

COLUMBIA RIVER TECHNICAL MANAGEMENT TEAM

October 21, 2020

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/2020/>.

Review Meeting Summaries & Minutes

TMT members approved official meeting minutes and facilitator's summaries for the September 18 and September 23 meetings. Regarding the September 30th minutes and summary, NOAA added clarification to their statements, changes are noted in *italics*: "NOAA did not *anticipate* any measurable impact," was added to the minutes and summary and, "the agency is comfortable to start on October 15 *or a later start date*," was added to the minutes. Additionally, Idaho requested that both documents include a footnote to note the unusual and dynamic SOR polling process that took place on the 30th. Emily Stranz, DS Consulting, will work with Doug Baus, Corps, and Jonathan Ebel, ID, to refine the statement and edits will be revisited at the next TMT meeting.

Chum Operation

Claire McGrath, NOAA, reported that as of yesterday, 1 chum had passed Bonneville Dam. She noted that WDFW surveyors have noted chum presence lower in the system, but not yet in the Ives Island complex area.

Doug Baus, Corps, noted that chum spawning-phase operations at Bonneville will start soon and pointed to the 2019 operations on the TMT website. Tony Norris, BPA, noted a preferred start date of November 5 and requested no earlier than November 3. He noted that for coordination purposes, BPA would need to know by October 26 if Salmon Managers wanted to request an earlier start date; this is to allow for operational planning for moving water through the system and energy marketing. Tony noted that water forecasts indicate that there will not be a need for a significant draft from Grand Coulee Dam to support chum and there is a strong likelihood of decent hydraulic conditions in the river at that time. There are unit outages at Bonneville for the end of October, and BPA didn't see anything else that would preclude the ability to support the chum operation.

Salmon Managers discussed their preferred start date:

- Washington preferred November 1 and accepted November 2, noting that having water when fish arrive is in the best interest for fish.
- NOAA suggested starting November 2 or 3 given the location of chum in the system now and time it historically has taken for travel to the Ives area. NOAA did not feel that the start date should be hardwired for November 1, although it could be okay this year given the water forecasts.
- USFWS was okay with November 1, 2, 3, or 4, and wants to be proactive in monitoring the Hamilton Creek area due to passage concerns in 2019 at the weir.
- Oregon supported Salmon Managers recommendation of November 1, while emphasizing continued concerns that the constraints on this operation are operational, rather than relating to fish protection and biological components. Erick Van Dyke, OR, also noted that Oregon feels that the operation should err on the side of species protection and it feels that the intent of being nimble and responsive to chum presence is being eroded.

- The Colville Tribe, Idaho, Warm Springs Tribe, and Umatilla Tribe all agreed with a November 1 start date.

BOR was also okay with starting on November 1 and agreed that there should not be a set annual start date. Doug pointed out the balance of managing for chum and having water for juveniles in the spring. BPA appreciated the conversation and allowing for time to plan for water releases.

Questions were raised regarding the minimum tailwater elevation of 11.3 feet versus 11.5 feet. Tony noted that in years with very dry conditions, 11.3 feet is the minimum tailwater elevation to allow access to the spawning grounds at Ives and helps to minimize the water management impact by minimizing the amount of water drafted. He reminded the group that 11.3 feet is the bare minimum, in dry conditions, to get fish into the Hamilton Creek and above areas. Given this year's water conditions, Salmon Managers decided an 11.5-foot minimum elevation would be preferred biologically. Moving forward in the operation, regular surveyors will inform any changes needed. Erick shared concern over shifting the norm to an 11.3 foot minimum and suggested that previous habitat work was done with an 11.5-foot tailwater assumption. He will provide TMT the study/information he referenced for that information.

- **ACTION:** The AA's will begin coordination to start chum operations on Sunday, November 1 at 0600 hours, as coordinated today by the TMT. The operating tailwater elevation range for step 1 will be 11.5-13 feet. The remaining steps (as posted in the 2019 chum operation) will not change.

