

## COLUMBIA RIVER TECHNICAL MANAGEMENT TEAM

February 17, 2021

DRAFT Facilitator's Summary

Facilitator: Emily Stranz; 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

Official minutes and facilitator's summary from the February 3 meeting will be reviewed at the next TMT meeting.

### Chum Operation

Doug Baus, Corps, reported on chum operations. The current chum incubation operation (beginning on January 1, 2021) sets Bonneville Dam with a minimum tailwater elevation of 11.8 feet. Incubation will continue through April 9, 2021, unless otherwise coordinated at TMT.

### Official Water Supply Forecasts

Joel Fenolio, BOR, reported the official February water supply forecast for Hungry Horse Dam. Residual February through July is 2 maf, or 99% of average. April to August and May to September forecasts are 99% of average. Minimum flows to Columbia Falls and below Hungry Horse will stay at 3,500 cfs and 900 cfs respectively. The May through September forecast is 1,560 kaf which sets FRM operations. Joel noted that the next round of storms may pick up snow pack in the northern basin.

Doug reported official February water supply forecasts for Corps projects:

- **The Dalles:** NWRFC April to August volume forecast is 83 maf, or 95% of average;
- **Lower Granite:** NWRFC April to July volume forecast is 16 maf, or 81% of average;
- **Libby:** Corps NWS February runoff forecast is 5,979 kaf, or 102% of average; and
- **Dworshak:** Corps NWS February runoff forecast is 2,432 kaf, or 100% of average.

In response to inquiry, Julie Ammann, Corps, noted that the climate data trend indicate a period of lower-than-average runoff in the Kootenai Basin, although the latest 30-year trend is not yet available.

In response to a question about flood risk management for Dworshak, Jon Roberts, Corps, clarified that the project's target elevation for the end of February is 1,536.2 feet, and that system and local FRM targets are within 1-foot of each other for the end of February. He noted that the system and local FRM targets will differ more moving into March.

### System Operational Request #2021-1: Dworshak Load Shaping

Jay Hesse, Nez Perce, reported on conversations at FPAC around revisions to the SOR presented at the February 3<sup>rd</sup> TMT meeting. He noted that revisions are not complete, however, are expected to include: 1) a correction on the load shaping implementation history; and 2) an update to the fry emergence memo (Attachment 2) to reflect estimates from this year's emergence. These revisions did not change the intent of the SOR, only revised the justification. Additionally, NOAA has also proposed some changes and fish managers are still working to reach consensus on language. It is expected that a revised SOR will be provided to TMT later this week.

NOAA would like the Action Agencies to work with Co-Managers to find a solution, recognizing that to do so, some sideboards are needed. Trevor Conder, NOAA, noted NOAA's interest in finding a consensus operation via regional coordination and shared that NOAA can no longer support the SOR as currently written and instead will abstain on the SOR until further conversation. Oregon Department of Fish and Wildlife, Washington Department of

Fish and Wildlife, U.S. Fish and Wildlife Service, Nez Perce Tribe, Yakama Nation, Confederated Tribes of the Colville Reservation, Spokane Tribe of Indians, and the Columbia River Inter-Tribal Fish Commission all still support the SOR, the State of Idaho also indicated support (they had not previously signed on to the SOR; see 2/3/21 meeting summary for details). BPA, Corps, and Reclamation objected to the SOR, however, do not plan to elevate.

#### *Rational for SOR Polling*

- **USFWS:** Dave noted that ongoing conversations since the original SOR was signed 2 weeks ago have influenced the Service's position. USFWS has concerns about within day load shaping and would prefer the operation is not implemented without further consulting with partners. The initial SOR is broad and ongoing discussion around refinements should help to clarify operations.
- **Nez Perce:** Jay noted concerns that full discourse on this SOR has not occurred at TMT. He noted that TMT Guideline use SORs for in-season management requests and are not intended to be a long-term strategic planning process.
- **Corps:** The Corps cannot move forward on the request without the appropriate sideboards. The Corps provided clarification on aspects of the SOR (specifically past implementation of the operation) and noted that regional concerns have been heard and understood.

Doug and Tony Norris, BPA, noted that because the SOR as written is too broad, the Action Agencies cannot implement it, however, BPA will not request within day load shaping for the remainder of February, and will hold off on implementing within day load shaping until after further coordination with regional partners. Doug noted that they will continue to coordinate internally and within the federal family, and once more information is available on future coordination needs, process, and timing, the Corps will update the TMT. In regard to future notifications on flow changes, the Corps will continue to provide bi-weekly updates on planned operations via email.

