

## COLUMBIA RIVER TECHNICAL MANAGEMENT TEAM

August 9, 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](mailto:colby@dsconsult.co).*

**Review Meeting Summaries & Minutes** – TMT Members approved the official meeting minutes and facilitator's summaries for the July 19 and 26 meetings. Minutes and summary from August 2 will be reviewed at the next TMT meeting.

**Dworshak Operations** – Grant Bell, Corps, provided an update on current operations and forecast modeling for Dworshak Dam. Current pool elevation is 1,561.79 feet; the forebay had been dropping between 1.0-1.1 feet/day, and dropped to about 0.6-0.7 feet/day over the last week with SOR operations. Releases dropped to 6,300 cfs and the project began ramping back up to powerhouse to start sending extra cold water downstream in anticipation of the SOR end date. Total outflow is currently 8,300 cfs.

Cloud cover and scattered precipitation in the basin led to favorable weather over the weekend; the Snake River is about 72 degrees F at Anatone and around 70 degrees F at Orofino. The Lower Granite tailwater temperature has been hovering around 69 degrees F and under, and is expected to plateau around 69 degrees F for the next couple days.

Prior to the SOR, stratification in the Lower Granite forebay was close to the 15–20-meter mark (even the 10–15-meter mark). Under SOR operations, stratification is now sitting in 20–25-meter range as expected. The Corps is closely monitoring the situation as things ramp back up to get temperatures back to below 68 degrees F in the Lower Granite tailwater.

Although the extended long-term forecast is not available, the current regional forecast is favorable; with some precipitation there has been a clear uptick in inflows to the Dworshak reservoir, providing extra water and helping the SOR operation. Looking at the 10-day forecast, conditions today are milder with cloud cover in the area and will start to warm and get hot (above 100 degrees F) starting August 14/15. By the end of the 10-day, temperatures will start to cool; Lewiston will get back down to the high/mid-80s.

Today's modeling results show that as Dworshak started increasing flows last night, temperatures in the Lower Granite tailwater are expected to hover closer to 69 degrees F for a few days before transitioning back down to below 68 degrees F (either late August 13/early August 14). Grant reminded the TMT that this model is calibrated at the 68-degree F threshold and is slightly less calibrated for the current operation; day-to-day the model runs fluctuate. With the current 10-day forecast and water supply conditions, the Corps is confident Dworshak will meet the end of August flow augmentation target with an additional 1 or 2 days of water.

Charles Morrill, WDFW, noted that the additional days of water at Dworshak are a benefit, and that even with hotter weather there is still cooling at night, which helps temperature control.

**Adult Sockeye Conversion** – Jonathan Ebel, IDFG, provided a final update on sockeye passage through the hydro system, noting that passage has essentially come to a stop. There have been very few additional

fish over Bonneville and up through Ice Harbor and Lower Granite. Conditions in the Salmon River continue to look good for passage; with good base flows in the basin this year. Fish should be okay if they make it through the Anatone stretch.

Conversions haven't changed much since last week; 0.21 Bonneville to Lower Granite is likely close to the final conversion rate for the run. Average travel times in the last two weeks have increased, indicating slow fish that have survived have finally passed the dams. 6.4% of total Bonneville detections were detected above Priest Rapids, with one additional fish in the last week passing Wells. IDFG is trapping sockeye in the Stanley Basin now, both natural and hatchery origin fish.

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

- **Hungry Horse:** midnight elevation was 3,550.3 feet. The project is currently operating to Columbia Falls minimums, releasing 2,200 cfs or more with inflows averaging 660 cfs. Joel noted the project is still near the minimum natural flows for this time of year.
- **Grand Coulee:** midnight elevation was 1,283 feet, with inflows averaging 104,000 and releases averaging 107,000 cfs. Banks Lake did hit its maximum pool on August 1, a day later than expected due to pumping limitations. The project is drafting down to the 5-foot draft rate by August 31.

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

- **Libby:** midnight elevation was 2,449.5 feet, average inflows of 3.1 kcfs, outflows of 8.5 kcfs;
- **Albeni Falls:** midnight elevation was 2,062.3 feet, average inflows of 7.1 kcfs, outflows of 10 kcfs;
- **Dworshak:** midnight elevation was 1,562.1 feet, average inflows of 1.6 kcfs, outflows of 6.5 kcfs;
- **Lower Granite:** average outflows of 27.4 kcfs;
- **McNary:** average outflows of 129.2 kcfs; and,
- **Bonneville:** average outflows of 138 kcfs.