Zero Generation

Tony reported that zero generation has been utilized once, on the morning of October 19 for 4 hours at each of the projects. The summary of criteria (posted on TMT website) designates the nighttime hours and specifications provided to operators. Tony noted that the source for nighttime hours comes from the NOAA solar laboratory, that computes various solar aspects (civil twilight). USFWS and OR appreciated the clarification of the operation, and OR emphasized that they did not support the operation.

Operations Review

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

- **Hungry Horse:** is operating to the Columbia Falls minimum, and only one unit is available; running between 200 – 300 cfs, currently close to 4,000 feet. 2 more units will come back on Nov 20.
- **Grand Coulee:** midnight elevation of 1,285.5 feet, and will hold at full until the chum operation. Inflows have been in the mid-50,000 cfs range and releases have averaged 43,000 cfs over the last 4-5 days.

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

- **Libby:** midnight elevation was 2,446.3 feet, with inflows and outflows of 4 kcfs;
- **Albeni Falls:** midnight elevation was 2,055.8 feet, with average inflows of 15.1 kcfs and outflows of 26.0 kcfs;
- **Dworshak:** midnight elevation was 1,519.7 feet, with average inflows of 3.1 kcfs and outflows of 1.7 kcfs;
- **Lower Granite:** average outflows of 23.6 kcfs;
- **McNary:** average outflows of 73.5 kcfs; and
- **Bonneville:** average outflows of 80.4 kcfs.

Water Quality: Dan Turner, Corps, reported that water quality is looking good with low TDG values. He noted that with the spill for steelhead on the Snake River, some hourly values are exceeding 110% TDG but are not showing up graphically because the Corps is applying the WA criteria of 115% in the

downstream forebay and 120% in the tailwater, as the spill is for fish passage. Dan also noted that the request to move Dworshak lower on the Spill Priority List is still being worked on internally.

Fish: Claire reported that juveniles are still showing in low numbers across the system although there have been some recent increases at Lower Granite, Little Goose and Bonneville (detailed PDF posted on TMT website).

For adults; fall Chinook, coho, and steelhead are all passing in declining numbers. At Bonneville, fall Chinook YTD is 75% of the 10-year average; jacks Chinook is 75% of the 10-year average; coho YTD is 143% of the 10-year average; jacks YTD is 391% of the 10-year average; steelhead YTD is 49% of the 10-year average; unclipped steelhead YTD is 53% of the 10-year average. As noted earlier, a single chum passed at Bonneville.

At Lower Granite; fall Chinook YTD is 67% of the 10-year average; jacks YTD is 83% of the 10-year average; coho YTD is 152% of the 10-year average; coho jacks YTD is 700% of the 10-year average; steelhead YTD is 48% of the 10-year average; wild steelhead YTD is 58% of the 10-year average; and sockeye YTD is 67% of the 10-year average.

Counts for Priest Rapids are in the handout posted to the TMT website; counts are similar to last year's data for the 10-year average.

Dave Swank, USFWS, reported that the new Lower Granite PIT antennae is showing PIT-tagged fish detected in the spillway weir (RSW). Erick noted that this is not reflective of all fish passing, as only PIT-tagged fish are detected, and the RSW is not open all the time.

Power System: Tony reported that the last weather system produced a bump up in wind generation, and temperatures are getting colder which will result in more energy use.

Updates: Dave noted that his term as FPAC Chair is over and FPAC will instate Charles Morrill, WA, as the new FPAC Chair, and Claire McGrath, NOAA, as the vice-Chair.

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 November 4 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, October 21, 2020
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

The September 18 and 23 facilitator's summaries and official TMT minutes were approved with no additional edits.

