

## **COLUMBIA RIVER TECHNICAL MANAGEMENT TEAM**

July 29, 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 Minutes & Summary**

TMT Members approved the July 15 official meeting minutes and summary, pending the following edits:

- Add Charles Morrill, WA, to list of meeting participants in the minutes.
- "LDS" should be "Lamprey Passage Systems (LPS)" in the fish section of the summary and minutes.

### **Lower Monumental Dam Operations**

Julie Ammann, Corps, recapped recent operational response to TDG exceedances in the Ice Harbor Dam forebay, as coordinated during an unscheduled TMT meeting on July 24<sup>th</sup>. The Lower Monumental spill pattern was modified to a new operation outside the Fish Passage Plan (FPP). The modified spill pattern is posted on the TMT website (note: there were some 'copy and paste' errors in the original table, it has been updated).

Alexis Mills, Corps, noted some implementation issues throughout the weekend, which have since been resolved, including a lack of data transmission on July 23 and errors in the coordinated pattern (when the head was lower, the project switched to uniform spill to increase the number of stops to achieve 17 kcfs spill). There was interest in adding the coordinated operation into the FPP for future implementation when needed to address TDG exceedances; additionally, Salmon Managers requested it be modeled at ERDC to ensure awareness of the nuances of the spill pattern. Julie noted that she will discuss the modeling request internally and will reach out to Ryan Laughery, Corps, on his availability to present more background information and development insight on the updated spill pattern.

TDG has been below the state Water Quality Standard in the Ice Harbor forebay and Lower Monumental tailrace since Friday. Doble testing began at Lower Monumental on Monday, and will continue through Friday July 31, which has not seemed to have an effect on TDG levels. The Corps reverted to the bulk spill pattern in the FPP (Table LMN-7) since the modified pattern was no longer necessary for TDG management. However, the project switched to a modified spill pattern yesterday due to the detached navigation lock guide wall that needs to be repaired (see update below).

Julie reported that there is a lot going on at Lower Monumental right now, including operational changes to allow for Doble testing and a new dam safety issue with the floating navigation lock guide wall. The issue with the wall was discovered at the project yesterday afternoon and is regarding the cabling system in the forebay. Modifications were made to the spill pattern as a result, including closing the RSW and shifting to a uniform pattern. At this point, navigation through the lock has not been affected. The Corps is working to assess the issue and fix, however, at this time they do not know how long it will take to repair. They will update the TMT as soon as more information is available. Additionally, the Corps is working on a Memo for the Record (MFR), which will be provided to FPOM.

### **Dworshak Dam Operations**

Jon Roberts, Corps, reported that the project is currently discharging at higher rates of flow between 13.4-13.3 kcfs and is spilling about 3.5 kcfs plus full powerhouse. During the day, the operation is to reduce spill down to about 3 kcfs as the hotter temperatures impact TDG.

TDG levels are between 107% – 108% in the tailwater and decrease during the day. The forebay elevation has been dropping about 1 foot every day due to operating at powerhouse capacity and spilling up to the gas cap.

Water from Dworshak continues to cool the Lower Granite tailwater, taking about 2-4 days to reach the pool and another day to mix into the tailwater. Lower Granite Dam hourly tailwater temperatures are right under 67 degrees F, although they are expected to rise between 67.5-67.75 degrees F with the incoming extreme heat.

The project started moving water this past Saturday, as temperatures were forecast to be in the high 90s by Sunday. Temperatures reached 100 degrees F on Monday and Tuesday. Temperatures are forecast for 110 degrees F today, over 100 degrees F tomorrow, and up to 108 degrees F on Friday, before cooling to the high 90s on Saturday. The end of 10-day period looks to be a little cooler, which would be ideal as the outage for Doble testing starts next week at Lower Granite Dam, which will limit cooler discharge through the powerhouse to 5 kcfs during the day.