Aaron Marshall, Corps, provided an update on MOP operations. Lower Monumental has been operating within a 0.5 foot raised MOP range (537.5-539 feet) since June 16 to help maintain the minimum tailwater operation at Little Goose. Little Goose began operating within a 1.0 foot raised MOP range (634-635.5 feet) on August 7 to help maintain the minimum tailwater elevation at Lower Granite for navigation safety. The Lower Granite powerhouse tailwater gauge has been regularly dropping below the minimum tailwater elevation and project operators were concerned about navigation safety at the downstream lock entrance. Operators are not confident that the navigation lock tailwater gauge is providing accurate readings due to debris accumulation, so data there are unreliable (inaccurately high). This has been a regular problem with the gauge at this location. Corps Walla Walla staff is planning to relocate the navigation lock tailwater gauge at Lower Granite this fall to a location slightly more downstream to avoid this debris accumulation.

MOP operations will end on August 15 for Little Goose, Lower Monumental and Ice Harbor dams; Lower Granite will continue to operate in MOP through August 31 as described in the FOP.

Jonathan asked how long the navigation lock gauge has been in its current position, and how the Corps plans to confirm that any new position will still reflect the needs at the navigation lock while maintaining connectivity with the old data set? He noted concern that the issues with the gauge keep coming up, with differing rationales; any extra hard data is helpful to Fish Managers. Aaron noted that concerns about debris at the gauge are new and he will pass along Jonathan's questions to the Walla Walla team for follow-up.

Trevor Conder, NOAA, asked if there was a specific day or range of hours that were of concern for the elevation at Lower Granite for navigation safety? Aaron noted it became more of a concern towards the end of July and into August; August 3 was of particular note.

Fish Managers members noted continued concern with data correlation between the Lower Granite navigation lock, the powerhouse and Little Goose operations; this has been a topic of discussion for the past few months. It was proposed to continue this discussion during a separate technical meeting, or at this year's TMT Year End Review.

*Water Quality:* Dan Turner, Corps, reported TDGs are less than the water quality (WQ) criteria on the Snake and Columbia rivers. The Dalles tailrace gauge has a ruptured membrane; USGS is aware of the issue and will work to fix the gauge tomorrow.

*Fish:* Trevor reported that sub-yearling Chinook are passing with a slight recent increase, about 2,000 at Lower Granite, and a few moving down to Bonneville.

For adults: Bonneville passage is between summer and fall Chinook (currently counting fall Chinook). A few coho (counted as jacks) and a couple thousand steelhead are passing per day; sockeye are barely trickling through. In the Snake River, Ice Harbor is seeing fairly low numbers of Chinook (less than 100/day), the same for steelhead, and very few sockeye (less than 10/day). Lower Granite index is less than 50 Chinook/day, the same for steelhead, and a trickling of sockeye through the system. Fish are moving slowly through the system as expected with the warm temperatures.

Dave Swank, USFWS, reported that the lamprey run at Bonneville is still good, although it has come down in the past couple weeks with daily passage closer to the 10-year average. The adult run will still be above average.

*Power System:* Tony Norris, BPA, reported warm temperatures ahead and an expected increase in power use. There isn't a lot of water in the river.

**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 August 16, 2023, at 9:00 AM.**

**Columbia River Regional Forum  
Technical Management Team  
OFFICIAL MINUTES  
Wednesday, August 9, 2023  
Minutes: Andrea Ausmus, BPA (contractor, CorSource Technology Group)**

Today's TMT meeting was held via conference call and webinar, chaired by Lisa Wright, 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 – July 19 and 26 (August 2 still pending)**

- July 19 – Approved
- July 26 – Approved

**2. Dworshak Operations – Grant Bell, Corps-NWW & Jonathan Ebel, ID**

a. Current Hourly Data (August 9 Hour 7)

- Current Forebay Elevation: 1561.79 feet
- Dropping (Prior to SOR): 1 – 1.1 foot/day
- Dropping (After SOR): 0.6-0.7 foot/day
- Dworshak (DWR) Discharge: 6300 cfs
  - Starting last night, began ramp back up to Powerhouse in anticipation for the end of the SOR date. Started sending extra cold water.
- Dworshak Current Outflow: 8.3 kcfs

b. Snake & Clearwater Rivers Temperature Data

- Have had favorable weather conditions over the weekend throughout the basin and the general area with lots of cloud cover as well as some scattered precipitation.
- Natural temperatures (°F):
  - Anatone: ~72°F
  - Orofino: ~70°F
- Lower Granite (LWG) tailwater: < 69°F
  - Has been hovering for the last half of a day or so.
  - Expected to continue to plateau around that 69°F for the next couple of days.