Fisheries Managers desired feedback/conversation on what sideboards are needed for the SOR to be implemented and expressed concern with how the AAs will engage them in future discussions on sideboards. There was question around the level, timing, and forum for further coordination. Additionally, concern was expressed around the level of regional coordination, collaboration, and communication, with some expressing frustration around how this SOR process has played out. It was noted that within the range of SORs, some can be addressed and implemented within a meeting, others require more time for deliberation and coordination.

#### *Next Steps*

The Action Agencies will coordinate internally and then reach out to TMT partners for additional conversation around sideboards for within day load shaping, with the intent of finding middle ground. BPA will not request within day load shaping at Dworshak Dam until after the regional coordination has occurred. A new revised SOR is anticipated to be provided to TMT later this week.

#### **Operations Review**

*Reservoirs:* Joel reported on Bureau of Reclamation projects:

- **Hungry Horse:** current elevation is 3,533.8 feet, and the project is targeting 3,525 feet by mid-March to support maintenance on the selective withdrawal system, which should be about 13 feet below flood risk in April. Selective withdrawal is projected between March 15 to April 19.
- **Grand Coulee:** current elevation is 1,275.7 feet, with a rising forecast through February. The forecast FRM elevation for the end of April was 1,257.7 feet (above the drum gate trigger of 1,255 feet) and therefore 2021 will not be a drum gate maintenance year, nor will it be forced next year. Joel noted that this means the drum gate target elevation will be slightly higher (1,255 feet).

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

- **Libby:** midnight elevation was 2,404.7 feet, with average inflows of 1.6 kcfs, and outflows of 5.9 kcfs;

- **Albeni Falls:** midnight elevation was 2,051.8 feet, with average inflows of 13.4 kcfs, and outflows of 13.8 kcfs;
- **Dworshak:** midnight elevation was 1,533.6 feet, with average inflows of 2.6 kcfs, and outflows of 1.6 kcfs;
- **Lower Granite:** average outflows of 24.6 kcfs;
- **McNary:** average outflows of 178.7 kcfs; and,
- **Bonneville:** average outflows of 192.2 kcfs.

Doug reported on a requested operation from the Kootenai Tribe of Idaho on February 11, for increased project outflows from 4 kcfs to 8 kcfs at Libby Dam, to help maintain water intake availability to the fish hatchery during severe cold temperatures. This operation was maintained through Saturday and Sunday to ramp back down to 5 kcfs today. Jonathan Ebel, ID, referenced the burbot presentation at the previous TMT meeting and pointed out that the temperature increase associated with increasing Libby Dam outflow can be clearly seen in the USGS gage data for the Kootenai River at Bonner's Ferry.

In response to a question about John Day pool elevations affecting the Umatilla hatchery, Scott Bettin, BPA, clarified that the pool elevation will be drawn down for scheduled port maintenance on February 22, with an operating range of 262-264 feet. Erick Van Dyke, OR, noted concern around the impact to fish, and Scott clarified that the hatchery is working to move fish offsite due to ongoing issues at the hatchery. Scott and Erick committed to connecting on this issue offline.

*Water Quality:* Dan Turner, reported that the Warrendale gauge has been down since January 30. USGS is working to get equipment for a replacement (hopefully by next week). There was a slight TDG response downstream of McNary (104%), which was a result of the spillway weir test that started earlier this week.

*Fish:* Trevor noted low upstream activity; steelhead are moving above Bonneville in single digits. Fall Chinook and other Chinook are emerging, with some overwintering summer steelhead moving down and upstream through the projects. Temperatures are cold, and there is also not much juvenile activity.

*Power System:* Tony reported that after the recent inclement winter weather, utilities have been struggling with ice related issues. There is a fair bit of water in the river, and BPA is meeting loads. Wind is down, which is typical, and there is high pressure near the wind turbines. Moderate temperatures can be expected in the near future.

Zero Generation operations have been used nearly every day since February 7. Tony noted that excess power generation is often sold on the market to neighboring balancing authorities to meet their own loads, keeping rates lower in the local region. Conversely, when there is a deficit, power is bought to meet loads.