The Corps plans to continue Dworshak at full powerhouse with spill to the gas cap through Monday, for a total of 10 days. During the Lower Granite outage next week, powerhouse capacity to pass cooler, deeper water will be limited to 5 kcfs during the hottest daylight hours and the remainder of outflow will be spilled, so the tailrace will likely be very close to 68 degrees F. Cooler air temperatures forecasted next week should help. Jon noted that the Corps is closely watching temperatures and TDG to be efficient and conserve water for the month ahead.

There was conversation around potentially closing the RSW during the daily powerhouse outage in order to limit passing warmer water from the surface of the forebay. Salmon Managers considered the tradeoff between juveniles and adults in terms of RSW operations and when it would be more valuable to have cool water. The Corps' current plan is forecasted to keep water temperatures in the Lower Granite tailrace below 68 degrees F. Salmon Managers will continue to discuss and explore options at an unscheduled FPAC meeting tomorrow morning, with current forebay temperature string data and tailwater modeling information provided by the Corps. Any alternate recommendations will need to be submitted by Friday afternoon, as water from Dworshak is scheduled to begin on Saturday. There will be a tentatively scheduled TMT meeting on Friday, July 31 at 9AM if Salmon Managers have a recommended change in operation. Dave Swank, USFWS, will notify the Corps in advance if the meeting is not required.

### **Upcoming Summer Spill Operations**

Julie reminded the TMT that juvenile collection for transport will begin on August 1 at Lower Granite and Little Goose Dams. Summer spill operations for the second half of August will begin on August 15, as documented in the FOP and FPP.

**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 August 5 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**

**Wednesday, July 29, 2020**

**Minutes: Melissa Haskin, BPA (contractor, FLUX Resources)**

Today's TMT meeting was chaired by Julie Ammann, 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 summaries and official meeting minutes for the July 15 TMT meetings were approved with minor edits for typos and attendance.

#### **2. Lower Monumental Dam Operations - Julie Ammann, Corps, and Alexis Mills, Corps**

At last week's special Friday TMT call regarding Lower Monumental spill patterns, modified patterns were coordinated to manage TDG exceedances in the Ice Harbor forebay. Prior to last Friday's meeting, there were several days of exceedances and the Corps verified that the gage was accurate. After a long discussion, the group developed and approved a new operation in-meeting, noted in full on the TMT website, and implemented it over the weekend. As the group made the spill pattern on the fly, a few typos occurred in the documentation. Those have been corrected.

To complicate matters, yesterday, there was a dam safety issue with the cabling system in the navigation lock guide wall. The guide wall became detached and began to float towards the spillway. The project shut off the RSW and changed to a uniform spill pattern across the remaining seven bays in an effort to keep the guide wall from getting closer to the spillway. The project is working on an official memo documenting the incident, which will be distributed to FPOM.

Alexis Mills, Corps, reported on some implementation issues over the weekend, including a loss of data on July 23, which has been restored. There was also an issue with the spill pattern: the coordinated plan intended for 3 spill bays and RSW to be open; however, as head dropped, the project had to increase the number of gate stops to achieve the spill target, so they switched to a uniform pattern with 7 bays and the RSW open. The issue has since been resolved and should be rectified should the pattern be used in the future.

Mills reported that as of Friday, TDG has been below state water quality standards in both the Ice Harbor forebay and the Lower Monumental tailrace.

Doble testing began on Monday at Lower Monumental and will continue through the end of the week. It likely will not end before its scheduled end date of Friday. It has not caused an increase in TDG, even with no load (no generation) at the project and increased spill.

With TDG coming in lower, the Corps reverted to the bulk spill pattern in Fish Passage Plan yesterday (before the issue with guide wall arose, causing the change to uniform spill and no RSW).