c. LWG Forebay Temperature Strings

- 10–15-meter line stratification is sitting since we started the SOR operations.
- Right now, sitting at the 20–25-meter line for that real stratification that we are looking for, which is expected for this operation.
- Something they are closely monitoring, for the rest of the week as they ramp back up to get temperatures back below 68°F in the Lower Granite tailwater.

d. DWR Extended Inflow Forecast

- Good forecasts, good precipitation, good weather conditions over the last weekend.
- The extended long-term forecast has not updated yet, it still shows below the median.
- There has been a good uptick in inflow into Dworshak reservoir, giving a little extra water and helping the operation.

e. 10-Day Regional Temperature Forecast

- Today (August 8) conditions mild, more cloud cover in the area.
- August 14 & 15 are the warmest days in the forecast with > 100°F days.
- Will start cooling off toward the end of the 10-day. There is a big shift from August 18 to August 19.

f. Weather Forecast for Lewiston, ID

- Gentle warm up until Monday and Tuesday, expected to be the hottest days of the heatwave.
- Temperatures will begin to cool back down after that.
- Back into the high to mid-eighties at the end of the 14-day forecast.

g. Current Model Results – August 8

- Started the increase of DWR flows last night.
- Temperatures are expected to hang out closer to 69°F for the next few days before transitioning back down to below 68°F either late August 13 or early August 14.
- Bell wanted to remind everyone that this model is better calibrated for runs at the 68°F threshold and is slightly less calibrated for 69°F. They are taking into account flows, current base conditions, as well as forebay stratification when making their decisions. The models might swing a little bit more than expected but a common theme is that late on the 13<sup>th</sup>, early on the 14<sup>th</sup>, temperatures are expected to drop back down.

h. Current Operations

- The water supply is looking good.
- They are currently seeing the August 31+1 day to August 31+2 days depending on how the 10-day turns out.
- DWR is back to having a good water supply for the rest of August.

Charles Morrill, WA, said thank you for the update. He shared a thought about Bells comment about excess water. He said that it is not really excess water, whatever water we have. He said that the objective is still to meet that 1535' and a +1, +2, +3 if we are needing that temperature objective is a benefit. He said that he would like to note that because that is one of the points that they have made in the past. His other comment is that we are fortunate even with the hotter weather we are still seeing cooler at night. He said that those are beneficial things for meeting the objective and providing adequate flows for a temperature control at LWG.

Bell said a different way to frame the end of August water is no longer at the point that they are cutting it close anymore. He said that would be a more accurate representation of the remaining water between now and the end of August and moving forward.

Jonathan Ebel, ID, said that he thinks that we all appreciate Bell's update and that it was well done. He said that we got pretty fortunate with the weather as well. He also said thank you to Bell and his team.

### **3. Adult Sockeye Conversion through August 1– Jonathan Ebel, ID**

#### **a. Adult Snake River Sockeye Passage**

- This will be the last conversion update.
- Sockeye passage through the hydro system has more or less come to a stop with very few if any additional over Bonneville and all the way up through Ice Harbor and Lower Granite in the last week.
- Whatever has passed Lower Granite has passed.
- Conditions in Salmon River continue to look good for passage.
  - Unlike other parts of the basin the Salmon has good base flow this year.
  - As long as they can make it through the Anatone stretch they will be in okay shape.
- Conversion Rates
  - Conversions have not changed much from last week.
    - Shows that passage run is done.
  - BON>LWG .21
    - Probably will be close to the final conversion (with no confidence bounds)
- Average Travel Times

- Increase of travel times in the last two weeks are the slow fish that survived that then finally passed the dams. The travel time increased.
- One fish that went above Priest Rapids may have come up and been detected at Ice Harbor.
  - 6.4% of total Bonneville detections we detected up Priest Rapids with one additional fish in the last week passing Wells Dam.
- IDFG is trapping sockeye in Stanley Basin.
  - Ebel does not have current numbers, but they are trapping fish.
  - They are trapping both natural origin and hatchery fish.

Dave Swank, USFWS, asked if he has any indication of the condition of those fish in the Stanley Basin.

