

COLUMBIA RIVER TECHNICAL MANAGEMENT TEAM

January 20, 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 Minutes & Summaries

TMT members approved the official minutes and facilitator's summary for the January 6 meeting and Year End Review. The minutes from the TMT YER will be reviewed at the next TMT meeting.

Official Water Supply Forecast

Joel Fenolio, BOR, reported the official January water supply forecast for Hungry Horse Dam. Residual forecast for January through July was 2,200 kaf, or 105% of average. April to August was 2,035 kaf, or 105% of average. He noted that this forecast sets the minimum flows below the project at 3,500 for Columbia Falls and 3,500 cfs at Hungry Horse.

In response to a question from the TMT, Joel confirmed that this will not have any effect on inspecting the selective withdrawal system this year, unless there are really dry conditions. The project is still pushing hard to get down to 3,525 feet by the end of March, although currently snowpack has dropped off to 99% of average. This will be an issue discussed moving forward. Joel also noted that drum gate maintenance at Grand Coulee this season is unlikely, as the January water supply forecasts have set the RFM elevation for 1,260, feet, which is 5-feet higher than the trigger.

Doug Baus, Corps, reported official January water supply forecasts for Corps projects.

- **The Dalles:** NWRFC April to August volume forecast is 82 maf, or 94% of average;
- **Lower Granite:** NWRFC April to July volume forecast is 17 maf, or 83 % of average;
- **Libby:** Corps NWS January runoff forecast April to August is 6,215 kaf, or 106% of average; and
- **Dworshak:** Corps NWS January runoff forecast April to July is 2,843 kaf, or 117% of average.

Chum Operation

Tony Norris, BPA, presented data on observed redd locations for 2020 (posted on the TMT website). Survey locations included Strawberry, McCord Creek, Breaks, Ives pockets, Ives channel (Woodard area redds were deep and not surveyed). Tony noted that there were not many redds upstream at the entrance to the off-channel area, as seen in other years.

Claire McGrath, NOAA, requested available data to compare tailwater elevations in the chum spawning phase to redd elevation numbers, as it could be useful in future spawning discussions. Operational data for Bonneville outflows is available on the Corps' website.

- **ACTION:** Claire will follow up with Tony to clarify specific requested data; Tony will provide CSV files with redd elevations and water surface elevations. This data will be shared with other interested TMT members.

Tony reminded the TMT that temperature data is no longer collected. In the future, BPA will have a historical record of all temperature data collected over the years in one location, to assist in building data correlations.

Charles Morrill, WA, requested access to past PowerPoint presentations with chum spawning data, which should still be available on the TMT website.

→ **ACTION**: Charlie and Tony will follow up on the Power Point access.

Zero Generation from October 15, 2020 to December 15, 2020

Tony and Leah Sullivan, BPA, presented a summary of Zero Generation operations on the Lower Snake between October 15, 2020 and December 15, 2020 (posted on the TMT website). Highlights include:

- Used with a frequency closely resembling the average historical usage rates.
- Prior to the first week of November, used on only 3 days.
- Frequency of use increased after mid-November.
- Used on 5 consecutive days in late November, consistent with historical use, and coincided with reduced power production at CGS in November.

Charles noted that he would like to dive further into the slides that Leah presented on fish passage timing and index during periods of Zero Generation in 2020, once more steelhead data is available. This could be a future Process Meeting agenda item, with the possible inclusion of Science Center staff as well.

→ **ACTION**: In response to questions from Jay Hesse, Nez Perce, Leah will confirm the following:

- If juvenile fall Chinook passage at LGR were detections from both the spillway weir and the JBS.
- Provide to the TMT the finalized memo correspondence with the University of Washington cited in the presentation, when it becomes available.

Tom Lorz, CRITFC, noted that the main concern of Salmon Managers was how Zero Generation was affecting the travel times of juveniles and adults, rather than general fish passage, as the data focus on. There are not many PIT-tagged fish to provide answers on delay, although steelhead may have enough. This is a concern that may require more discussion later on.

Operations Review

Reservoirs: Joel reported on Bureau of Reclamation Projects:

- **Hungry Horse**: currently the project is at 3,545 feet, and ramped up over the last week to 3,800 cfs, operating to the Columbia Falls minimum. It will draft down for the selective withdrawal system, expecting a lower forecast going into next month. The project is ramping down to 3,525 feet by the end of March.
- **Grand Coulee**: current operation is to draft down to 1,280 feet, in coordination with BPA, for drum gate maintenance, although this is looking unlikely for this year with water supply.