**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 a conference call on March 3, 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@dsconsult.co](mailto:colby@dsconsult.co).*

**Columbia River Regional Forum**  
**Technical Management Team**  
**DRAFT OFFICIAL MINUTES**  
**Wednesday February 17, 2021**  
**Minutes: Melissa Haskin, BPA (contractor, FLUX Resources)**

Today's TMT meeting was held via conference call and webinar, chaired by Doug Baus, Corps, and facilitated by Emily Stranz, DS Consulting. See the end of these minutes for a list of attendees.

**1. Review of Meeting Minutes**

Approval of the facilitator's summary and official minutes for the February 3 TMT meeting have not yet been posted and will be reviewed at the next meeting.

**2. Chum Operation – Doug Baus, Corps**

Doug Baus, Corps, reported on the chum operation. The tailwater operation for incubation, which calls for a minimum tailwater of 11.8 ft. all hours at Bonneville Dam, will continue through April 9, consistent with what has been done in the past.

**3. Water Supply Forecasts - Doug Baus, Corps, and Joel Fenolio, Reclamation**

Baus and Joel Fenolio, Reclamation, updated TMT on the official January water supply forecast, which was released on February 3 (the 3rd workday of the month). The forecasts are as follows:

- Hungry Horse: February-July: 2,050 kaf (99%); April-August 1,925 kaf (99%); May-September: 1,670 kaf (99%); this sets minimum flows at Columbia Falls at 3,500 cfs and at Hungry Horse at 900 cfs.
- The Dalles Dam: April-August 83 maf (95% of average)
- Lower Granite: April-July 16 maf (81%)
- Libby Dam: April-August: 5,979 kaf (102%)
- Dworshak Dam: April-July: 2,432 kaf (100% of average)

The region did see some precipitation recently, after the forecast had been released, however Fenolio reported that it did not have a drastic impact on the projections.

Brian Marotz, MT, asked about average runoff at Libby Dam, noting that the 30-year average for 1981-2010 is lower than the 80-year average of 1929-2008. He wondered if that indicated a trend of decreasing runoff. Julie Ammann, Corps, responded that the latest 30-year normal for 1991-2020 is still being developed so it's uncertain whether that trend has continued. Fenolio noted that it could be at least partly because the 80-year normal is based on modeled modified flows rather than actual hydrology.

Jay Hesse, Nez Perce, asked what the flood risk management elevations are for Dworshak Dam given that the forecast is near 100% of normal. Jon Roberts, Corps, noted that the end of February target is 1536.2. Local FRM levels are slightly higher but within a foot of each other.

#### **4. System Operational Request #2021-1 - Dworshak Load Shaping - Charles Morrill, WA and Jay Hesse, Nez Perce**

The TMT revisited System Operational Request: #2021-1. Presented at the last TMT, SOR 2020-1 called for ending within day load shaping operations at Dworshak Dam. The discussion had been tabled at the last TMT meeting to allow the Action Agencies time to respond. They had received the request less than 24 hours before the February 3 meeting.

Between the last meeting and this meeting, several edits were made to the existing SOR, including a correction to the history of load shaping, which has occurred as recently as 2011 and 2016, not 1986 as reported at the last TMT and noted in a previous draft of the SOR. Additionally, salmon managers updated attachment 2, which now reflects this year's estimates for emergence.

Returning to the conversation, Baus gave an update touching on three points: 1) the Corps' response to the SOR, 2) the history of load shaping at Dworshak Dam and 3) the Corps' commitment to the region moving forward.

##### 1. Response to SOR

- a. The Corps objects to SOR 2021-1 and will not elevate. The Corps does not plan to implement the SOR based on the lack of specificity of the request. The SOR asks the Action Agencies not to conduct within day load shaping, but does not provide a time window, nor differentiate between minimum to maximum load shaping or lesser extreme flow fluctuations.
2. The Action Agencies heard the regional concerns regarding the within day load shaping operation that occurred in Jan 2021. The January operation, which ramped Dworshak flows from 1.6 to 9.7 kcfs within a day, had not been implemented for several years and the Corps shared additional information on the historical use of this operation.
  - a. Dworshak is operated for multi-purpose use, including hydropower. The Corps has done load shaping operations in the winter and spring months in most of the years since operations began in the 1970s.
  - b. Daily load shaping last occurred in 2011 with weekly load shaping in 2016. There are several conditions that need to occur to simultaneously to make the load shaping operation desirable. Some factors for consideration include available water, FRM draft needs, unit availability or market conditions. The right combination of conditions for load shaping have not occurred for several years. Most recently an extended outage on Unit 3 and lower water supply forecasts were key factors.
  - c. In January 2021, conditions were favorable to conduct load shaping and outflows were ramped from 1.6 kcfs to 9.7 kcfs each day from January 25-31. The Corps operates Dworshak to limit the change at the Peck gage to 1 ft./hour change or less. In 2021, ramp rates at Peck fell to within 0.5 and 0.75 ft./hour.
3. Next Steps Commitment:
  - a. Because load shaping is a power operation, the Corps will defer to BPA on their need for this operation. Despite the Corps plan to not implement the SOR, in the

short term, the Corps will support BPA’s commitment to not request within day load shaping through February.