Ebel said that he has not heard they are roughed up. He said that typically fish that make it to Stanley Basin are the highest quality fish that are passing the dam. What they do have an indication of is the folks that run the trap at LWG did not see high injury levels. In 2021 particularly, there were a lot of fish moving through that were covered in what they call “bullets”, various lesions and a number of temperature-related infections. They did not see abnormally high incidences of that at LWG. To date Ebel had not heard of any really beat up fish but he said that usually Mother Nature culls those fish out before they reach the Stanley Basin.

Swank said that is good news.

Ebel said sort of.

Swank said yes, he is tempering it a little bit but that was what he needed to know.

#### 4. Operations Review

##### a. Reservoirs

*Reclamation – Joel Fenolio*

- Hungry Horse Dam
  - Midnight elevation: 3550.3 ft.
  - Operating to Columbia Falls minimums.
  - Outflows: ~2200 cfs
  - Inflows: 660 cfs
  - Near minimum natural flows they would see for this time of year.
- Grand Coulee Dam
  - Midnight elevation: 1283 ft.
  - Average Inflows: 104 kcfs

- Average Outflows: 107 kcfs
- Banks Lake hit its max pool on August 1.
  - Day later than they thought because they had some pumping limitations.
- Tracking down to the 5-foot draft rate by August 31.

*Corps – Lisa Wright*

- Libby Dam
  - Midnight elevation: 2449.5 ft.
  - Inflows: 3.1 kcfs
  - Outflows: 8.5 kcfs
- Albeni Falls
  - Midnight elevation: 2062.3 ft. (Hope Gage)
  - Inflows: 7.1 kcfs
  - Outflows: 10 kcfs
- Dworshak Dam
  - Midnight elevation: 1562.1 ft.
  - Inflows: 1.6 kcfs
  - Outflows: 6.5 kcfs
- Lower Granite average outflows: 27.4 kcfs
- McNary average outflows: 129.2 kcfs
- Bonneville average outflows: 138 kcfs

*MOP Operations – Aaron Marshall*

- Lower Snake Projects
  - Lower Monumental
    - Operating within a .5-foot raised MOP range since June 16
    - 537.5 – 539 feet
    - To maintain the minimum tailwater elevation at Little Goose.
  - Little Goose
    - Operating within a 1-foot raised MOP range since August 7
    - 634 – 635.5 feet
    - To maintain the minimum tailwater elevation at Lower Granite for navigational safety.
  - Lower Granite Powerhouse Tailwater Gage



- Has been regularly dropping below the minimum tailwater elevation there and project operators were concerned about navigation safety at the downstream lock entrance.
  - Project operators are not confident that we are getting accurate readings because of the debris accumulation around the Navlock tailwater gage, the data there are suspect. This has been a regular problem with the gage at this location.
  - Walla Walla staff are planning to relocate the gage to at Lower Granite to a location just slightly downstream where it will be less susceptible to this kind of debris accumulation. The specific concern there is that debris gets around that Navlock tailwater gage it is giving an inaccurately high reading.
- MOP is coming to an end on August 15 for Little Goose, Lower Monumental, and Ice Harbor. Lower Granite will continue to operate in MOP through August 31 as described in the FOP.

Ebel asked Marshall how long the Navlock gage has been in the current position and how will the Corps plan to confirm that any new position still reflects the needs at the Navlock and maintain some type of connectivity with the old dataset.

Marshall said that the concerns about the debris accumulation at this gage is a new issue that has come to his attention so he will have to look into that. He said that we are going to continue to have coordination with Walla Walla who operate and maintain those gages. He said that he can take those questions and follow up with them at a later time.

Ebel said that he is concerned that the gage questions keep coming up. He said that it does get some people fired up and rationales are changing. He said that an extra hard information or data that Marshall could provide would be helpful.

Trevor Conder, NOAA, asked if there was a specific day or range of hours within a day that were of concern for this elevation at Lower Granite. He also asked if Marshall could also let them know what day and hours that they dropped below the elevation that was a navigation concern.

Marshall said that it started to become more of a concern toward the end of July and so far through the first part of August. They have seen the powerhouse tailwater gage regularly drop below the minimum. He said that August 3 would be a good example, if you want to look at a particular day.

Conder asked if they looked at the operation at Little Goose forebay at that time. He asked where it was at that time, if it was at the bottom of the range. He asked if it had any effect on that.