TMT further discussed the modified spill patterns that were coordinated Friday. Some members were not able to make Friday's meeting and expressed that should the coordinated spill patterns be used in the future, it should be modeled at ERDC. Julie Ammann, Corps, said the Corps will investigate if there is funding for this. Ann Setter, Corps, mentioned that Ryan Laughery helped develop the patterns in the FPP and would be the best representative to discuss how the modeling was developed. She mentioned he may be able to provide video footage and information on historic modeling that may have gone through ERDC and informed the patterns. The Corps will reach out to him to see if he is able to provide further information.

The operation was not implemented long enough to get video footage. Members also expressed that should it be used again, that video footage may be useful to have.

### **3. Dworshak Operations - Jon Roberts, Corps NWW**

Jon Roberts, Corps, reported on operations at Dworshak Dam. The reservoir is drafting around a foot per day. The project is discharging 13.3 to 13.4 kcfs, spilling ~ 3 – 3.7 kcfs plus full powerhouse. During daylight from 10 am to 10 pm, the Corps is reducing spill to 3 kcfs to stay under the 110% TDG tailwater requirement since heat affects TDG. The project is spilling as much as possible at night to get as much water out as possible at night. TDG has been fluctuating within a 1% range in from 107 to 108%.

Water is making its way down to Lower Granite and taking about 2 days to arrive at the pool and a day to a day and a half to mix in the tailwater.

The tailwater at Lower Granite has been sitting right below 67°F both hourly and over the 12-hour average and the Corps expects the temperature to rise by half a degree as heat enters the region.

This week, temperatures in the region have been markedly high, running in the 100s both Monday and Tuesday. The heat is expected to remain through today and then rise further, hitting 110°F in Lewiston tomorrow and 108°F on Friday, then decreasing into next week.

Roberts reminded TMT that Doble testing restricts powerhouse discharge to 5 kcfs.

The temperatures at the Lower Granite tailrace are near 68 degrees and the Corps will send cool water from Dworshak through the weekend for temperature augmentation.

While Doble testing does impact water temperature by passing more warm water from higher in the forebay via the spillway, it cannot be completed in the dark and likely cannot be moved to a different date, but Setter will ask.

The RSW can also be closed to reduce temperature in the Lower Granite tailwater. Scott Bettin, BPA, asked if that would be considered before flows drop all the way below 30 kcfs when the RSW would be closed per FPP criteria. Should Dworshak operate to full powerhouse for the rest

of the month, there will only be 3-4 days of spill left. However, sometimes, full powerhouse is not needed all the way through August. It is too early to tell, said Roberts. Salmon managers will meet to discuss the options and an unscheduled TMT call will tentatively be put on the calendar for this Friday. BPA encouraged salmon managers to figure out what is possible and then BPA and the Corps can figure out how to implement.

#### **4. Reminder of Upcoming Summer Spill Operations - Julie Ammann, Corps**

Ammann reminded the group that juvenile collection for transport will begin on August 1 at Lower Granite and Little Goose dams with the first truck leaving August 3. Additionally, summer spill is reduced starting August 15, as defined in the FOP.

#### **5. Next TMT**

The next TMT meeting is a special call tentatively scheduled this Friday, August 7 at 9 a.m. to discuss the Lower Granite RSW. (At the time of these notes, that meeting was cancelled).

#### **Today's Attendees:**

<b>Agency</b>	<b>TMT Representative</b>
Army Corps of Engineers	Lisa Wright, Julie Ammann (chair)
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	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	Absent
Kootenai Tribe	Absent
Spokane Tribe	Absent

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

Corps – Jon Roberts, Chris Peery, Alfredo Rodriguez, Aaron Marshall, Alexis Mills, Laura Hamilton, Willow Walker, John Heitstuman

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

DS Consulting – Emily Stranz (Facilitator), Colby Mills

FPC – Erin Cooper

Chelan PUD – Jay Fintz

Snohomish PUD – Brian Zigler, Mike Shapley

Columbia Basin Bulletin – Bill Crampton

Clearing Up – K.C. Mehaffey