- b. At this time, the Corps will not be providing any updates on this operation at TMT in the near term until the Corps completes additional coordination. Once the Corps has an update for TMT, the Corps will add an update to a future TMT agenda. Along with BPA, the Corps is committed to working with the Services and regional sovereigns to determine a long-term path forward for future within day load shaping operation to address biological concerns.
- c. Notification: The Corps will be providing bi-monthly updates on planned operations to TMT, through an email distribution, and a NWW District PAO announcement through the start of summer augmentation.

Following updates from the salmon managers, Emily Stranz, DS Consulting, polled TMT members and agencies on the SOR.

Agency	Vote
Army Corps of Engineers	Object
Bonneville Power Administration	Object
Bureau of Reclamation	Object
NOAA Fisheries	Abstain
US Fish & Wildlife Service	SOR Signatory
Washington	SOR Signatory
Oregon	SOR Signatory
Idaho	Support
Montana	
Nez Perce Tribe	SOR Signatory
Umatilla Tribe/CRITFC	SOR Signatory
Colville Tribe	SOR Signatory
Warm Springs Tribe	
Kootenai Tribe	
Spokane Tribe	SOR Signatory

In addition to the polling responses above, the Yakama Nation are signatories on the SOR.

While today’s version of the SOR was signed by NOAA, the agency is negotiating additional changes to the SOR and can no longer support it as written, thus their vote today is to abstain. NOAA intends to change the language in the document. Hesse said that the change would not change the intent of the SOR but is instead fine-tuning. However, Trevor Conder, NOAA, said that NOAA does not intend to ask the Action Agencies to cease load shaping. The agency would like to work with co-managers to find a solution. While his agency cannot support the current version of the SOR, Conder said that it is still worth moving forward with today’s conversation.

TMT members and agencies provided the following explanations for their polling responses and additional comments for the record:

**BPA:** Tony Norris, BPA, shared that conditions that support continued within day power shaping operations at Dworshak Dam as implemented in late January 2021 are not forecasted to be present for the remainder of February. BPA will not request daily flow shaping operations for the purposes of power production until some of the concerns raised in the SOR are coordinated further with the services, sovereigns and the Regional Forum. Additional power shaping operations may be implemented consistent with past operations as early as March if conditions are present. BPA will not request additional within day power shaping operations until that coordination has been completed.

**Corps:** The Corps does not plan to implement the SOR based on the lack of specificity in the document. The request does not provide a time or window for ceasing operations and does not differentiate between minimum and maximum load shaping or flow fluctuations. *(Hesse noted that since TMT is meant for in-season operations that he sees this differently. He does not believe that SORs have a default of being implemented long-term.)*

Hesse and Jonathan Ebel, ID, expressed concern for how the Action Agencies would engage with states and tribes regarding this SOR moving forward. Both men expressed a desire for more communication and contact. Additionally, Hesse voiced doubts in the TMT process due to a lack of in and out of meeting coordination prior to the Corps making its decision.

The Corps makes best efforts to address requests, said Baus. Sometimes a request can be dealt with during a meeting, other times the Corps needs to do additional coordination and the process can take longer. The Corps heard salmon managers concerns at the last TMT and provided a response at today's meeting based on request received.

Scott Bettin, BPA, added that coordination has been especially challenging as of late because in addition to the agencies working on maximum telework due to COVID-19, much of Portland is without power and internet due to a recent storm. He noted that BPA hears the regions concerns but additional time would be helpful. BPA will need to coordinate internally once the new SOR is released. Bettin asked when the new SOR will be available. The new SOR should be out tomorrow, said Hesse.

Several paths forward were laid out at today's meeting. Swank suggested the senior hydrotech team, which is a subgroup of RIOG. Unfortunately, that team cannot be accessed unless a request is pushed to RIOG.