Marshall said that it something that they are regularly checking as they are monitoring the tailwater elevations. At that time, they had Little Goose forebay gage 1-foot to even more than a foot higher than the powerhouse gage at Lower Granite.

Morrill said that he appreciated what Marshall was sharing with TMT. He said that this has been an ongoing discussion over the last several months since the Corps first raised the issue of the difference between the powerhouse and navigation tailwater elevations

and Little Goose operations. Morrill said his thought that he would hope the Corps would consider is that they would not remove the current gage but add an additional gage to corroborate what is going on between the navlock and powerhouse. He said that he appreciates Marshall looking into it and he appreciates the ability to look at the data between Lower Granite between the powerhouse, the navlock and what is going on at Little Goose as well.

Ebel asked if Marshall said that the Little Goose forebay was a foot higher than the powerhouse gage reading at Lower Granite.

Marshall said yes that is right. This is something that they have been watching for years which has necessitated all of these MOP adjustments. He said that it seems counterintuitive, and you would think that by having a forebay elevation at Little Goose that is a foot to a foot-and-a-half higher than the tailwater at Lower Granite we would have water flowing uphill, which it certainly does not. What explains this is the complex hydraulics at the Lower Granite tailrace and each one of the Lower Snake projects, especially during spill operations.

Ebel said that this is something that he struggles with because spill operations in the summer have not changed in years. He asked when this appeared. He said presumably it would have appeared in 2008.

Marshall said that it precedes his time with the Corps. He said yes, it has been an issue for a number of years, and we go look back at some of our teletypes and the FOP captures this as well. Where they started needing to adjust for navigation safety. The FOP has captured it, Marshall said that he is not sure exactly when but we could look back at some old FOPs for when the Corps started including the need for these adjustments for nav-safety.

Ebel said he wants to be cautious about attributing it to spill. He said we need to take a look back because if the Corps wants to attribute it to the spill, then there should have been a very rapid change in those metrics that occurred when the provision of increased summer spill occurred, in the 2006 to 2008 period. Ebel said that other than that it has not changed in the summer. He said that he wants the Corps to be cautious in the interpretation of that because that was quite some time ago. Its coming up now and Ebel is concerned with the rationale changes that seem to be occurring on this subject that 125% spill is the cause and then now we are down at 18 k spill (Ebel threw out this number and said that it is not really what it is) and we are having the same issue. He said maybe it is a proportion thing. He said that it is something that should show up strongly in the dataset, it that is the actual cause of this powerhouse tail gage. Ebel said now whether that means anything to navigations or to fish passage is another question but just that we should be able to identify that.

Marshall said that it does show it in the data, and they have to make these adjustments. He said that he would acknowledge they have not made changes to the summer spill operation, but this just continues to be a problem when we have periods of low flows in combination with the spill operations, they see the tailrace hydraulics stabilize once they stop spill operations. When they have higher flows, regardless of whether they have spill operations they will see the tailrace flatten out because of periods of high flow.

Conder said that the spill in the summer has not changed substantially. There might be a little bit of powerhouse minimum changes with fixed blades, but in general the FOP spill operation is pretty similar to the past. The big change is the MOP range has changed from a foot to a foot-and-a-half and that has allowed more variability within that range. Conder said to him, looking at the data, you can see if you pull up the 2008 data there is not a lot of variability in elevation, and we did not tend to do things like this as often. Now that we have a lot of variability operating within a foot and a foot-and-a-half of range on a regular basis we see these fluctuations more. We could hold in a tighter range in the upper end of that and probably fix this issue within the current MOP level, but we are extending that MOP range up to deal with it. He said that point it not missed on some folks here. There are other ways to address this issue he said that we could have operated in the upper end of the past MOP range and addressed this sufficiently, but we are increasing the MOP range and still going to the bottom end of that range. He said that it is interesting that this is the approach.

Norris said that he wants to push back on Conder's insinuation that just because we have a foot-and-a-half operating range and that is the reason we are not able to do that. He said that since 2008 we have more fixed blade units on the Lower Snake and some forget that we also have an inflow in Lower Granite that varies significantly throughout the day due to Hells Canyon operation. As of the meeting at Little Goose they were spilling at 70%. He said that there is more going on there and to say definitively that the reason we have this problem is because there is an operating range is not a factual statement.

