

COLUMBIA RIVER TECHNICAL MANAGEMENT TEAM

April 29, 2020

DRAFT Facilitator's Summary

Facilitator: Emily Stranz; Notes: 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. 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://www.nwdwc.usace.army.mil/tmt/agendas/2020/>.

Review Meeting Minutes

TMT Members approved official meeting minutes and facilitator's summaries for the April 15 and 22 meetings.

TDG & Flex Spill Update

Dan Turner, Corps, reported that John Day was able to spill at its spill cap yesterday; however, the 120% TDG target in the tailwater was not hit, so the spill cap was raised to 166 kcfs. He noted that Bonneville Dam spilled for a couple hours yesterday at 151 kcfs, which resulted in an asterisk on the data table (indicating involuntary spill), however, that is a typo and Dan will fix it.

On the Snake River, Lower Granite had a spill cap for the past two days of 72 kcfs, which did not result in the target 125% TDG in the tailwater. The project raised the spill cap to 80 kcfs, but there wasn't enough inflow to reach 80 kcfs, so the project is operating at minimum generation and spilling the rest. All other Snake River projects are at minimum generation and spill the rest.

Tony Norris, BPA, reported that with the current availability of more water, flexible spill is occurring at all projects.

Operations Review

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

- **Hungry Horse:** midnight elevation was 3,524.3 feet, with the project ramping up releases to powerhouse capacity of 86 kcfs to reach the minimum FRM target. Currently Columbia Falls is 20 kcfs, with the lower elevation snowmelt starting in the Flathead Basin.
- **Grand Coulee:** midnight elevation was 1,248.6 feet, with inflows averaging 113 kcfs, and the project releasing about 90 kcfs to support operations at Chief Joseph Dam.

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

- **Libby:** midnight elevation was 2,405.4 feet, with average inflows of 12.4 kcfs, and outflows of 9.4 kcfs;
- **Albeni Falls:** midnight elevation was 2,055.1 feet, with average inflows of 37.5 kcfs, and outflows of 33.9 kcfs;
- **Dworshak:** midnight elevation was 1,541.7 feet, with average inflows of 15.5 kcfs, and outflows of 4.7 kcfs;
- **Lower Granite:** average outflows of 84.3 kcfs;
- **McNary:** average outflows of 224.1 kcfs; and
- **Bonneville:** average outflows of 238.0 kcfs.

Water Quality: Dan had nothing further to report.

Fish: Claire McGrath, NOAA, reported that juvenile traps in the tributaries are operating with some delays, partly due to COVID19 precautions. In general, yearling Chinook are increasing at the traps, and all projects are seeing increasing numbers of juveniles.

Adult Chinook are passing in higher numbers, with 7,007 YTD at Bonneville, which is higher than last year but only 12% of the 10-year average. Steelhead YTD passage is 82% of 10-year average, and unclipped steelhead passage is 97% of the 10-year average. Spring Chinook passage is 167 YTD at Lower Granite, with steelhead and unclipped steelhead passage both at 33% of the 10-year average.

Charles Morrill, WA, walked the group through a series of daily juvenile fish passage graphs located on the Fish Passage Center (FPC) website (www.fpc.org); the graphs show some species timing similar to past years, others with a delayed start compared to previous years.

Claire followed up on a question about the FPC adult passage indicator tool, reporting that FPC is working to get it back online, however, there have only been a couple of PIT-tagged fish passing Lower Monumental to date. Paul Wagner, NOAA, reported that the DART passage tool will also be available for tracking this season.

Power System: Tony Norris, BPA, reported volatile wind conditions from recent weather fronts, with increasing hydro-generation due to higher temperatures. Load remains moderate due to moderate temperatures.

The next TMT meeting is a conference call on May 6th 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

April 29, 2020

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

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

1. Meeting Minutes

The official minutes and facilitator's summaries for 4/15 and 4/22 were approved.

2. TDG and Flex Spill Update - Dan Turner, Corps, and Tony Norris, BPA

Dan Turner, Corps, reported on spill operations. Flows have started to rise on the Lower Columbia River. Yesterday, John Day hit its spill cap, which is set based on 120% TDG in the tailwater gate, and was able to maintain it for several hours. However, it did not hit 120% TDG. In response, the Corps raised the spill cap to 166 kcfs. At Bonneville, spill was 151 kcfs for several hours yesterday.

On the Snake River, Lower Granite hit its spill cap of 72 kcfs on Monday. This should have resulted in TDG levels of 125% in the tailwater; however, TDG was slightly lower than that. The Corps raised the spill cap but there was not enough water to reach the increased spill cap. The higher spill cap resulted in the project dropping back down to minimum generation and "spill the rest." The Corps was unable to determine if the higher spill cap would result in 125% TDG. The rest of the Snake River is at minimum generation and spilling the rest.

Tony Norris, BPA, reported on flex spill hours. BPA is utilizing flexible spill at all projects now that flows have come up.

