8 kcfs, and outflows of 4 kcfs;
- **Albeni Falls:** midnight elevation was 2,051.5 feet, with average inflows of 18.5 kcfs, and outflows of 14.6 kcfs;
- **Dworshak:** midnight elevation was 1,517.3 feet, with average inflows of 2.3 kcfs, and outflows of 1.7 kcfs;
- **Lower Granite:** average outflows of 22 kcfs;
- **McNary:** average outflows of 117.5 kcfs; and
- **Bonneville:** average outflows of 133.2 kcfs.

Aaron Marshall, Corps, provided an update on the dredging operation in the Lower Granite and Ice Harbor pools. The contractor is mobilizing this week, with dredging expected to begin on Saturday in the Clearwater and Snake River confluence area. Once that dredging is complete, the contractor is expected to move down to the Ice Harbor tailrace area in late February for dredging in the navigation lock approach area. Aaron was not able to provide a more specific timeframe estimate at this time.

Water Quality: Dan Turner, Corps, reported that water quality is generally below 110% TDG, with the exception of just downstream of Lower Monumental Dam, which is operating at speed-no-load due to a line outage that is scheduled to occur through January 7. Turbine operations and TDG levels will return to below TDG standards once the line outage is completed.

Fish: Trevor Conder, NOAA, reported that most counting facilities are down for the season and there is little fish movement in the system right now. There is some adult passage at Bonneville, The Dalles and McNary with counts in the fish ladder. Steelhead are the main fish passing, declining in range over the past week from 21-4 at Bonneville, with a few coho and 1 Chinook adult counted. These are declining and not expected to occur much longer. The Dalles and McNary had few steelhead, passing in the single digits, with a few coho and a couple Chinook counted.

Dave Swank, USFWS, provided a summary of Bull Trout counts from 2022 at Lower Granite, Little Goose, and Lower Monumental dams. Lower Granite reported 7 ladder counts (June -July), and 2 detections of PIT-tagged fish that were later found on Badger Island (likely from avian predation). Data were not readily available on the size of the 2 PIT-tagged fish at the time of predation. Little Goose reported 8 ladder counts (April-July), Lower Monumental reported 1 (mid-July). Dave noted that winter video counts from the Corps are still pending from Little Goose and Lower Monumental. This is a requirement of the 2020 BiOp.

Power System: Tony reported a significant cold spell and precipitation event at the end of 2022, resulting in increased flow on the Snake River. BPA did not utilize the Zero Generation operation much throughout this period. Tom Lorz, CRITFC/Confederated Tribes of the Umatilla Indian Reservation, noted concerns from Tribal sturgeon tagging crews regarding flow fluctuations during daylight hours in the John Day tailrace and The Dalles pool. Tony and Scott Bettin, BPA, will follow-up with Tom with more information, however, expected that the flow fluctuations were from the unregulated flows, which are expected to drop off.

Questions and Comments from Public: Kate von Reis Baron, Chelan PUD, asked if the operation at Grand Coulee will continue to support chum spawning and for how long? Joel reported that Grand Coulee will be operating to support the chum tailwater minimum through April 10. Sharon Liebert, Douglas PUD, asked about timing for Grand Coulee drum gate maintenance; Joel reported that 2023 is a drum gate maintenance year and drum gate maintenance is scheduled to occur from mid-March to early May.

The TMT meeting schedule was updated to better fit timing of the release of the official water supply forecasts. Upcoming meetings will be on January 25, February 8, February 22, March 8, and March 22.

The next scheduled TMT meeting is on January 24, 2023 at 9:00 AM.

**Columbia River Regional Forum
Technical Management Team
OFFICIAL MINUTES
Wednesday, January 4, 2023
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. Review Meeting Summaries & Minutes – December 14

- Will wait until January 25, 2023.

2. Chum Operation – Doug Baus, Corps; Joel Fenolio, BOR; Kelsey Swieca, NOAA Fisheries; Tony Norris, BPA

Check in on Incubation Phase of Chum Operation:

- Start – December 31, 2022
- End – no later than April 10, 2023 (concurrent with start of spring spill at Bonneville Dam)
- * Any date changes will be coordinated with TMT.