The September 30 facilitator's summary and official minutes will be revisited at the next TMT meeting. Claire McGrath, NOAA, had a few minor edits to wording in the summary and minutes to clarify NOAA's position on zero generation operations beginning on October 15. She asked that the passage be clarified to read that the agency is comfortable with a start date of October 15 **or later**. There was additional discussion around how to reflect that polling during the meeting did not adhere to TMT guidelines. Doug Baus, Corps, clarified that each SOR is unique and while guidelines keep the team on track, he did not agree with the statement that the guidelines were not followed. Jonathan Ebel, ID, who had initially raised the issue of the polling not adhering to guidelines, agreed the language might be too strong. Erick Van Dyke, OR, noted that the official notes should reflect what was said in the meeting. Since the issue had been addressed at the process meeting following the September 30 TMT meeting, members agreed that a note would be an acceptable way to reflect the polling irregularity. Baus and Ebel will work with DS Consulting to come up with a note to add to the minutes and summary.

2. Chum Operation - Doug Baus, Corps-NWD; Claire McGrath, NOAA Fisheries; Tony Norris, BPA, and; David Swank, USFWS

Doug Baus, Corps, and Tony Norris, BPA, updated TMT on chum operations. The BiOp calls for chum operations to begin the first week of November and requires Bonneville Dam outflows to provide a sufficient tailwater elevation for chum access to spawning habitat in the Ives/Pierce Island complex. Last year, the operation coordinated was to start November 4 and operate the Bonneville tailwater in the range of 11.3–13 ft. during all hours, with subsequent steps to pass increasing levels of flow.

As of now, only 1 chum has passed Bonneville Dam. There are chum in the lower system. Charles Morrill, WA, reported that 17 live chum had been reported in the Grays River area and 3 redds. He originally reported that a few chum had been reported in the Ives Island Complex area but later corrected that to Chinook. Claire McGrath, NOAA, noted that 50 live chum were reported yesterday at Grays River (Charlie's numbers did not include yesterday's count).

Norris took the TMT through last year's chum operation, available on the TMT website. Last year, the chum operation began on November 4. This year, November 1 is a Sunday. Tony hoped that the fish managers would be able to coordinate a start date for chum at today's meeting. He

noted that next Wednesday – the day TMT typically occurs – would be too late to coordinate a start date earlier than November 5th since the water releases out of Grand Coulee Dam have to travel about 350 miles and because BPA needs time to market the energy created from releases. Norris shared that chum typically show up at Ives 2 to 3 weeks after they show up in the Grays River. This would put them on track for a typical arrival in the first week of November.

There is some likelihood that during the first week of November there will be sufficient hydraulic conditions in the river. Norris noted that based on the forecasts, a significant draft out of Grand Coulee is not expected. Unlike last year where a significant draft of Grand Coulee was needed to augment flow for the operation.

The group discussed the potential start date options.

Erick Van Dyke, OR, expressed that what he was hearing was that BPA does not have the flexibility to manage operations to address chum presence. He asked: what is constraining BPA's flexibility? Norris said that a fair amount of water needs to be moved to start the chum operation and that BPA needs time to manage the release of the water and market the energy produced from the release of that water. He stressed again that if salmon managers wanted to start on November 1 that today would be good day to make that decision. By next Wednesday, the window to market that energy will close. Monday would be the last day for BPA to receive notification in enough time to start on November 1.

McGrath said she would expect chum to arrive at Bonneville in the next 2 weeks. She expressed NOAA's concern for judicious use of water from Grand Coulee. Since the water supply forecast is not as much of a concern as it has been in previous years, she proposed a start date of November 2 or November 3.

Morrill responded that the chum will not show up before the chum operation if the water is too low. Thus, he would prefer a November 2 start date.

Norris replied that he and Dave Swank, USFWS, visited Hamilton Springs and Creek last Friday. Hamilton Creek is currently flowing about 1 foot over the gage. There is water in the springs and Norris thinks it may be enough for the chum to pass the log weir. Swank said it was somewhat debatable and he would worry that chum would pile up below the drop near the log weir. They may have trouble getting over the drop, he said. There is little rain in the forecast, except for some on Friday, he noted. He mentioned he would like to avoid what occurred last year: chum were not able to get over the drop to the artificial spawning channel. A higher percent of fish spawned in the mainstem of Hamilton Creek and a large number spawned right below the drop where the log weir is. He supports a proactive approach this year. He said he would be fine with starting the chum operation on November 3 or November 4.

