

## COLUMBIA RIVER TECHNICAL MANAGEMENT TEAM

August 11, 2021

Facilitator's Summary

Facilitator: Donna Silverberg; Notes: Colby Mills

*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. These notes are not intended to be the "record" of the meeting, only a reminder for TMT members. Official minutes can be found on the TMT website: <http://pweb.crohms.org/tmt/agendas/2021/>.*

### Review Meeting Summaries & Minutes

TMT Members approved official meeting minutes for the June 30, July 2 and 7 meetings, and the facilitator's summary for August 4.

### Dworshak Dam Operations

Willow Walker, Corps, reported on operations at Dworshak Dam: The region is heading into another heat wave, with warm temperatures during the day and cooler at night. Thursday into Saturday will see hot daytime temperatures with no cooling relief at night and no precipitation. Sunday will cool down, with rain passing through the region to help bring nighttime and river temperatures back down.

Temperatures in the Snake and Clearwater have been between 69-70 degrees F. Since Doble testing at Lower Granite started on August 9, the open RSW, combined with cooler temperatures before the heat wave and cool water from Dworshak, have helped stratification efforts in the pool at the 15-20-meter mark (level from which traditional spillways pull water). With Doble testing scheduled to end on August 12, more generation will pull cold water from the 25-30-meter mark to help cool things down further.

Throughout the heatwave, the Lower Granite tailwater will stay higher around the 69.5-degree F mark before natural conditions and extra generation will bring temperatures closer to 68 degrees F. Willow noted that the Corps Walla Walla team is monitoring temperatures at the Lower Granite adult trap and preparing for the trap to open on August 18; the tailrace is expected to be below 68 degrees F by that time.

Operational scenarios for RSW spill vs deep spill through traditional spillways were provided based on conversations with TMT members. The project likely will operate between the two models (a difference of about 0.5-degree F), depending on natural conditions and timing of when the RSW is open. Also reviewed was the difference between 7 kcfs spill vs 9 kcfs spill; the difference is less than 1/10 of a degree, which is outside of the model sensitivity.

Willow noted long-term projections for exceeding 21 kcfs at Lower Granite, with contingencies in case the RSW were to close. Lower Granite inflows are currently around 22.5 kcfs, with the 10-day average around 23 kcfs.

### Sockeye Conversion

Jonathan Ebel, ID, reported that Idaho is not tracking sockeye in the hydrosystem at this point; only 2 have been trapped in the Stanley Basin and they are waiting for more to show up. More fish are expected to arrive in Redfish Lake and the Sawtooth weir between now and October. Claire McGrath, NOAA, added that nothing has changed from last week; conversion from Bonneville to Lower Granite remains at 25%, and is not expected to change much.

### Operations Review

*Reservoirs:* Joel Fenolio, BOR, reported on Bureau of Reclamation projects:

- **Hungry Horse:** midnight elevation was 3,556.85 feet, with inflows of 900 cfs, and outflows of 2,000 cfs; releases will increase up to 2,200 cfs by Friday night to backfill for Columbia Falls. There was 1.5 inches of rain over the weekend, although operating close to the Columbia Falls minimum was delayed.
- **Grand Coulee:** midnight elevation was 1,286.8 feet, with inflows of 108 kcfs, and outflows of 103 kcfs, Current operations are targeting 1,277 feet by the end of the month.

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

- **Libby:** midnight elevation was 2,453.8 feet, with average inflows of 7 kcfs, and outflows of 7 kcfs;
- **Albeni Falls:** midnight elevation was 2,062.2 feet, with average inflows of 9 kcfs, and outflows of 7.6 kcfs;
- **Dworshak:** midnight elevation was 1,555.6 feet, with average inflows of 1 kcfs, and outflows of 8.6 kcfs;
- **Lower Granite:** average outflows of 24.2 kcfs;
- **McNary:** average outflows of 140.5 kcfs; and,
- **Bonneville:** average outflows of 134.2 kcfs.

*Water Quality:* Alexis Mills, Corps, reported that all gauges are operational and TDG values are within the water quality standards.

*Fish:* Claire reported that Lower Granite and Little Goose are both seeing increases in passage of sub-yearling Chinook since August 1; passage index at both projects on August 9 was about 9,000 per day.

Adult sockeye passage at Bonneville YTD is 151,000, or 49% of the 10-year average. They continue to move upstream through the lower Columbia at a similar rate. McNary and the Lower Snake River projects are seeing very low rates of passage, in the single digits. Claire noted that the mid-Columbia counts look off; she will dig into this further. A memo on the Upper Columbia River unlisted sockeye conversion is available on the FPC website; conversion is slightly below average, except for the Wenatchee group from Bonneville to Rock Island where it is substantially lower than average.

Fall Chinook at Bonneville are picking up, at 60% of the 10-year average. Steelhead numbers are still very low and passage has not picked up; almost 19,000 YTD, or 20% of the 10-year average, and 24% of the 10-year average for wild. This remains a concern.

