

COLUMBIA RIVER TECHNICAL MANAGEMENT TEAM

June 17, 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://pweb.crohms.org/tmt/agendas/2020/>.

Review Meeting Minutes

TMT Members approved the official meeting minutes and facilitator's summary from the May 29 meeting. Additional context was requested regarding a statement in the June 3 meeting minutes (paragraph 3, pg. 5) and summary (pg. 4) that referred to why Action Agencies could not implement #2 of the SOR. There were concerns that the words written reflect a lack of clarity in the SOR, rather than the rationale for why the AAs were unable to implement #2.

→ **ACTION:** Dave Swank, USFWS, and Claire McGrath, NOAA, will draft suggested edit changes and submit to the Corps/BPA for review. The edits will be added to the minutes and summary for final review as a team at the next TMT meeting.

Treaty Fishing

Kyle Dittmer, CRITFC, presented SOR 2020-C1 (*posted on the TMT website*) for the summer 2020 treaty fishing season. The request from CRITFC is to operate Bonneville and The Dalles pools within a 1.5-foot band and the John Day pool within a 2-foot band from June 22 at 0600 hours to June 24 at 1800 hours for summer fishery. Kyle noted that Tribal members are fishing for subsistence and ceremonial fish, commercial fishing is down due to Covid-19 effects; as a result, there may only be 2 weeks of fishing this season. He also reported that CRITFC will use their new drones for net counts.

Doug Baus, Corps, reported that the Corps plans to implement the SOR as requested, from June 22 through June 24. It was clarified that, in the past, this SOR called for a 1-foot band, and was changed to a 1.5-foot band roughly 5-10 years ago. John Day pool has a hard constraint of 2.0ft

Libby Dam

Jon Moen, Corps, reported on summer operations at Libby Dam (*presentation posted on the TMT website*). The May 1 official Water Supply Forecast shows April-August inflow forecast is 5.76 maf, or 98% of average. The ESP monthly water supply volume shows a potential for higher volumes, which present significant summer outflow limitations and outflow capacity. Jon noted that the project will have a maximum powerhouse outflow capacity of 10 kcfs from mid-July through early September, due to transmissions maintenance work. To mitigate the higher summer inflow volume, the project is currently releasing at full powerhouse (26 kcfs) to release outflow volume earlier in the season, before lowering the outflow to 10 kcfs or less by mid-July until unit outage is completed in September.

Jon noted that the constrained outflows during late summer will limit the ability to adapt for late-summer flow uncertainty. Based on median ESP trace modeling, the project is targeting an elevation range of 2,449 +/- 3 feet by the end of September. Montana and the Kootenai Tribe expressed appreciation to the Corps for reaching out and sharing plans in advance to address the management challenges. Jon was not aware of any potential impacts to the Dworshak summer flow augmentation, refill, or flood risk management.

TDG & Flex Spill Update

Dan Turner, Corps, reported that the lower Columbia River transitioned to summer spill operations this week. As a result, the data are not showing spill caps for McNary or John Day Dams because of the summer flow targets in the FOP at 57% for McNary, 35% for John Day, 40% for The Dalles, and 95 kcfs for Bonneville. The TDG water quality standard changed to 120% TDG in the tailrace and 115% in next downstream forebay. The Corps is setting spill caps to meet but not exceed those criteria, and in some cases it appears to be limiting spill to reach the target summer spill level outlined in the FOP, specifically at McNary, John Day and The Dalles. The Corps will continue to monitor this issue daily so as to not exceed state standards.

The Snake River is continuing spring spill operations, with a lot of minimum generation and spill the rest for the majority of the day. As projects move into summer spill operations (June 21st) on the Snake, spill caps will be set to meet the 120% / 115% downstream forebay WQ criteria.

Scott Bettin, BPA, reported that Little Goose Dam has been able to start flexible spill on time all week, while other projects have had shorter durations or not at all. As flows go down, these issues should be corrected. He noted that the lower Columbia is still experiencing lack of market in some hours, and BPA is mitigating this by not picking up the generation on the Snake.

Adult Spring Chinook Passage

Claire McGrath, NOAA, reported continuing improvement in travel times in the Lower Snake River over the last week. YTD conversion rates at all projects are comparable to previous years, and Salmon Managers are watching and waiting for annual conversion rates. Generally, management concerns are improving for Snake River passage.

