

## COLUMBIA RIVER TECHNICAL MANAGEMENT TEAM

February 19, 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 the official minutes and summary from the January 22, 2020 meeting.

### **Water Supply Forecasts**

Joel Fenolio, BOR, reported the official water supply forecast for Hungry Horse Dam. The February through July forecast was 2,151 kaf, or 106% of average. The May through September forecast was 1,778 kaf, or 105% of average. The flood risk management elevation is 3,545, but the project will be lower than that. In response to inquiry, Joel clarified that there are no current plans to shift flood control to Grand Coulee Dam.

Doug Baus, Corps, reported official water supply forecasts for Corps projects:

- The Dalles: NWRFC April to August volume forecast is 93 maf, or 106% of average;
- Lower Granite: NWRFC April to July volume forecast is 19 maf, or 97% of average;
- Libby: Corps NWS February runoff forecast April to August is 6386 kaf, or 109% of average; and
- Dworshak: Corps NWS February runoff forecast April to July is 2,095 kaf, or 86% of average.

Monthly precipitation was below average in October, November and December, and increased in January and February. Doug noted the precipitation value highs for the month of February: in the Snake River, the Grande Ronde River Basin was 385% of normal precipitation; in the Upper Columbia, the Clark Fork River Basin was 179% of normal; in the Mid-Columbia, the Yakima River was 160% of normal; the Columbia River Main Stem above The Dalles Dam was 133% of normal; western Washington in the South Sound River basin was 303% of normal; and western Oregon the Clackamas was 117% of normal.

The 5-10-day precipitation forecast is expected to dry and drop to 50% of average throughout the Columbia River Basin. Temperatures are expected to be below average in the Snake and Columbia River Basins. The 6-10 day and 8-14 day climate outlook is cold and dry with well below average temperatures throughout the entire basin and a probability of below average precipitation. The 30-day climate forecast shows an equal chance of above or below average temperatures and precipitation.

### **Chum Operations**

The current Bonneville tailwater elevation at 0700 hours was 17.1 feet, with a total outflow of 218.8 kcfs. After a high of 200 kcfs today, the RFC inflow forecast gradually recedes to 170 kcfs by the end of the 10-day period. The Corps plans to continue the current tailwater operation for chum incubation through April 9; spring spill operations for juvenile fish passage start on April 10.

Claire, McGrath, NOAA, reported that chum incubation has been going well, and emergence is expected to start in late February/early March and continue until May.

## **Operations Review**

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

- **Hungry Horse:** midnight elevation was 3,531.5 feet, with inflows of 1,100 cfs over the last 5 days. The project is currently releasing 2,600 cfs and is on track to be below 3,525 feet by the end of March to accommodate selective withdrawal maintenance in the first 2 weeks of April. Currently the powerhouse is offline due to maintenance and TDG is around 108% (within the State of Montana limits).
- **Grand Coulee:** midnight elevation was 1,268.9 feet; the project is currently targeting to get down to 1,255 feet by mid-march for drumgate maintenance. The drumgate maintenance trigger was met with February flows.

Doug reported on Corps of Engineers projects:

- **Libby:** midnight elevation was 2,414.3 feet with outflows of 20 kcfs;
- **Dworshak:** midnight elevation was 1,522 feet with outflows of 1.6 kcfs;
- **Lower Granite:** average outflows were 32.8 kcfs;
- **Bonneville:** average outflows were 206 kcfs.

*Water Quality:* Alexis Mills, Corps, reported that the Little Goose and Lower Monumental tailrace gauges are down and should be repaired by tomorrow.

*Fish:* Claire noted some steelhead in the system, with 7-30 total and 0-13 unclipped at Bonneville over the last week. The yearly total is 763, and 308 unclipped, which is slightly above the 10-year average. Coho made a late appearance at Bonneville in January, with 129.

*Power System:* Tony Norris, BPA, noted mild temperatures and nothing else to report.

**The next TMT meeting is a conference call on March 4th 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**  
**February 19, 2020**  
**Minutes: Melissa Haskin, FLUX Resources**

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

## **1. Meeting Minutes and Summaries**

The minutes and summary for 1/22 were approved with no additional edits.

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

Doug Baus, Corps, and Joel Fenolio, Reclamation, updated TMT on the February water supply forecast. The forecasts are as follows:

- Hungry Horse February-July: 2,151 kaf (106% of average); May-September 1,778 kaf (105% of average)
- The Dalles Dam: April-August 93 maf (106% of average)\
- Lower Granite: April-July 19 maf (97%)
- Libby Dam April-August: 6,386 kaf (109%)
- Dworshak Dam April-July: 2,095 kaf (86% of average)

Doug also took TMT through the precipitation tables, where on the Snake conditions have greatly improved. For instance, in the Grande Ronde River Basin, precipitation for the month has been 6.28 inches (385% of normal). He also highlighted the Upper Columbia at the Clark Fork River Basin, which showed 179% of normal at 2.54 inches. On the Yakima River Basin above Kiona, precipitation is ~160% of normal for the month. On the Columbia River Basin above The Dalles, things have been tracking at 133% of normal (1.89 inches).