Large amounts of shad are passing through the system this year; at Bonneville YTD passage is 166% of the 10-year average, and closer to 200% of average at Lower Granite. These numbers may be causing some problems at the traps, or may have affected ladder counts – NOAA will follow up with project staff and ask.

At Lower Granite, a couple of sockeye still are trickling in, with YTD passage at 82% of the 10-year average. Summer Chinook are at 5,500 YTD, or 44% of the 10-year average. This passage rate is one of the lowest rates for summer Chinook in 20 years. Total steelhead passage YTD is 31% of the 10-year average, with wild at 43% of the 10-year average. Fall Chinook and steelhead numbers will need to be monitored closely.

Dave Swank, USFWS, reported adult Pacific lamprey passage at Bonneville remains better than last year, but still well below the 10-year average, with just over 19,000 YTD. Dave noted that the lamprey data table on the FPC homepage doesn't include all of the lamprey passing through the system at night. Also, 50% pass through the lamprey passage structure and those numbers are compiled at the end of the season. Dave noted that the daytime numbers are indicators, but the lamprey story is more complex. Regarding the amount of adult lamprey transported and released upriver, Tom Lorz, Umatilla Tribes/CRITFC, noted that all Tribes are at or slightly above the lamprey numbers allocated through prior agreements.

*Power System:* Tony Norris, BPA, reported that wind generation in the balancing authority has dropped, as is typical with high pressure systems. No issues are expected with the hot weather heading into Saturday, although extreme weather can be harder on equipment and increase demand for energy. BPA is ready and expects to meet all energy needs for the region. Tony clarified that California fires are not affecting BPA's ability to operate the hydrosystem at this time.

**Public questions or comments:** There were no questions or comments from members of the public.

**The next scheduled TMT meeting is a conference call on August 18, 2021 at 9:00 AM.**

*This summary is respectfully submitted by the DS Consulting Facilitation Team. Suggested edits are welcome and can be sent to Colby at [colby@diconsult.co](mailto:colby@diconsult.co).*

## **Columbia River Regional Forum**

### **Technical Management Team**

### **OFFICIAL MINUTES**

**August 11, 2021**

**Minutes: Melissa Haskin, BPA (contractor, FLUX Resources)**

Today's TMT web meeting was chaired by Doug Baus, Corps, and facilitated by Donna Silverberg, DS Consulting. See the end of these minutes for a list of attendees.

#### **1. Review Meeting Summaries & Minutes**

The 6/30, 7/2, and 7/7 official minutes and 8/4 facilitator summary were approved with no additional edits.

#### **2. Dworshak Dam Operations – Willow Walker, Corps NWW**

The next few days show another incoming heat wave. Thursday through Saturday, temperatures will rise both in the day and night. Precipitation is not expected with this heat wave. Temperatures will recede and rain will likely enter the region on Sunday, providing some relief both to nighttime temperatures and river temperatures. The cooling trend is expected to continue in the days following Sunday.

Water temperatures in the Snake and Clearwater rivers have been around 69-70°F.

The Lower Granite outage for Doble testing began on August 9. Keeping the RSW open helped to pull hot water from the surface of the river in the forebay. Stratification is being maintained and water at the 20-meter depth is starting to cool down thanks to water from Dworshak Dam sent earlier this week. Doble testing will conclude tomorrow, meaning that more generation will be available and should help with temperatures at the 25 to 30-meter depth. The Lower Granite tailwater will remain at 69.5°F for some time. Natural conditions and generation will cool the tailwater to 68°F before the trap opens on August 18.

Walker took the TMT through two operational scenarios: 1) spill through the RSW, versus 2) spill through traditional spillbays. TMT members had previously asked Walker for this comparison. Walker said the project will operate within the two operations based on flow conditions and RSW closure criteria. She also noted that spill rates of 7 kcfs versus 9 kcfs would result in less than a tenth of a degree F of a difference.

Brian Marotz, MT, asked about current and long-term flows at Lower Granite. Walker noted long-term models show the project exceeding 21 kcfs. Flows are currently ~22.5 kcfs and over the next 10-days, they are expected to remain near 23 kcfs.

#### **3. Sockeye Conversion - Jonathan Ebel, ID**

Claire McGrath, NOAA, noted there has not been any change since last week's meeting as far as adult sockeye in the system. As she noted last week, conversion from Bonneville Dam to Lower Granite is 25% and little change is expected.

Ebel noted that ID is waiting for sockeye to show up in the Stanley Basin. Thus far, two fish have been trapped and more should arrive at Redfish Lake as October approaches.

#### 4. Operations Review

##### *4a. Reservoirs – Joel Fenolio, Reclamation, and Lisa Wright, Corps*

**Reclamation projects: Hungry Horse** – Midnight elevation 3,556.85 ft, inflows have been about 900 cfs and releases ~2 kcfs. Reclamation plans to step that up tomorrow to 2.2 kcfs. Columbia Falls received about 1.5-inches of precipitation this past weekend. This would have put the project operating close to Columbia Falls minimums but that has been delayed. **Grand Coulee** – Midnight elevation 1,286.8 ft., inflows have been at 108 kcfs and releases near 103 kcfs. Reclamation anticipates being at 1,277 ft. by the end of the month.