Operations Review

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

- **Hungry Horse:** the project has gone back into refill mode and is currently releasing about 6,000 cfs, with inflows dropping down to 11,000 cfs. Flood operations are close to the Columbia Falls minimum, to target 3,558 feet by the end of the month. Inflows should keep up, with healthy snowpack of 130-140% of average. The project will remain at 2 feet from full until early July, when it will start targeting 10 feet from full by the end of September.
- **Grand Coulee:** midnight elevation was 1,282.7 feet, with outflows of 160,000 cfs and inflows of 188,000 cfs. Refill is slow, targeting 1,286 feet by July 2 for the July 4 holiday. Columbia River Basin projects are in incremental storage, and Grand Coulee is targeting 1,288.8 feet by mid-month for refill.

Joel updated the group on flow augmentation. With only 75% of average snowpack in the Boise River system, there will be no water coming out of that system. BOR has been working with irrigators in the upper Snake trying to rent enough water to reach 487 kaf and on June 8 they reached agreement. Joel emphasized that there is a lot of water coming down the upper Snake (240 kaf this year), and they will have to push hard to get the water out by the mid-July target. BOR started releasing flow augmentation volume yesterday, ramping up to 4,500 cfs, and will hold until July 13 to try and ramp down and finish flow augmentation by mid-month. He confirmed that the full amount of flow augmentation can be provided, despite water management challenges. NOAA was happy to see the full 487 kaf coming out this year, and appreciated BOR's efforts.

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

- **Libby:** midnight elevation was 2,439.6 feet, with average inflows of 42.6 kcfs, and outflows of 26.0 kcfs (full powerhouse);

- **Albeni Falls:** midnight elevation was 2,061.1 feet, with average inflows of 55.8 kcfs, and outflows of 52.0 kcfs;
- **Dworshak:** midnight elevation was 1,599.7 feet, with average inflows and outflows of 9.5 kcfs;
- **Lower Granite:** average outflows of 89.9 kcfs;
- **McNary:** average outflows of 272 kcfs; and
- **Bonneville:** average outflows of 279.3 kcfs.

Water Quality: Dan had nothing further to report.

Fish: Claire reported that the majority of juvenile species are done passing, except for sub-yearlings passing at Bonneville and Lower Granite. Sub-yearlings are passing in lower numbers than last week.

Not much is happening with adult ladder counts. Summer Chinook have seen moderate increases at Bonneville over the past week, with YTD passage at 79,693, or 45% of the 10-year average. Steelhead YTD total is 8,880, or 53% of the 10-year average, and lamprey are passing daily between 18-117. Claire noted almost .5 million shad have passed Bonneville.

At Lower Granite, spring Chinook YTD passage is 22,552, or 39% of the 10-year average.

Power System: Scott had nothing further to report.

Questions and 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 June 24th 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, June 17, 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, and was conducted via conference call and webinar. See the end of these minutes for a list of attendees.

1. Review of Meeting Minutes

The facilitator's summary and official meeting minutes for the May 29 TMT meeting were approved with no additional edits.

Dave Swank, USFWS, requested a change to both the summary and minutes for the June 3 meeting. The passages in question are:

***Page 4 of the Facilitator's Summary:** "The Corps agrees with BPA; from an operational standpoint they can operate the request stated in specification #1, while #2 goes beyond the scope of what the Corps can implement due to the lack of consensus on what is identified in the SOR. Doug noted that the advance notice (operational start date of June 8) does provide time to resolve any issues in a different forum."*

***Page 5 of the Official Notes:** "BPA and the Corps felt they could implement part 1 of the SOR but that they would need guidance from the flex spill working group in order to implement part 2, as it is beyond the latitude of what the action agencies can implement due to lack of consensus. With a proposed start date of June 8, there is still time for the TMT to elevate the issue to the flex spill working group to evaluate prior to implementation."*

Swank was concerned about the intent and clarity of those passages. He will send suggested edits to Doug Baus, Corps, for approval.

2. Treaty Fishing - Kyle Dittmer, CRITFC, and Doug Baus, Corps

Kyle Dittmer, CRITFC, presented SOR 2020-C1 (posted on TMT website) submitted by CRITFC to the Corps and BPA this week. The SOR requests to operate the Lower Columbia pools for the summer 2020 treaty fishery. Specifications include operating Bonneville and The Dalles pools within a 1.5-foot band and John Day within a 2-foot band during the time periods of June 22 at 0600 hours through June 24 at 1800 hours. Kyle noted the tribes are only looking for 1 week of fishing right now because the demand for fish is low due to COVID-19. With restaurants closed, wholesale demand is down and tribes are being cautious. Fisheries will be below harvest limits this year. The tribes will likely only fish for a total of 2-3 weeks this summer. CRITFC will be running a series of net flights with new drones and will share the survey data with RCC. Data may take longer to come in, since this will be the first time CRITFC is using the drones.