Van Dyke shared again that part of the operation is to respond when chum need water and the fact that biological concerns are not the primary focus of the discussion is an issue. He noted that the operation is less nimble due to the constraints with how things must be operated.

Baus shared that one issue the conversation had not touched on yet is that in some years when water is low or it is a dry forecast, starting chum too soon may come at the cost of juveniles in spring. The action agencies makes best efforts to be reasonable with the water that is available

and decisions should be made with biological concerns as well as water supply conditions and available data.

Emily Stranz, DS Consulting, shared that she heard a few dates being thrown out and asked if any fish managers would have an issue with November 1.

McGrath said she would be fine with the first. She added that there have been conversations about hardwiring November 1 as a start date for the operation in future years. NOAA is not supportive of that. However, for this year's operation, NOAA has no objections to a November 1 start date.

Jonathan Ebel (ID), Morrill (WA), Sheri Sears (Colville Tribe), Joel Fenolio (BOR), and Tom Lorz (Umatilla/ CRITFC) were supportive of a November 1 date. Ebel noted that due to the Friday weather system, there may be a pulse of chum coming through.

Van Dyke noted he was supportive of the fish managers' recommendations.

Therefore, part 1 of the chum operation will read:

1. EFFECTIVE SUNDAY, NOVEMBER 1, AT 0600 HOURS, AND UNTIL FURTHER NOTICE, OPERATE THE BONNEVILLE DAM TAILWATER IN THE FOLLOWING ORDER OF OPERATING RANGES AS PROJECT OUTFLOW INCREASES.

The group also discussed the tailwater elevation noted in the last year's chum operation document that established a minimum tailwater elevation of 11.3 ft., which during dry streamflow conditions incrementally minimizes the amount of augmentation required for the operation. Considering that this year the forecast indicates that a significant augmentation draft of Grand Coulee will not be needed, a minimum of 11.5 feet can be supported.

The group agreed that an 11.5 ft. elevation would be fine for this year. BPA will regularly re-evaluate and notify the TMT if a change needs to be made. Thus, step #2 in the chum document will read:

2. DURING ALL HOURS, OPERATE PROJECT OUTFLOW TO PROVIDE A TAILWATER ELEVATION IN THE RANGE OF 11.5-13.0 FEET.

Van Dyke raised concern that this operation was originally designed for 11.5 ft. based on the design space so when the spawning space was modified more space was available and that set the tone on what the minimum would be. Norris questioned that the Ives Island spawning areas had been modified and no one could recall the spawning space being modified. Van Dyke said he will look for the study and bring it to a future TMT for review.

3. Zero Generation – Tony Norris, BPA

BPA has used zero generation just once since the operation began on October 15. Zero generation was implemented on the morning of October 19 for 4 hours at each of the lower Snake River projects.

Norris also shared a document with the TMT that specifies civil twilight hours for each project over the period of the operation that will be used to define “nighttime” and “dawn”, consistent with the BiOp. The document is available on the TMT website under today’s agenda. In sum,

- BiOp criteria:
 - Oct 15 – Nov 30: Nighttime hours, end no later than 2 hours before dawn
 - Dec 1–14: Nighttime hours
 - Dec 15 – Feb 28: Nighttime hours + up to 3 daytime hours
- Implementation hours, based on timing of civil twilight at Lower Granite Dam:
 - OCT 15–31: 1900-0400 (ending 2 hours < dawn)
 - NOV 1–30: 1800-0400 (ending 2 hours < dawn)
 - DEC 1–14: 1800-0600
 - DEC 15 – JAN 31: 1800-0600 + up to 3 daytime hours
 - FEB 1–28: 1900-0600 + up to 3 daytime hours

Swank and Van Dyke noted they appreciated the document and that once again they wanted to note that they did not support the operation.

4. Operations Review

4a. Reservoirs – Joel Fenolio, Reclamation; Lisa Wright, Corps

Hungry Horse – Operating to Columbia Falls Minimums. Only 1 unit is available, which means it is about 200-300 cfs high. The elevation was close to 4,000 ft.. The project will get 2 units back on November 20.