a. Bonneville Dam - Hourly Data

- Operating with a minimum tailwater elevation of 11.8 feet all hours
- Implemented and maintained from the start of the incubation phase of the operation on December 31, 2022.
- Hourly data today (Wednesday, January 4, 2023) at hour ending 0700:
 - Project elevation: 12.6 feet
 - Outflows: 134 kcfs

b. Bonneville Dam – 10-Day Inflow Forecast – *Doug Baus, Corps*

- Low: 120 kcfs
- High: 150 kcfs

c. NWRFC 10-Day Meteorological Forecast – *Doug Baus, Corps*

- Steady influx of precipitation focused primarily in western Washington and western Oregon.
- For this time of year, the precipitation is still below average.

d. NWRFC Forecasted Precipitation Summary

- Above average precipitation in eastern Oregon and eastern Idaho
- Below average precipitation in the Cascades (Oregon and Washington) of 0-2 inches below average.
- QPF showing steady precipitation
- Localized areas of above average precipitation
- Generally below average precipitation

e. NWRFC Climate Forecast – Doug Baus, Corps

- 6-10 day, as well as 8-10 day, show probability of above average temperatures and above average precipitation.

RFC gives a monthly water supply briefing (next one occurs tomorrow January 5, 2023) and registration is available on their website: <https://www.nwrfc.noaa.gov/rfc/>

Kelsey Swieca, NOAA, added that RFC meetings are recorded and available for those who cannot attend.

Tony Norris, BPA, shared that toward end of December there was a significant precipitation event that took the tailwater to a daytime level of 14 feet. There was no way to control this with Willamette peaking about the same time as well as inflows. Norris notes that the operation is maintaining the 11.8 foot minimum.

f. Chum Salmon Spawning Ground Surveys – Charles Morrill, WA

- Morrill reported survey findings.
- The survey crew was able to get out at the end of December but did not find much due to poor visibility (high water period).
- The crew was able to get out again but did not find any redds that would have been deposited during the high water event.
- There might be a few chum in Hamilton Creek but the operation is moving forward as planned.

3. Operations Review

g. Reservoirs

Reclamation – Joel Fenolio

- Hungry Horse Dam
 - Midnight elevation: 3532.6 ft.
 - ~15 feet lower than last year

- Experience low winter rates
 - Average Outflows: 2.1 kcfs (Columbia Falls minimums)
 - Average Inflows: 100 cfs
 - Lower than last year but considering going to 3520 ft. for culver repairs this is not a bad thing.
- Grand Coulee Dam
 - Midnight elevation: 1284 ft.
 - Inflows: 80 kcfs
 - Outflows: 87 kcfs

Corps – Lisa Wright

- Libby Dam
 - Midnight elevation: 2419.1 ft.
 - Inflows: 2.8 kcfs
 - Outflows: 4 kcfs
- Albeni Falls
 - Midnight elevation: 2051.5 ft.
 - Inflows: 18.5 kcfs
 - Outflows: 14.6 kcfs
- Dworshak Dam
 - Midnight elevation: 1517.3 ft.
 - Inflows: 2.3 kcfs
 - Outflows: 1.7 kcfs
- Lower Granite average outflows: 22 kcfs
- McNary average outflows: 117.5 kcfs
- Bonneville average outflows: 133.2 kcfs

Dredging Lower Snake – Aaron Marshall, Corps

- Update on dredging in Lower Granite pool
- Contractor mobilizing this week and expects to begin dredging on Saturday (January 7, 2023) at the Clearwater – Snake River confluence area.
- After completion the contractor is expecting to move down to the Ice Harbor tailrace navigation lock area in late February.

Erick Van Dyke, OR, asked how long they expect the navigation channel above Lower Granite to take to be returned to the 14 ft. depth throughout the channel.

Marshall does not have that information available at this time but he expects them to be done by late February.

h. Water Quality – Dan Turner, Corps

- All projects are below 110%, with the exception downstream of Lower Monumental Dam.
- Lower Monumental has been operating one unit at speed-no-load for station service due to a line outage scheduled to occur through January 7, 2023.
- Once the line outage is completed and the turbine load is back to normal the TDG should be back under 110%.

i. Fish – Kelsey Swieca, *NOAA Fisheries*

Not a lot of information because most facilities are shut down for maintenance.

- Adults (still have ladders open and counts occurring at Bonneville, The Dalles, and McNary)
 - Bonneville
 - Main fish passing are steelhead.
 - Ranging 21-24 steelhead counted with numbers declining.
 - There are a few coho and one Chinook but the numbers are definitely declining.
 - The Dalles
 - Very few steelhead passing.
 - McNary
 - Very few – single digits of steelhead passing.
 - A few coho and Chinook were counted.

j. Bull Trout – Dave Swank, *US Fish and Wildlife*

- Bull Trout sightings at three projects in the Snake River.
- Lower Granite
 - Seven bull trout in ladder counts (occurred June through July)
 - Two detections of PIT tagged fish that appear to be different than ladder counts.
 - One tagged at the adult trap in May.
 - The other was tagged Asotin Creek (2021) and then detected in spillway PIT array in May 2022.