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

- **Libby**: midnight elevation was 2,410.1 feet, with average inflows of 1.8 kcfs, and outflows of 4 kcfs;
- **Albeni Falls**: midnight elevation was 2,051.8 feet, with average inflows of 18.7 kcfs, and outflows of 16.9 kcfs;
- **Dworshak**: midnight elevation was 1,534.0 feet, with average inflows of 3.3 kcfs, and outflows of 1.7 kcfs;
- **Lower Granite**: average outflows of 28.3 kcfs;
- **McNary**: average outflows of 165.4; and
- **Bonneville**: average outflows of 185 kcfs.

Water Quality: Dan Turner, Corps, had nothing to report, with TDGs looking good.

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Fish: Claire noted that as JBSs are closed, there wasn't much to report. Daily adult counts show steelhead passing in low numbers at Bonneville. Overall, last year counts improved across species, but are still below the 10-year average.

Power System: Tony reported that zero generation has not been utilized much yet this year, only 5 or 6 times since January 1.

Questions and comments from members of the public: there were no questions or comments from members of the public.

The next TMT meeting is a conference call on February 3rd 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.

Columbia River Regional Forum

Technical Management Team DRAFT OFFICIAL MINUTES

Wednesday January 20, 2021

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

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

1. Review of Meeting Minutes

The January 6 facilitator's summary and official TMT minutes were approved with no additional changes.

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

Doug Baus, Corps, and Joel Fenolio, Reclamation, updated TMT on the official January water supply forecast, which was released on January 6 (the 3rd work day of the month). The forecasts are as follows:

- Hungry Horse: January-July 2,200 kaf (105%); April-August 2,035 kaf (105%); May-September: 1,820 kaf (107%). As far as selective withdrawal maintenance, Fenolio noted that Reclamation is still aiming to hit 3,525 ft. at Hungry Horse by the end of March. Snowpack is at 99% of average.
- The Dalles Dam: April-August 82 maf (94% of average)
- Lower Granite: April-July 17 maf (83%)
- Libby Dam: April-August: 6,215 kaf (106%)
- Dworshak Dam: April-July: 2,843 kaf (117% of average)

At Grand Coulee, drum gate maintenance is looking unlikely but is still possible. The final decision will be made on February 1.

3. Chum Operation – Doug Baus, Corps; Claire McGrath, NOAA; Tony Norris, BPA; and Charles Morrill, WA

Tony Norris, BPA, presented on 2020 chum redd locations and elevations, which is available on the TMT website under today's agenda. At Woodard, there were chum this year but per the WDFW surveyors, they were not surveyed as they were much deeper than in other locations.

Claire McGrath, NOAA, asked for additional information on chum spawning with relation to tailwater elevations. Norris can provide McGrath with the data file that contains redd elevations as well as water surface elevations. He can also share these data with other interested TMT members.

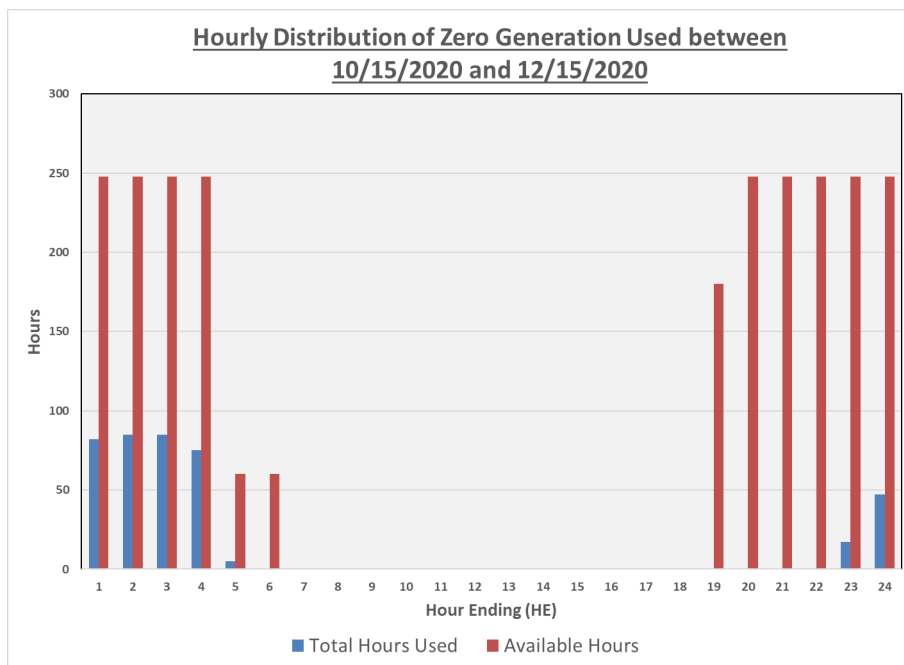
Charles Morrill, WA, wondered about the availability of past years' presentations since he was unable to access last year's presentation on the TMT website. That data should still be on the website; however, Norris will forward the information to Morrill if he cannot access it online.