The NWRFC precipitation table for the water year shows increases in precipitation, which has been below normal precipitation throughout the Columbia River Basin. Baus also discussed the Water Year Summary Graphics, which showed below average observed precipitation in October, November, and December. In January and February, observed perception increased. Temperatures have been below normal thus far in February. For instance, they are 1.7 degrees F. below normal on the Snake River above Ice Harbor thus far and 2.1 F. below normal on the Upper Columbia above Arrow Dam. On the Mid-Columbia above the Dalles, thus far temperatures are 1 degree F. below average. Precipitation came in the form of both snow and rain.

The current 5- and 10-day forecasts show dry weather, with conditions likely 50% of average in the Columbia River Basin.

Of note, there was a significant precipitation event in Eastern Oregon this month. There was flooding on the Umatilla. On ungauged portions, the tribes estimate that it was a 200-500 year event. Unfortunately, the rain ripped off a lot of low-level snow.

The 30-day outlook calls for equal chances of above or below-average precipitation and temperature (expect a slightly higher probability of above average conditions in Northwestern Montana and

below average in Southwestern Oregon). The 6 to 10-day outlooks calls for cold, dry conditions as does the 8 to 14-day forecast.

### **3. Chum – Doug Baus, Corps, and Claire McGrath, NOAA**

There is a lot of water in the system. The tailwater elevation at 0700 was 17.1 ft. and outflows were 218.8 kcfs. The 10-day forecast shows a high of 200 kcfs inflows, tapering off to 170 kcfs by the end of the 10-day period. The tailwater operation for incubation will continue through April 9, similar to what has been done in the past. April 9 is the day before juvenile passage starts.

### **4. Operations Review – Joel Fenolio, Reclamation; Lisa Wright, Corps; Tony Norris, BPA**

#### ***4a. Reservoirs***

**Hungry Horse** – Hungry Horse is releasing ~2,600 cfs. Midnight elevation was 3,531.5 ft. Inflows have been ~ 1,100 cfs. Reclamation is drafting down to 3,525 by March 31 for selective withdrawal maintenance. The powerhouse is off for work on the station service breaker, thus the project is spilling everything it is releasing and TDG is ~108%.

**Grand Coulee** – Midnight elevation 1,268.9 ft., drum gate maintenance was triggered by the February water supply forecast. The goal is to be below 1,255 ft. by the middle of March.

**Dworshak Dam** – Midnight elevation 1,522 ft., yesterday's average outflows were 1.6 kcfs.

**Libby Dam** – Midnight elevation 2,414.3 ft., yesterday's average outflows were 20 kcfs.

**Lower Granite** – Yesterday's average outflows were 32.8 kcfs.

**Bonneville Dam** – Yesterday's average outflows were 206 kcfs.

#### ***4b. Water Quality***

There is not much to report. The Little Goose and Lower Monumental gauges are down but should be repaired by tomorrow.

#### ***4c. Fish***

Claire McGrath reported there have been steelhead at Bonneville (7-30 per day and 0-13 unclipped per day). The YTD is 763, with 308 of those being unclipped. This is above the 10-year average.

Dave Swank, USFWS, pointed out that one of the totals didn't make sense (11 unclipped fish were reported but the total count was 9. McGrath said she would look into this). This year, there have been a lot of late Coho. In January, there were 129 counted.

#### ***4d. Power***

Tony Norris, BPA, reported on the power system. Temperatures mild and there is not much to report.

### **5. Next TMT**

The next TMT meeting is a call on March 5 at 9 a.m.

**Today's Attendees:**

**TMT members:**

<b>Agency</b>	<b>Representative</b>
Army Corps of Engineers	Doug Baus (Chair), Lisa Wright, Julie Ammann
Bonneville Power Administration	Scott Bettin, Tony Norris
Bureau of Reclamation	Joel Fenolio
Colville Tribe	Sheri Sears
Idaho	Jonathan Ebel
Kootenai Tribe	N/A
Montana	Jim Litchfield
Nez Perce Tribe	Jay Hesse
NOAA Fisheries	Paul Wagner, Claire McGrath
Oregon	Erick Van Dyke
Spokane Tribe	N/A
Umatilla Tribe/CRTIFC	N/A
US Fish & Wildlife Service	Dave Swank
Warm Springs Tribe	N/A
Washington	Charles Morrill

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

Army Corps of Engineers –Aaron Marshall, Heather Baxter, Alexis Mills, Jon Roberts, Ricardo Walker

DS Consulting – Emily Stranz (Facilitator), Colby Mills

FLUX Resources – Melissa Haskin (Note taker)

Columbia Basin Bulletin – Mike O'Bryant

Clearing Up – K.C. Mehaffey