Hesse asked if he could defer elevation to RIOG to allow the Action Agencies time to address the salmon managers concerns and to coordinate. Norris assured Hesse that BPA will not request to operate to within-day load shaping without coordinating with the Nez Perce, ID, and other sovereigns via the regional forum. BPA will do its due diligence in coordinating with regional stakeholders before moving forward to ensure that operations are consistent with the BiOp.

Norris noted that an SOR may not be necessary to address this issue. Hesse expressed concern that the Action Agencies would try to sweep the issue under the carpet without an SOR. Conder noted that it is best for record-keeping purposes to keep the request as an SOR.

Following today's discussion, next steps are:

1. The revised SOR will be submitted to the TMT and Action Agencies.
2. Unless another forum is identified, the TMT will revisit SOR 2021-1 at its March 3 meeting.

## **5. Operations Review**

### ***5a. Reservoirs – Joel Fenolio, Reclamation; Lisa Wright, Corps***

**Hungry Horse** – 3,533.8 ft. forebay elevation and targeting 3,525 ft. by mid-March for selective withdrawal maintenance, which is currently scheduled for March 15-April 19.

**Grand Coulee** – 1295.7 ft forebay elevation. The FRM end-of-April target is 1257.7 ft., which is above the 1,255 ft. trigger for drum gate maintenance so this will not be a maintenance year.

Next year, the trigger will rise to 1,265 ft.

**Libby Dam** – Midnight elevation 2,404.7 ft., yesterday’s average inflows 1.6 and outflows 5.9 kcfs.

**Albeni Falls** – Midnight elevation 2,051.8 ft., inflows 13.4 kcfs and outflows 13.8 kcfs.

**Dworshak Dam** – Midnight elevation 1,533.6 ft., yesterday’s average inflows 2.6 kcfs and outflows were 1.6 kcfs.

**Lower Granite** – Yesterday’s average outflows were 24.6 kcfs.

**McNary Dam** – Yesterday’s average outflows were 178.7 kcfs.

**Bonneville Dam** – Yesterday’s average outflows were 192.2 kcfs.

Baus reminded the TMT that as of February 11, outflows at Libby Dam were coordinated to remain between 4 kcfs and 8 kcfs to maintain water availability at the fish hatchery. Outflows are currently 5 kcfs.

Erick Van Dyke had questions and concerns about John Day pool elevations, which he will address offline with Bettin.

### ***5b. Water Quality – Dan Turner, Corps***

The Warrendale gauge went offline on January 30. USGS is working on a fix and hoping to restore service by next week. TDG downstream of McNary hit 104% in response to spillway weir operations that started earlier this week.

### ***5c. Fish – Trevor Conder, NOAA***

There is not a lot of upstream activity. Steelhead above Bonneville Dam are passing in single digits. It is cold and there is no juvenile activity. Fall chinook are emerging. Some over wintering summer steelhead are starting to move and will do so through March.

### ***5d. Power – Tony Norris, BPA***

There have been ice-related issues on the system and a fair amount of water in the river. BPA is meeting load. During high pressure systems, wind generation is down. BPA has implemented zero generation nearly every day since ~Feb 7.

Ebel asked how often load within the balancing authority is lower than or equal to the interchange. Norris replied it can be both, depending on surplus or deficit. One reason BPA is

able keep rates low in the region and sell surplus power on the market when there is more generation than load. When there is a deficit, BPA must buy power to meet load.

## 6. Next TMT

The next TMT will be a call on March 3, 2021.

### **Today's Attendees:**

<b>Agency</b>	<b>TMT Representative</b>
Army Corps of Engineers	Doug Baus (Chair), Julie Ammann, Lisa Wright
Bonneville Power Administration	Scott Bettin, Tony Norris
Bureau of Reclamation	Joel Fenolio
NOAA Fisheries	Trevor Conder
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/CRITFC	Tom Lorz
Colville Tribe	Absent
Warm Springs Tribe	Jen Graham
Kootenai Tribe	Absent
Spokane Tribe	Absent

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

BPA – Melissa Haskin (CONTR, FLUX Resources, Notetaker)

Corps – Alexis Mills, Jon Roberts, Aaron Marshall, Chris Peery, Eric Chow

DS Consulting – Emily Stranz (Facilitator), Colby Mills

Fish Passage Center – Erin Cooper

Pacific States Marine Fisheries Commission – Allan Martin

Portland General Electric – Ruth Burris

Snohomish PUD – Mike Shapley

Clearing Up – K.C. Mehaffey