

COLUMBIA RIVER TECHNICAL MANAGEMENT TEAM

September 2, 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 the official meeting minutes and facilitator's summary for August 19, pending an addition of language clarifying the Port of Clarkston's and Corps' respective responsibility for dredging in the loading berth and federal navigation channel.

Approval for the official minutes and facilitator's summary for the August 26 meeting will be sought at the next meeting.

Fall/Winter Spill Priority List

Dan Turner, Corps, provided an update on the fall/winter Spill Priority List (SPL), which is posted to the TMT website. The SPL has been updated to reflect the change in State Water Quality Criteria, which is 110% TDG at level 1. Dan noted that the TMT always has the option to request a change in the order of the spill priority list.

Jay Hesse, Nez Perce, requested that Dworshak Dam priority be shifted down the SPL from #11 to at least #21, citing concerns that elevated TDG within the Clearwater River and potential exposure to the hatchery is more impactful to fish than higher TDG in the lower river. The Corps needs to have internal discussions on the feasibility and impacts of the request, considering it would equate to exceeding water quality standards at other projects while still having room at Dworshak, and proposed leaving the project as listed for the time being, pending further discussion and the exploration of options.

The Corps will circle back at the next TMT meeting (September 16) after internal conversations around Water Quality Standards (WQS). Tony Norris, BPA, noted that the likelihood of lack of load spill prior to peak runoff is extremely low, and that lack of load is not an emergency condition. Jay appreciated efforts for further discussion, and Charles Morrill, WA, added that FPAC is also largely supportive of the request.

Dworshak Dam Operations

Jon Roberts, Corps, reported on operations at Dworshak Dam. The project is currently discharging 8,000 cfs, with a forebay elevation of 1,538.42 feet. Midnight elevation on August 31 was 1,539.78 feet, which was slightly less than 5 feet above the 1,535 feet minimum. The project has been able to provide approximately 1,000 cfs more water to Lower Granite than this time last year. TDG in the tailwater remains under 101-102% during the day, peaking in warmer temperatures, and the hatchery is remaining constant. Cleaning work was done on the hatchery TDG gauge yesterday that caused a spike.

Natural flows on the Snake River are at 70 degrees F, and 62 degrees F on the Clearwater, while the Lower Granite tailwater is 65 degrees F. Water temperatures overall are coming down, although they are expected to rise in next couple days with a slight rise in air temperatures. The change of spill ops on September 1 and cooling incoming water temperatures are contributing to cooling the forebay.

The Lower Granite forebay is 66 degrees F at the 20-meter depth (intake for the fish trap) and is still less than 68 degrees F at the 15- meter depth. The top of the forebay is expected to warm slightly in the 73-degree F range, with incoming warm air temperatures. The fish trap continues to remain cool and is currently at 66.23 degrees F; it has stayed within 65-67-degree range over the last few days, and the project is targeting modeling to keep the trap below 68 degrees F.

The 10-day weather forecast shows temperatures warming on Wednesday through Saturday then cooling off on Sunday and Monday. The project will look at a 500 cfs reduction potentially this weekend or next week.

Jon notified the TMT of a wildfire just west of Dworshak Dam that started on August 30. On Monday and Tuesday there was concern that high temperatures from the blaze could impact the project's transmission line directly overhead. Based on updates from this morning, the fire is nearly fully contained, and the transmission line is now at low risk. With wind trends forecasted for Friday and Saturday, crews are working hard to fully contain the fire by Friday morning. The Corps is closely monitoring the situation, as well as the fish trap temperature intake, and the current operational plan remains the same. The TMT will be notified immediately should conditions change.

If the transmission line did go out: discharge would immediately drop to 3,500 cfs generation from one unit, the tailwater would be expected to remain under 68, and the fish trap could get to 68/69 degrees F within a 24-36 hour period. The Corps is looking at possible alternative scenarios. Nez Perce and Idaho voiced concerns over fish trap temperatures increasing in this scenario and recommended seeking state WQS waivers to allow for spilling above 110% TDG at Dworshak if needed.

Dworshak Board Operation Plan

Jay reported that the Dworshak Board met last Friday and approved an operational plan for 2020 on how to allocate and release the 200,000 acre feet from the project over the month of September from elevation 1,535 feet down to 1,520 feet. The plan for releasing the water is posted on the TMT website.

The plan uses the extra 5-feet of water from August to sustain flows of 7-7.5kcfs through Sept 10/11, then start a gradual decrease of releases from Dworshak extending through September 30 to reach 1,520-foot elevation, followed by base flows moving forward into the fall.

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 September 16 at 9:00 AM.
A DS Consulting Process Meeting will follow for TMT Members.**

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, September 2, 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 August 19 facilitator's summary and official TMT minutes were approved with one edit from Jonathan Ebel, ID. Ebel asked for his question about who is responsible for dredging the port to be in the minutes. It is the ports responsibility. The Corps is responsible for the federal navigation channel.

2. Fall/Winter Spill Priority List - Dan Turner, Corps NWD

Dan Turner, Corps, took TMT through the spill priority list for fall and winter. The order of the projects is the same and the state water quality standards have been updated to 110% TDG throughout the system.

TMT discussed the order of the projects. The order can be changed at any time.

Jay Hesse, Nez Perce, requested that Dworshak Dam be moved from the bottom of Level 1 (#11) to at least the bottom of Level 2 (#21). His rationale is that spill and TDG, specifically near the Clearwater hatchery, would affect fish more than in the lower Snake and Columbia rivers, at this time.

Julie Ammann, Corps, noted that moving Dworshak Dam that far down on the spill priority list would lead to exceeding state standards at some projects without fully utilizing available room at Dworshak Dam up to the 110% TDG standard. She proposed leaving Dworshak at the bottom of level 1 to stay in line with state water quality standards, and the Corps would look into the possibility of implementing the proposal.