The Action Agencies noted they could implement the SOR as written and discussed.

Erick Van Dyke, OR, questioned if the request has always been for a 1.5 ft. range. In the past (at least 5 or more years ago, some TMT members guessed), it has been one foot.

3. Libby Dam - Jon Moen, Corps NWS

Jon Moen, Corps NWS, presented on Libby Dam summer operations, which can be viewed on the TMT website. The official May water supply forecast for April – August runoff at Libby Dam was 5.76 maf, or 98% of average, which set the sturgeon volume at 0.92 maf. Bull trout minimum flows after the sturgeon pulse are 7 kcfs through August 31 and the May VarQ release is 17,500 cfs. Additionally, the May water supply forecast for The Dalles was at 100% of normal, which set the Libby flow augmentation draft to 10 feet from full (elevation 2,449 feet) by the end of September. This year there is no flow request from the Kootenai Tribe for late summer habitat work so that won't be a consideration to work into this year's operation.

Moen provided additional information on powerhouse capacity, which will be diminished due to transmission maintenance work. The maximum powerhouse outflow capacity will be 10 kcfs starting mid-July and continuing through mid-September. The work will take 3 of the 5 units out of service since they share the same transformer. Constrained outflow during late summer will limit the Corps' ability to adapt to inflow uncertainty.

In order to work around this constraint, the Corps needs to move more volume out of the reservoir now through early summer. Therefore, the current plan is to continue releasing full powerhouse of 25-26 kcfs through early to mid-July, then ramp down to 10 kcfs or less. The schedule of the ramp down will depend on observed conditions and the forecast, and will be set to target an end of September elevation of 2,449 feet based on the median ESP trace.

In September, Libby outflow will be maintained at 10 kcfs or less even after the units return to service in order to avoid increasing outflow and a potential double peak. The pool will be used to provide a buffer in order to maintain outflow at 9-10 kcfs through September. Outflow in that range of 9-10 kcfs also maintains a biologically productive flow in the river. The resulting reservoir elevation at the end of September may be above or below the target 2,449 feet, depending on inflows. Current modelling indicates +/-3 ft range around the target is likely for most scenarios. In the event of very dry conditions, outflow may be reduced in September if necessary to avoid drafting below 2,446 ft (more than 3 ft below target) by the end of the month.

Both Sue Ireland, Kootenai Tribe of Idaho, and Jim Litchfield, MT, commented that they appreciate seeing the reservoir used as a buffer to maintain biologically productive river conditions as much as possible considering the constraints this year.

Swank asked about the status of the Kootenai Tribe's habitat restoration work and whether they might be requesting low flows in September again in the future. Ireland responded that the work has moved downstream to the meander reach and they are focusing more on floodplain reconnection, so it's not as likely that they will be working in the river bed where they would need a low flow. She couldn't guarantee they wouldn't need to ask for low flows at some point but it's less likely considering they have a different set of limiting factors and are using new construction techniques.

Jay Hesse, Nez Perce Tribe, asked if the Libby operation this year would affect Dworshak Dam summer flow augmentation, refill, or flood risk management. Both Moen and Scott Bettin, BPA, said they did not see a correlation.

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

Dan Turner, Corps, reported on spill operations. Projects on the lower Columbia transitioned to summer spill this week. Per the FOP, the summer spill target at McNary is 57%, John Day is 35%, The Dalles is 40%, and Bonneville is 95 kcfs.

The Corps is setting spill caps to meet but not exceed state water quality criteria, which changes during summer spill to 120% TDG in the tailrace and 115% TDG in the next downstream forebay. In some cases, the spill cap is below the FOP summer spill level. For instance, McNary is currently spilling to the spill cap of 144 kcfs, which is around 52% spill and below the FOP summer spill level of 57%. The Corps will continue to evaluate the spill cap daily and adjust as necessary to not exceed the water quality standard. The spill caps at John Day (135 kcfs) and The Dalles (105 kcfs) are higher than their FOP summer spill levels of 35% and 40%, respectively. Both projects are spilling at their spill cap some hours for lack of load, per the spill priority list.