Stranz said if TMT wants to dive deeper into this conversation it would be helpful to spend some time pulling up different datasets and looking at them together so that they are all seeing the same thing and they can all speak from that. She said that she would be happy to provide time for people to provide perspective right now if that is what they want and if there is more to share but if we want to dive deep and work to a shared understanding it would be best to plan for that and have the data in front of us. If TMT would want to do that, she said that we could set up a process meeting or another team meeting. She said that she wanted to stop them before they get frustrated with the conversation because perspectives are like opinions. Everybody's got one.

Conder said that he agrees that at some point we do need to have a technical meeting. He said that we have had variability from Hells Canyon in the past and we have been able to maintain a consistent elevation at all Snake River projects. He said it has changed, there is more variability now. He said that he does not think that it has to do with the fixed blade units, it just is not supported. He said that he will push back again on Norris. He does not think that Norris' statement is factual, it has nothing to do with that increased range. He said that he agrees with Stranz that the next step would be to sit down and have a technical meeting rather than fling arrows at each other.

Stranz said that this is another topic that could be added to "A Year in Review". She said that if everyone is comfortable, we would table it for now and recognize that there is a still a lot of interest in the MOP operations. She said that there is also a need to be looking at data together and have a deeper dive in the technical aspects and variables that contribute. Stranz said that she would take note of that and talk offline or in process about where the best place would be to have the technical conversation.

- Stranz will work with TMT members to set up a technical conversation about MOP operations.

b. Water Quality – *Dan Turner, Corps*

- TDGs are less than Water Quality Criteria on the Snake and Columbia Rivers.
- Having some gage issues downstream in The Dalles tailrace.
  - Ruptured membrane
  - USGS is aware of the issue.
  - USGS is having workload issues in other places right now so they are going to get out there tomorrow (August 10) and fix it.

c. Fish

*Salmon – Trevor Conder, NOAA*

- Juveniles
  - Subyearling Chinook
    - Passing, a slight recent increase
    - Lower Granite
      - 2000 individuals indexed.
    - Bonneville
      - Few moving through the system down to Bonneville.
- Adults
  - Bonneville
    - Chinook
      - Trough in-between Summer and Fall
      - Counting Fall Chinook
    - Coho
      - Interesting that they are getting counted as jacks fairly early.
      - Conder said he is not sure if this is correct or what is going on there.
    - Steelhead
      - 1000/day
    - Sockeye
      - Barely trickling through as Ebel reported
      - Not much expected there.

- Ice Harbor
  - Chinook
    - Low numbers: >100
  - Steelhead
    - Same as Chinook
  - Sockeye
    - >10/day
- Lower Granite
  - Chinook
    - >50/day
  - Steelhead
    - Same as Chinook
  - Sockeye
    - Trickling of Sockeye through the system.
- Everything is holding up but is still moving through slowly, which is expected with the higher temperatures right now.
- Hopefully as things cool down things that will improve.

*Lamprey – Dave Swank, USFWS*

- Bonneville
  - Run is still good.
    - Come back down where the daily passage is closer to the ten-year average.
    - The run size is well above average and above last year's run.
- Swank thinks overall it is going to be a well above average adult lamprey run.

d. Power System – *Tony Norris, BPA*

- Warm temperatures ahead so expecting increased power use and not a lot of water in the river.

**5. Public Comments:**

**6. Set agenda for next meeting – August 16, 2023**

- a. Dworshak Update

Today's Attendees:

<b>Agency</b>	<b>TMT Representative(s)</b>
Army Corps of Engineers	Lisa Wright (Chair), Aaron Marshall
Bonneville Power Administration	Tony Norris, Scott Bettin
Bureau of Reclamation	Joel Fenolio
NOAA Fisheries	Trevor Conder, Kelsey Swieca
US Fish & Wildlife Service	Dave Swank
Washington	Charles Morrill
Oregon	Erick Van Dyke
Idaho	Jonathan Ebel
Montana	Brian Marotz
Nez Perce Tribe	Jay Hesse
Umatilla Tribe	Tom Lorz (CRITFC)
Colville Tribe	
Warm Springs Tribe	
Kootenai Tribe	
Spokane Tribe	

Other Attendees (non-TMT members):

COE – Dan Turner, Grant Bell, Elizabeth Holdren

NOAA – Dana Bethea

DS Consulting – Emily Stranz (Facilitator), Colby Mills

CorSource – Andrea Ausmus (BPA note taker, Contractor)

NW Power and Conservation Council – Kate Self

Columbia Basin Bulletin – Mike O'Bryant

Oregon DEQ – David Gruen

Clearing Up – K.C. Mehaffey

Chelan PUD – Jay Fintz