Tony Norris, BPA, mentioned that it is highly unlikely there will be lack of load spill prior to the peak of runoff as opposed to later in year when the order is changed.

Charles Morrill, WA, noted that Hesse's proposal was discussed at FPAC yesterday and that he and most others were in support. Ammann replied that the Corps would need to confirm with the states whether or not this proposal is consistent with water quality standards. Turner reiterated that, in the highly unlikely event of lack of load spill all the way through Level 1, this proposal would result in exceeding water quality standards in Washington when there is still a way to reduce TDG at those projects. The Corps would need a position from Washington on that. Morrill responded that he would have to talk to WA DOE to get an official response, but his opinion is that WA would like to move Dworshak down in the order, and if it's implemented, the discussion could be accommodated. He acknowledged that the Corps shouldn't voluntarily

violate water quality standards but that DOE is generally in support of fish operations. The language is clear that this would be a violation but they're not "standing there with a hammer over our head". He is concerned with the health of fish and minimizing impacts of TDG to the extent possible, and in this case in particular, on fish in Idaho. Ammann reiterated the Corps has to rely on what's written in the Washington standard.

Dave Swank, USFWS, asked if the estimated spill caps are based on TDG modeling. Turner replied that it is based on empirical experience of what the system has seen before. This means it is probably most reflective of what occurred last time there was spill at this level, which may not be representative of what would happen this time.

The Corps will discuss options internally and this item will be added to the September 16 agenda for further discussion.

3. Dworshak Operations - Jon Roberts, Corps

Jon Roberts, Corps, reported on operations at Dworshak Dam. The project is discharging 8 kcfs and the forebay is at 1,538.42 ft. elevation. The midnight elevation on August 31 was 1,539.78 (almost 5 feet above the 1,535 ft. minimum). TDG is ranging from 101% to 102% in the tailwater, peaking usually midday as temperatures rise. The Corps was working on the gauge at the hatchery yesterday so there was a spike in TDG.

Water temperature in the Snake River at Anatone is currently 70°F, the Clearwater River at Orifino is 64°F, and the Lower Granite tailwater is around 65°F. Water temperatures will likely rise over the next few days. The forebay at Lower Granite was 66°F at the 20-meter depth where the fish trap intake is located, and under 68°F at the 15-meter depth.

The 10-day weather forecast shows warmer temperatures through Saturday, then a slight cool down through Monday. While the surface temperatures in the forebay may rise to about 73°F at Lower Granite, the temperatures at the 15 and 20-meter depths should stay cooler.

Roberts shared an operational scenario, available on the TMT website, noting that the Corps would drop releases by 0.5 kcfs in the next week because of the forecasted lower temperatures.

Roberts also reported on a wildfire near Dworshak Dam that could impact operations. The fire started August 30 and is growing rapidly. Pictures are available on the TMT website. The fire was burning under the 500KV transmission lines and, while they remain energized, it is a concern. If the line goes out or is taken out, the discharge at Dworshak Dam will drop immediately to 3.5 kcfs. If that were to happen, the Lower Granite tailwater would likely remain under 68°F. The fish trap, however, could get up to 69-70°F and it would take several days for cool water to enter the system naturally.

Proactively, if the Corps needed an option, Roberts noted that the Corps could increase back up to powerhouse capacity if it looks like the transmission line is in danger. This option would keep the tailwater at Lower Granite below 68°F but the fish trap would still rise to 69-70°F, though the amount of time it would be in that range would be shorter. TDG would be 110% for an extended period of time should the line go out. As of this morning, the consensus was that the

transmission line is at low risk of being taken offline. Roberts will send out a regional update on Friday regarding the situation.

Hesse noted that should the line be taken offline, the Nez Perce would support targeting a higher spill level of 113% TDG and exceeding state water quality standards in an effort to protect temperatures at the Lower Granite adult fish trap. Jonathan Ebel, ID, voiced Idaho would support such a waiver if it were to be put on the table.

4. Dworshak Board Operation Plan - Jay Hesse, Nez Perce Tribe

Jay Hesse, Nez Perce, presented on the Dworshak Board Operational Plan attached to today’s agenda. As part of the Snake River Basin Adjudication, the Nez Perce Tribe secured 200,000 acre-feet (200 KAF) of Dworshak water for release to benefit fish, with the intention to provide a transition for Dworshak summer flow augmentation through September until the natural cooling that typically happens late September or early October. As part of the agreement, the release strategy of that water is determined by the Dworshak Board. Hesse reviewed this year’s Dworshak Board plan, which is similar to last year’s plan. The extra 5 ft of water on August 31 will be used to sustain flows through September 10 or 11 with 7.5 kcfs releases. Following that, there will be a gradual draft to elevation 1,520 ft by September 30. Should the lines near Dworshak Dam go out due to the fire, the slope of the drop off in releases would likely remain the same. The only difference would be that flows would remain higher for a few days, meaning that the 1,520 ft. elevation would be reached a few days earlier.

5. Next TMT

The next TMT meeting is call on September 16 at 9 a.m.

Today’s Attendees:

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

Other Attendees (non-TMT members):

Corps – Dan Turner, Jon Roberts, Chris Peery, Laura Hamilton, Alfredo Rodriguez, Alexis Mills, Aaron Marshall

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

DS Consulting – Emily Stranz (Facilitator), Colby Mills

Yakama Nation Fisheries – Tom Iverson

Portland General Electric – Ruth Burris

Clearing Up – K.C. Mehaffey

Columbia Basin Bulletin – Mike O’Bryant