

COLUMBIA RIVER TECHNICAL MANAGEMENT TEAM

December 15, 2021

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; 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/2021/>. Suggested edits for the summary are welcome and can be sent to Colby at colby@dsconsult.co.

Review Meeting Summaries & Minutes

TMT Members approved official meeting minutes for the October 6, 20, 27 meetings and the November 3 meeting, as well as the minutes and facilitator's summary for the November 17 meeting.

Chum Operation

Doug Baus, Corps, reported on chum operations; complete operational steps are posted to the TMT website. Project tailwater elevations have been high; total outflow at 0600 hours today was 177 kcfs with a project tailwater elevation of 15.9 feet. Yesterday, average tailwater elevation was 16.9 feet, with a total outflow of 192 kcfs. At Bonneville, the RFC inflow forecast for the next 10-days is between 172 kcfs-181 kcfs. The 4-day trend shows a drop in current levels, although a lot of water (180+ kcfs) is expected the rest of this month.

Tony Norris, BPA, reported that average flow on December 6 was 170 kcfs, and on Dec 7, the project was no longer able to remain below 13-foot tailwater during the day. Willamette flow came up during this time period (around 50 kcfs at Salem) contributing to the 16-foot daytime tailwaters. To manage Bonneville's forebay, BPA was spilling as much as 40 kcfs with a 19.5-foot tailwater. Operators have been passing inflows at Grand Coulee and incremental outflows between Grand Coulee and Bonneville were around 55 kcfs. These flows are expected to hold through the end of the month.

Chum survey conditions have been poor due to high flows, a recent survey trip was cancelled due to visibility issues. Tony noted that later in the season, the survey crews will be able to confirm if there are redds needing protection above 11.5ft. Charles Morrill, WA, reported that the latest survey data are from December 8. To date, there have been no signs of any activity along the edges of the 13ft elevation habitat. Survey data do suggest active spawning is nearing completion, although there could be a few late arrivals. The most recent Hamilton Creek counts were 87 live, 51 dead, and 34 redds. At Horsetail on December 8, it was very windy and only 2 live chum were counted. At Ives/Pierce counts on December 6 were 37 live, 4 dead, and 22 redds. At Multnomah on December 8 there were 63 live and 23 redds.

Charlie reported that WA is comfortable with shifting to the incubation phase of the chum operations on December 24, as proposed by the Action Agencies. During the incubation phase, Bonneville will operate to a 13ft tailwater at all hours. NOAA also supported pre-coordinating to start incubation operations on December 24, noting that the start date is aligned with past year's operations and fish will still be able to spawn during the incubation operations if needed.

→ **ACTION:** On December 24, chum operations will transition from the spawning to incubation phase, with a 13-foot minimum tailwater at all hours.

Zero Generation

Tony reported that the zero generation trigger has not yet been met. Temperatures prior to this week have been milder and adult steelhead passage numbers usually drop once temperatures hit 41 degrees F. Once

the trigger is hit, or by January 1, 2022, the Action Agencies will communicate to Claire/NOAA that zero generation operations are going to be implemented. Claire will then let co-managers know as well.

Claire noted that as recommended in previous years, NOAA still recommends that zero generation operations occur nightly for no more than 6 hours between 2200 to 0600 hours. It was acknowledged that NOAA's recommendation is not a hard constraint. Claire and Tony will talk offline in regards to NOAA's recommendation.

Jay Hesse, Nez Perce noted that once the criteria are met, it allows implementation of zero flow. He reminded the TMT that the Nez Perce Tribe's preference is to minimize zero flow conditions as much as possible, and therefore they recommend to implement zero generation as little as possible.

Charles noted that today's TMT meeting was his last as Chair of FPAC, and that Jonathan Ebel, ID, will take over the position starting January 1, 2022.

Questions or 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 January 5, 2022, at 9:00 AM

Columbia River Regional Forum

Technical Management Team

OFFICIAL MINUTES

December 15, 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 Official Minutes and Summaries

Official minutes from the 10/6, 10/20, 10/27, and 11/3 meetings, and facilitator summary and minutes for the 11/17 meeting, were approved with no additional edits.

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

Doug Baus, Corps updated the TMT on Chum operations, which were coordinated at the October 27 TMT meeting. The coordinated operation is available on the TMT website. Currently, the Corps is operating to the spawning operation. Today, the Corps would like to discuss the transition to incubation. This would include coordinating the start date and the minimum protection elevation in the Bonneville tailwater for incubation.

Looking at Bonneville Dam project data, flows have been high. At 0600, inflows were 177 kcfs. The tailwater elevation was 15.9 ft. Yesterday, the average tailwater elevation at Bonneville Dam was 16.9 feet and total outflow was 192 kcfs.

The RFC inflow forecast for Bonneville Dam calls for inflows of 172-181 kcfs over the next 10 days.