Grand Coulee – Midnight elevation 1,285.5 ft. Inflows ~50 kcfs, outflows ~43 kcfs

Libby Dam – Midnight elevation 2,446.3 ft., yesterday’s average inflows and outflows 4 kcfs.

Albeni Falls – Midnight elevation 2,055.8 ft., inflows 15.1 kcfs and outflows 26.0 kcfs.

Dworshak Dam – Midnight elevation 1,519.7 ft., yesterday’s average inflows 3.1 kcfs and outflows were 1.7 kcfs.

Lower Granite – Yesterday’s average outflows were 23.6 kcfs.

McNary Dam – Yesterday’s average outflows were 73.5 kcfs.

Bonneville Dam – Yesterday’s average outflows were 80.4 kcfs.

4b. Water Quality – Dan Turner, Corps

Overall TDG values are low. With spill for steelhead on the Snake River, hourly values are exceeding 110%; however the Corps is operating to WA state criteria since this is spill for fish passage: 115% in the downstream forebay and 120% in the tailwater.

The Corps is still looking into Hesse’s request to consider moving Dworshak Dam lower on the spill priority list. Turner will report back when he has an answer.

4c. Fish – Claire McGrath, NOAA

McGrath reported on fish. For juveniles, Chinook subyearlings are passing in low numbers with recent increases

For adults, at Bonneville fall Chinook YTD ~390,000 (144% of last year; 75% of the 10-year average); jack Chinook are 75% of the 10-year average; coho are at ~118,000 YTD (182% of last

year and 143% of the 10-year average); jacks are at 24,423 YTD (391% of the 10-year average); steelhead are at ~113,635 YTD (149% of last year and 49% of the 10-year average); wild steelhead are at 45,408 YTD, which is 53% of the 10-year average. There was 1 chum at Bonneville.

For Lower Granite, fall Chinook are at 24,116 YTD (150% of last year and 67% of the 10-year average). About 40-80 are passing Lower Granite per day. Jacks are at 10,903 YTD (which is 83% of the 10-year average). About 30-80 are passing the project per day. Coho are at 6,588 YTD, which is 113% of last year and 152% of the 10-year average); Jack coho are 700% of the 10-year average. Steelhead are passing at 100-1,000 per day and at ~51,000 YTD, which is 178% of last year and 48% of the 10-year average. Wild steelhead are at 58% of the 10-year average at 17,000 YTD. Sockeye are at 641 YTD, which is 67% of the 10-year average.

4d. Power – Tony Norris, BPA

Temperatures are getting cooler so demand for power will rise. A weather system that recently passed through caused a bump in wind generation.

4e. Other:

Dave Swank's term as chair of FPAC is ending. As of November 1, Charles Morrill, WA, will be the new FPAC chairperson and Claire McGrath, NOAA, will be the new vice chair.

5. Next TMT. The next meeting will be a call on November 4.

Today's Attendees:

Agency	TMT Representative
Army Corps of Engineers	Doug Baus, Lisa Wright
Bonneville Power Administration	Scott Bettin, Tony Norris, Eve James
Bureau of Reclamation	Joel Fenolio
NOAA Fisheries	Claire McGrath
US Fish & Wildlife Service	Dave Swank
Washington	Charles Morrill
Oregon	Erick Van Dyke
Idaho	Jonathan Ebel
Montana	Absent
Nez Perce Tribe	Absent
Umatilla Tribe/CRITFC	Tom Lorz
Colville Tribe	Absent
Warm Springs Tribe	Jen Graham
Kootenai Tribe	Absent
Spokane Tribe	Absent

Other Attendees (non-TMT members):

Corps – Aaron Marshall, Eric Hockersmith, Chris Peery, Dan Turner

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

DS Consulting – Emily Stranz (Facilitator), Colby Mills

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Clearing Up – K.C. Mehaffey

Portland General Electric – Ruth Burris

Public Power Council – Shane Scott

Yakama Nation Fisheries – Tom Iverson