The Snake River projects are currently operating to spring spill and at minimum generation for much of the time. The Snake projects will change to summer spill this weekend.

Scott Bettin, BPA, reported on flex (performance standard) spill hours. BPA started performance standard spill on time at Little Goose all week. At other projects, flex spill has been shorter in duration or not at all. As flows go down, BPA should be able to get more hours of performance standard spill.

Erick Van Dyke, OR, asked if there were lack of market conditions on the Lower Columbia. Bettin said that is the case some hours. The market has been soft on light load hours and they're mostly dealing with it by not increasing generation at the Snake projects.

5. Adult Spring Chinook Passage - Claire McGrath, NOAA, and Jonathan Ebel, ID

Claire McGrath, NOAA, reported that there have been improvements in adult travel time in Lower Snake over the past week. YTD conversion rates are now about on par with previous years (based on calendar dates).

6. Operations Review

6a. Reservoirs – Joel Fenolio, Reclamation; Lisa Wright, Corps

Hungry Horse – Hungry Horse is in refill mode, releasing ~6,000 cfs with inflows of 11,000 cfs (down from ~28,000 to ~29,000 at the beginning of the month). The end of month target is 3,558 and snowpack is healthy. Reclamation will target 2-feet from full for the end of June and top the reservoir off in early July before dropping it down to 10-feet from full at the end of September.

Grand Coulee – Midnight elevation 1,282.7 ft., inflows ~188 kcfs, releases ~160 kcfs. Refilling. Targeting 1,286 ft. by July 2 for the July 4 weekend and 1,288.8 for final refill towards the middle of the month.

Upper Snake flow augmentation update: While conditions are above average above Milner, the Boise has been dry (snowpack is about 70-75% of average). Reclamation will not be able to fill accounts to rent water out of the Boise system. Instead, Reclamation will have to rent water to get to 487 kaf. Reclamation did spill at Milner over the weekend and started flow augmentation yesterday. It will ramp up to 4,500 cfs and hold through July 13 before ramping down for the season (mid-month). There is resurfacing work at American Falls.

Libby Dam – Midnight elevation 2439.6 ft., yesterday's average inflows 42.6 kcfs and outflows were 26 kcfs.

Albeni Falls – Midnight elevation 2,061.1 ft., inflows 55.8 kcfs and outflows 52 kcfs.

Dworshak Dam – Midnight elevation 1,599.7 ft., yesterday's average inflows 9.5 kcfs and outflows were 9.5 kcfs.

Lower Granite – Yesterday's average outflows were 89.9 kcfs.

McNary Dam – Yesterday's average outflows were 272 kcfs.

Bonneville Dam – Yesterday's average outflows were 279.3 kcfs.

6b. Fish – Claire McGrath, NOAA

McGrath reported on fish. There is not much to report for juveniles, save for a few subyearlings passing Bonneville and Lower Granite. At Bonneville, adult summer Chinook have been passing at 1,248-2,453 per day with moderate increases over the past 2 days. The YTD for Chinook at Bonneville is currently 79,693, which is 107% of last year and 45% of the 10-year average. Steelhead have been passing the project at 43-86 per day and the YTD is currently 3,880, which is 144% of last year and 53% the 10-year average. Lamprey are passing at 18-117 per day and there are still a significant number of shad. In fact, last week, there was a day when almost 500k shad passed Bonneville. They have not arrived at Granite yet.

At Lower Granite, summer Chinook are at a YTD of 22,552 or 117% of last year (39% of the 10 year-average).

6c. Power – Scott Bettin, BPA

No report.

7. Next TMT

The next TMT meeting is call on June 24 at 9 a.m.

Today's Attendees:

Agency	TMT Representative
Army Corps of Engineers	Doug Baus (Chair), Lisa Wright, Julie Ammann
Bonneville Power Administration	Scott Bettin
Bureau of Reclamation	Joel Fenolio
NOAA Fisheries	Claire McGrath, Trevor Conder
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	Sue Ireland
Spokane Tribe	N/A

Other Attendees (non-TMT members):

Army Corps of Engineers – Dan Turner, Laura Hamilton, Chris Peery, Greg Hoffman, Alfredo Rodriguez, Eric Hockersmith, Jon Moen

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

DS Consulting – Emily Stranz (Facilitator), Colby Mills

Clearing Up – K.C. Mehaffey

CRITFC – Kyle Dittmer

Columbia Basin Bulletin – Bill Crampton

Snohomish PUD – Julie Potter, Mike Shapley