- Both detected on Badger Island (Columbia downstream of the confluence of the Snake) last fall as mortalities from (almost certainly) avian predation.
- Little Goose
 - Eight reported in the ladder counts
 - Four in April
 - One in May
 - One in June
 - One in July
- Lower Monumental
 - One bull trout reported in the ladder counts from mid-July
- USFWS is still waiting on counts from the Corps of last winter video counting during the season there is not typically counting. This was to be done at Little Goose and Lower Monumental.
- It is a requirement of the last BiOp.
- The video recording is done but USFWS is waiting on the counts.

Morrill asked about the mortalities' sizes and life stages.

Swank said that there should be data available but does not have the information at hand.

Morrill added that it would be interesting to know.

k. Power Report – Tony Norris, *BPA*

Air temperatures moderated over the last week and were coupled with significant precipitation and a resulting increase in streamflow. With the higher flows and moderate temperature, the zero generation flexibility was not used during this period. It is notable that the zero generation flexibility is valuable even when not used. The ability to use this flexibility to adjust to real-time conditions is valuable to maintaining a reliable power system.

Tom Lorz, Umatilla Tribe/CRITFC, asked in respect to an email he received from tribal fishers participating in sturgeon tagging at the John Day tailrace and The Dalles pool who have noticed flow fluctuations. Lorz said that he assumes this is due to high flows. He asked if the flow is expected to settle down.

Norris said that the unusual flows are due to unregulated flows and would calm down.

Bettin asked how long the fishers would be out tagging.

Lorz responded that they are tagging to the end of next week.

4. Public Comments:

Kate von Reis Baron, Chelan PUD, asked about whether the operation at Grand Coulee is supporting the chum operation and how long it is planning on continuing. She also asked about whether 2023 is a year of no drum gate maintenance.

Norris responded that the operation for chum tailwater minimum runs through April 10, 2023.

Fenolio shares that 2023 is a drum gate year at Grand Coulee.

Kirk Truscott, Colville, asked what elevation is required for the drum gate maintenance.

Fenolio replied with a maximum of 1255 feet with a 5 foot band for operating.

Truscott asked when the FRM elevations would be available.

Norris replied next week.

Sharon Liebert, Douglas PUD, asked what time period the drum gate maintenance will occur.

Fenolio responded that it typically happens between mid-March and May.

Norris added that all this information is available in the Water Management Plan.

Jonathan Ebel, ID, asked whether the TMT schedule could be modified to align with the official water supply forecast releases. This is something that was discussed in the past.

Stranz responded that the calendar has been updated to align better with the forecast. Moved the second January meeting from January 18 to January 25.

5. Set agenda for next meeting – January 25, 2023

- a. Chum Operations
- b. Official Water Supply Forecast

Today's Attendees:

Agency	TMT Representative(s)
Army Corps of Engineers	Doug Baus (chair), Lisa Wright, Julie Ammann
Bonneville Power Administration	Tony Norris, Scott Bettin
Bureau of Reclamation	Joel Fenolio
NOAA Fisheries	Trevor Conder, Kelsey Sweica
US Fish & Wildlife Service	Dave Swank
Washington	
Oregon	Erick Van Dyke
Idaho	Jonathan Ebel

Montana	Brian Marotz
Nez Perce Tribe	Jay Hesse
Umatilla Tribe/CRITFC	Tom Lorz
Colville Tribe	Kirk Truscott
Warm Springs Tribe	
Kootenai Tribe	
Spokane Tribe	

Other Attendees (non-TMT members):

Corps – Aaron Marshall, Dan Turner, Alexis Mills, Ashlynn Tate, Scott St. John, Greg Hoffman, Catherine Dudgeon

BPA – Ben Hausmann

NOAA – Chris Magel

DS Consulting – Emily Stranz (Facilitator), Colby Mills

BPA – Andrea Ausmus (note taker, Contractor with CorSource Technology Group)

EWeb – Marciana Rosales

Oregon DEQ – David Gruen

Snohomish PUD – Jesse Pruess

Douglas PUD – Sharon Liebert

Chelan PUD – Kate von Reis Baron

Clearing Up – KC Mehaffey

Energy Keepers – Eve James