3. Operations Review

3a. Reservoirs – Joel Fenolio, Reclamation; Lisa Wright, Corps

- **Hungry Horse** – Midnight elevation was 3,524.3 ft. Releasing near full powerhouse at 8.6 kcfs. Columbia Falls is at 20 kcfs. It jumped significantly with lower elevation snowmelt in the Flathead Basin recently.
- **Grand Coulee** – Midnight elevation 1,248.6 ft., passing inflow have increased recently and are hovering around ~113 kcfs. The project has been refilling over the last week and has released ~90 kcfs on average to support flows below Chief Joseph.
- **Libby Dam** – Midnight elevation 2,405.4 ft., yesterday's average inflows 12.4 kcfs and outflows were 9.4 kcfs.
- **Albeni Falls** – Midnight elevation 2,055.1 ft., inflows 37.5 kcfs and outflows 33.9 kcfs.
- **Dworshak Dam** – Midnight elevation 1,541.7 ft., yesterday's average inflows 15.5 kcfs and outflows were 4.7 kcfs.

- **Lower Granite** – Yesterday’s average outflows were 84.3 kcfs.
- **McNary Dam** – Yesterday’s average outflows were 224.1 kcfs.
- **Bonneville Dam** – Yesterday’s average outflows were 238.0 kcfs.

3b. Water Quality – Dan Turner, Corps.

No additional report.

3c. Fish – Claire McGrath, NOAA

The juvenile traps are operating with some delays due to COVID-19 access restrictions and debris in the Snake River trap. Additionally, the Grande Ronde trap needs to be pulled due to hatchery pulses. There has been an increase in yearling Chinook across all projects.

At Bonneville, there has been an increase in adult Chinook passage with the YTD at 7,007, which is 160% of last year and 12% of the 10-year average. Since it is early in the run, it is still hard to tell how this year will go. Steelhead are continuing to pass at ~5-22 passing the project per day in the last week and a YTD of 2,945 (173% of last year and 82% of the 10-year average). Wild steelhead are at 97% of the 10-year average.

At Lower Granite, adult spring Chinook are at a YTD of 167, which is a lot more than last year at this time but only 5% of the 10-year average. For steelhead, the YTD is 2,049 (72% of last year and 33% of the 10-year average), with passage numbers of 9-25 per day last week. Unclipped are also at 33% of the 10-year average.

Charles Morrill, WA, took TMT through some daily juvenile passage index graphs on the FPC site.¹ At Lower Granite, yearling Chinook may be trending towards a typical distribution. Steelhead seem to be behind compared to years past, based on the graphs. At McNary, the trends seem to be comparable to past years for Chinook, the peak is still far out.

McGrath mentioned that FPC adult passage indicator tools are working but there have been some website issues that FPC is working to resolve. McGrath reached out to FPC who reported that there have only been a couple PIT-tagged adults detected at Lower Monumental thus far (meaning the tool isn’t useful quite yet). Paul Wagner, NOAA, said the DART tool will work this year but there are only a few fish thus far so the tool is not useful quite yet.

3d. Power – Tony Norris, BPA

Tony Norris, BPA, reported on the power system. Fronts have been moving through the region, bringing volatile wind conditions. Temperatures and water are increasing, thus hydro generation has increased. Loads remain moderate.

¹ <http://www.fpc.org/smolt/passgraphs/dayPassgraphSubmit.html>

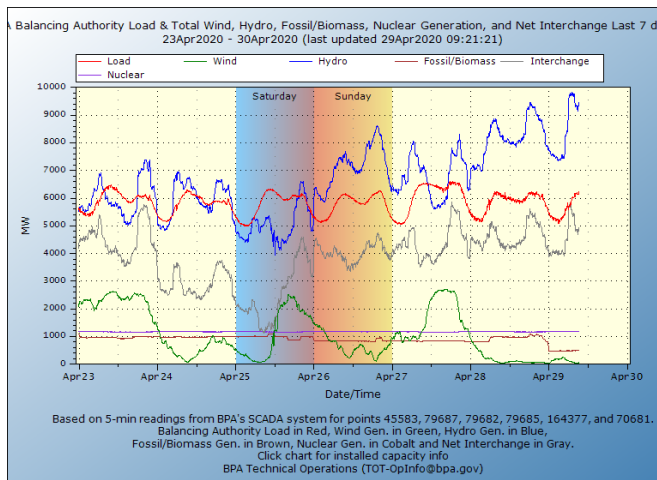


Figure 1: BPA Balancing Authority Load and Generation for the last 7 days, April 23-30.

4. Next TMT

The next TMT meeting is call on May 6 at 9 a.m.

Today's Attendees:

Agency	TMT Representative
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	Paul Wagner, Claire McGrath
US Fish & Wildlife Service	Dave Swank
Washington	Charles Morrill
Oregon	Erick Van Dyke
Idaho	Jonathan Ebel
Montana	Jim Litchfield
Nez Perce Tribe	Jay Hesse
Umatilla Tribe/CRITFC	Tom Lorz
Colville Tribe	Sheri Sears
Warm Springs Tribe	N/A
Kootenai Tribe	N/A
Spokane Tribe	N/A

Other Attendees (non-TMT members):

Army Corps of Engineers – Dan Turner, Aaron Marshall, Jon Roberts, Laura Hamilton, Alexis Mills
 BPA – Melissa Haskin (CONTR, FLUX Resources, Note taker)
 Clearing Up – K.C. Mehaffey
 Columbia Basin Bulletin – Mike O’Bryant
 DS Consulting – Emily Stranz (Facilitator), Colby Mills
 Oregon DEQ – Paula Calvert
 Snohomish PUD – Mike Shapley