**Corps projects: Libby** – Midnight elevation 2,453.8 ft., yesterday’s average inflows 7 kcfs and outflows 7 kcfs. **Albeni Falls** – Midnight elevation 2,062.2 ft., inflows 9 kcfs and outflows 7.6 kcfs. **Dworshak** – Midnight elevation 1,555.6 ft., inflows 1 kcfs and outflows 8.6 kcfs. **Lower Granite** – outflows 24.2 kcfs. **McNary** – outflows 140.5 kcfs. **Bonneville** – outflows 134.2 kcfs.

##### *4b. Water Quality – Alexis Mills, Corps*

All gages are working and TDG is below the water quality standards.

##### *4c. Fish – Claire McGrath, NOAA*

**Juveniles:** Subyearlings are passing Lower Granite and Little Goose in increasing numbers. On August 9, about ~9,000 passed the projects.

**Adults:** At Bonneville, sockeye have been passing at 10 to 60 per day, with YTD totals of 151,000, which is ~49% of the 10-year average. They are continuing to move through the Lower Columbia at similar rates but are passing McNary and other Snake River projects in substantially lower rates (single digits each day). McGrath also noted that mid-Columbia numbers seem to be off and she plans to dig into those data, as FPAC has done historically. At FPAC’s request, the FPC released a memo for unlisted stock in the Okanogan River, a tributary of the Columbia River. Conversion was slightly below average except for one group, which was substantially below normal – the Wenatchee species (from Bonneville to Rock Island). Fall Chinook passage is picking up at 130 to 650 passing the project each day, which is about 85% of last year’s count at this time and 60% of the 10-year average. Steelhead numbers are still very low with an YTD of ~19,000, which is 20% of the 10-year average, which is a concern. Wild counts are also low, at 24% of the 10-year average. Shad are passing the project in substantial numbers this year, at 156% of the 10-year average. At Lower Granite and on the Snake River projects, counts are coming in closer to 200% of the 10-year average. This may have caused count issues.

At Lower Granite, few sockeye are passing, about 5 per day. Conversion rates are unchanging and YTD passage is at 82% of the 10-year average. Summer Chinook seem to have passed at one of the lowest rates on record in the last 20 years with an YTD total of 5,500, or 44% of the 10-year average. Steelhead are passing the project at rates of 5-35 fish per day. YTD for the species

is 75% of last year and 31% of the 10-year average. Wild are passing at 3-19 per day with an YTD of 80% of last year and 43% of the 10-year average.

Dave Swank, USFWS, updated the TMT on lamprey passage. Counts at Bonneville are better than last year but below the 10-year average with a YTD of 19,000. He reminded the TMT that about half of lamprey pass through the lamprey passage structure at night and those numbers are not released until the end of the season, which are corrected after video review. Daytime counts are a good index to compare to previous years, but do not give a complete picture, he shared. Charles Morrill, WA, wondered about adult lamprey that have been translocated upriver. Tom Lorz, Umatilla/CRITFC, said he does not remember the exact numbers but that overall the numbers that were agreed on for this year are close to being achieved by all tribes (likely several thousand fish, he said, noting he can get the exact numbers, if people want them).

**4d. Power – Tony Norris, BPA**

As is typical during high-pressure systems, wind generation has dropped. Hot weather is expected into Saturday. BPA is not expecting this to cause any transmission issues and is expecting to meet the energy needs of the region, which tend to rise during heat waves. He noted that heat can be hard on the equipment.

**Today’s Attendees:**

<b>Agency</b>	<b>TMT Representative</b>
Army Corps of Engineers	Doug Baus (Chair), Lisa Wright
Bonneville Power Administration	Tony Norris, Scott Bettin
Bureau of Reclamation	Joel Fenolio
NOAA Fisheries	Claire McGrath
US Fish & Wildlife Service	Dave Swank
Washington	Charles Morrill
Oregon	Erick Van Dyke
Idaho	Jonathan Ebel
Montana	Brian Marotz
Nez Perce Tribe	Absent
Umatilla Tribe	Tom Lorz
Colville Tribe	Absent
Warm Springs Tribe	Jen Graham
Kootenai Tribe	Absent
Spokane Tribe	Absent

**Other Attendees (non-TMT members):**

Corps – Willow Walker, Alexis Mills, Aaron Marshall, Chris Peery, Scott St. John  
 DS Consulting – Donna Silverberg (Facilitator), Colby Mills  
 BPA – Melissa Haskin (Notetaker)  
 Yakama Nation – Tom Iverson  
 Columbia Basin Bulletin – Mike O’Bryant  
 Clearing Up – K.C. Mehaffey  
 Portland General Electric – Ruth Burris