Tony Norris, BPA, shared that there has been a lot of water in the system. December 7 was the last day BPA was able to maintain the daytime Bonneville tailwater below 13 ft. Flows in the Willamette have risen and are currently ~50 kcfs at Salem. Incremental outflow between Grand Coulee and Bonneville has been ranging from 35-55 kcfs and Grand Coulee has generally been passing inflow. Norris noted it has been a while since streamflows have been this robust in December and he expects outflow to remain high through the end of the month. At times, the daytime elevation in the Bonneville tailwater has been 16 ft. At night, it has reached as high as 19.5 ft., causing the project to spill ~40 kcfs.

Today's meeting is the last meeting scheduled for 2021. Norris commented that he expects the Bonneville protection tailwater at 13 ft. and expects that the protection level may be evaluated if there is additional information. The current high tailwater and low visibility has precluded the ability to identify any redds that may have been set after the increase in the daytime tailwater elevation. A survey was scheduled for next week to identify any redds set above previous levels and record their locations. However, that survey has been cancelled because of low visibility (it is about 1 foot right now).

Charles Morrill, WA, reported that as Norris noted, December 7-8 was when the water levels started rising. Morrill noted that the high water has precluded efforts to get counts since December 8. It will take a while for counts based on current conditions, said Morrill. Reports from the field based on observation so far indicate no activity at any sites.

The last survey (December 5) showed 386 live chum and 32 dead chum and 166 redds. Morrill believes the counts are trending down. The WDFW survey crew believes spawning is nearing the end as well.

Morrill also reported 228 live as the peak count on December 3 at Duncan Creek. On December 9-10, the counts showed 87 live, 51 dead, and 34 redds.

On the mainstem, at Horsetail Falls, the peak count was November 29. It showed 31 live, 2 dead, and 66 redds.

At the Ives & Pierce Island Complex, the peak count was 421 live, 4 dead, and 133 redds on November 23. The count after that, on December 6, showed 37 live, 4 dead, and 22 redds.

Based on these data, WA's position is that spawning is mostly complete though there may be some stragglers. The agency is comfortable with BPA's suggestion of 13 ft. Norris inquired if WA is comfortable projecting an end date for spawning of next Friday (12/24). Morrill said his agency is comfortable with that.

WDFW will continue surveys into February, when possible.

Following the update from Baus, Norris, and Morrill, TMT members and agencies had the following questions, comments, and concerns:

- Dave Swank, USFWS, said he is OK with the proposed transition date and protection level. He asked if there was particular significance to the 12/24 date. Norris said that it seems like spawning is over and this would give some cushion for coordination. The cushion also allows additional time for late arrivers to spawn.
- Claire McGrath, NOAA, supports a pre-coordinated date of 12/24.

Following today's discussion and update, the operation will switch to incubation on 12/24 with a protection level in the Bonneville tailwater of 13 ft. at all hours.

3. Zero Generation – Tony Norris, BPA, and Claire McGrath, NOAA

The trigger has not been met to signify the start of zero generation operations (this year, the trigger is a rolling 3-day average count of less than 20 total adult steelhead and less than 10 wild adult steelhead at Lower Granite). Prior to this week, temperatures have been mild. Usually temperatures are colder earlier in December. Once the water temperatures drop below 41°F, fish tend not to move through the system as much. A few days ago, the water temperatures were still in the 45° F range. Given current weather and incoming systems, Norris expects water temperatures to drop quickly. BPA will track this and coordinate with NOAA and RCC once the trigger has been met. McGrath commented that as previously coordinated, NOAA will connect with BPA and the Corps when the trigger is met and will send a memo recommending that zero

generation hours occur no more than 6 hours nightly from 2200 to 0600. NOAA will forward the information to FPAC. Norris noted that this 6-hour limitation is different from what is in the Water Management Plan and what BPA is expecting. Norris noted he does not think the operation is limited to 6 hours. Additionally, since the ladders go out of service in January, the default start is January 1 if the trigger is not met. Norris and McGrath will talk further offline. It is a recommendation and not a hard requirement, added McGrath.

Jay Hesse said that it is the Nez Perce Tribe’s preference to minimize implementation of zero flow conditions as much as possible.

4. Other

Today is Morrill’s last day as FPAC chair. Jonathan Ebel, ID, will take over the duties in January.

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	Absent
NOAA Fisheries	Claire McGrath
US Fish & Wildlife Service	Dave Swank
Washington	Charles Morrill
Oregon	Absent
Idaho	Jonathan Ebel
Montana	Brian Marotz
Nez Perce Tribe	Absent
Umatilla Tribe/CRITFC	Tom Lorz
Colville Tribe	Absent
Warm Springs Tribe	Absent
Kootenai Tribe	Absent
Spokane Tribe	Brent Nichols

Other Attendees (non-TMT members):

Corps – Alexis Mills, Aaron Marshall, Dan Turner, Catherine Dudgeon, Leon Basdekas
 BPA – Melissa Haskin (CONTR, FLUX Resources, Notetaker)
 DS Consulting – Emily Stranz (Facilitator), Colby Mills
 Chelan PUD – Jay Finch
 Portland General Electric – Ruth Burris
 Snohomish PUD – Jesse Price