4. Zero Generation Operation - Tony Norris, BPA, and Leah Sullivan, BPA

Norris and Leah Sullivan, BPA, provided a presentation on Lower Snake River Zero Generation Operations between October 15, 2020 and December 15, 2020. This presentation is also available on the TMT site under today’s agenda. Norris reported that BPA did not use zero generation much during the first weeks it was available to the agency. It then gradually increased usage. Norris shared the following information on 10/15/20-12/15/20 operations:

- Percent of Available Hours Used = 15.6%
- Average Percentage of Available Days Used = ~34%
- Percent of All Hours (24 hours per day) = 6.7%

He also presented this information in graph form, as seen below:



Overall:

- Zero Generation during the 10/15-12/15 was used with a frequency that closely resembled the average historical usage rates.
- Zero Generation was used on only 3 days prior to the first week of November.
- Frequency of use increased after mid-November.
- In late November Zero Generation was used on 5 consecutive days, which is consistent with historical use.
- The period of 5 consecutive days coincided with reduced power production at CGS in November.

Jay Hesse, Nez Perce, asked about juvenile detections at the Lower Granite spillway weir and JBS and where the data were from. Sullivan will look into it and report to Hesse. Hesse also wondered about the citation in the presentation (Itlis et al. ((2020, 2021))). This citation refers to a

memo that is being made in collaboration with UW and BPA and is being finalized, still. Sullivan will send out the memo when it is available.

Morrill asked that Leah revisit TMT at a process meeting, with the NOAA Science Center, to dive deeper into the information she provided at today's meeting. He is particularly interested in fish passage timing as it relates to the fish passage index with respect to zero generation operations.

Tom Lorz, Umatilla/CRITFC, shared that his concern is if fish are taking longer to pass during periods of zero generation. Sullivan noted that there are not many PIT-tagged fish during the periods Lorz is interested in so it would be hard to draw conclusions about a possible delay. The one species that may have enough PIT-tag information to make an observation would be steelhead. Sullivan said she can dig into that information further but does not have information on that today.

5. Operations Review

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

Hungry Horse – currently at 3,545 ft. elevation and ramped up to 3.8 kcfs last week. It is operating to Columbia Falls minimums and will target 3,525 ft. for the end of March to accommodate for selective withdrawal maintenance in April.

Grand Coulee – drafting down to 1,280 ft. for drum gate maintenance, which may be delayed again, depending on the water supply forecast. The final decision will be made on February 1.

Libby Dam – Midnight elevation 2,410.1 ft., yesterday's average inflows 1.8 and outflows 4 kcfs.

Albeni Falls – Midnight elevation 2,051.8 ft., inflows 18.7 kcfs and outflows 16.9 kcfs.

Dworshak Dam – Midnight elevation 1,534 ft., yesterday's average inflows 3.3 kcfs and outflows were 1.7 kcfs.

Lower Granite – Yesterday's average outflows were 28.3 kcfs.

McNary Dam – Yesterday's average outflows were 165.4 kcfs.

Bonneville Dam – Yesterday's average outflows were 185 kcfs.

5b. Water Quality – Dan Turner, Corps

Nothing significant to report.

5c. Fish – Claire McGrath, NOAA

There is little to report. The JBSs are closed. Steelhead are passing Bonneville in low numbers. While across species and projects, fish passage overall has improved from 2019, it is still well below the 10-year average.

5d. Power – Tony Norris, BPA

The area is seeing mild temperatures and cold weather coupled with high pressure and less wind on the system. Since January 1, 2021, BPA has utilized zero generation very little, about 5-6 times, reported Norris.

6. Next TMT

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

Today's Attendees:

Agency	TMT Representative
Army Corps of Engineers	Doug Baus (Chair), Lisa Wright, Julie Ammann
Bonneville Power Administration	Scott Bettin, Tony Norris
Bureau of Reclamation	Joel Fenolio
NOAA Fisheries	Claire McGrath
US Fish & Wildlife Service	Absent
Washington	Charles Morrill
Oregon	Absent
Idaho	Jonathan Ebel
Montana	Brian Marotz
Nez Perce Tribe	Jay Hesse
Umatilla Tribe/CRITFC	Tom Lorz
Colville Tribe	Absent
Warm Springs Tribe	Absent
Kootenai Tribe	Absent
Spokane Tribe	Absent

Other Attendees (non-TMT members):

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

Corps – Dan Turner, Alexis Mills, Jon Roberts, Aaron Marshall, Willow Walker

DS Consulting – Emily Stranz (Facilitator), Colby Mills

Clearing Up – K.C. Mehaffey