

COLUMBIA RIVER TECHNICAL MANAGEMENT TEAM

August 12, 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 and Summaries

TMT members approved the official minutes and facilitator's summaries from the July 24 and August 5 meetings. Minutes and summaries from July 29 and August 7 will be reviewed at the next TMT meeting.

Dworshak Operations

Jon Roberts, Corps, reported on operations at Dworshak Dam. The project is currently discharging between 9.2-9.3 kcfs, putting the pool elevation at 1,562.23 feet. The project is drafting to stay above the 1,535 feet target by the end of the month.

TDG is right around 100%, although it did go up over the last couple days up to 101% in the tailrace due to the hot weather. The hatchery TDG is still well below 99%.

Temperatures in Anatone are 72 degrees F, 70 degrees F at Orofino, the Clearwater is about 52-53 degrees F, the Dworshak tailwater is below 46 degrees and the Lower Granite tailwater is at 67.2 degrees F. Jon noted that Lower Granite tailwater temperatures did jump slightly above 68 degrees F on some 1-hour readings yesterday with the warm weather on Monday and Tuesday, however, the overall 12-hour average did not exceed 68 degrees F.

The Lower Granite tailwater has since cooled down to 67.25-67.5 degrees F, helping to lower the 12-hour average. Temperatures are cool today and will continue throughout the night and tomorrow; surface heat will dissipate, and the pool is expected to cool. Friday will see temperatures warming back up, rising through Saturday and Sunday up to 104-105 degrees F in the Lewiston / Clarkston area before cooling back down starting Tuesday. The Corps will continue to evaluate as the heat wave moves through the system.

Tonight, at midnight, the project will pick discharge back up to full powerhouse, between 9.9-10 kcfs, to get cool water down to the Lower Granite pool by Saturday. The additional water of about 10 kcfs is needed to keep the entire forebay and tailwater cool. The project plans to run at full powerhouse for the next 5 days, then taper down to 9.2 kcfs.

In response to a question from the TMT, Jon noted that the Corps' estimated August 31 elevation for Dworshak will be close to 1,540 feet. He also noted that the new weather station in the lower part of the Lower Granite reservoir has been helpful in tracking air temperatures and wind which are important factors in mixing the pool. The Corps has been utilizing the data in this year's calibrations and next year it will be fully integrated into the model.

Port of Clarkston SOR for Lower Granite Pool

Wanda Keefer, Port of Clarkston, presented an SOR (posted on the TMT website) which requests to raise the Lower Granite pool from the current 2-foot raised MOP range (735.0-736.5 feet) to a 3.5-foot raised MOP range (736.5-738.0 feet) as soon as possible and hold until 1700 August 29, 2020. The request comes as the Port of Clarkston and the Lewis-Clark Terminal (LCT) work to light-load grain into barges.

The barges would then be “topped off” with grain at the Port of Lewiston before transportation down river. Wanda noted that sedimentation at the Port has prevented adequate depth for fully loading barges and this is the height of harvest season. Thus, the Port is requesting a temporary increase in pool elevation to allow more room for operating the barges.

In 2018 the Port requested a raised pool to allow cruise ship passage in the navigation channel. This request is for barge access to the grain terminal. Wanda noted that it is the Port’s responsibility to dredge this section of the terminal and they are working with the Corps to invest in berth dredging, which once complete, would mitigate the need for raising water levels in the future. They have applied for funding through the Corps for FY22.

TMT Members posed a range of clarifying questions as they raised concerns about the effectiveness of the proposed operation, and the adverse biological effects. Concerns included:

- Incoming heat wave to the area and impacts on Lower Granite reservoir water temperatures.
- Increasing adult and juvenile fish travel times in the Lower Granite reservoir.
- The project has already been at raised MOP, this request would raise the elevation even higher.
- Implementation and/or mitigation of the request could potentially require additional water released from Dworshak.
- Impacts to operation of the RSW.
- Reductions in spill volumes may be needed to raise the reservoir elevation and would be outside of the Spill Operations Agreement if implemented prior to 15 August.
- These requests would recur in the future until dredging can be funded as a long-term solution to sedimentation in the Port.
- Power generation may be impacted in order to raise the reservoir elevation.

Wanda noted that grain operators could be made available to clarify any further questions if needed and emphasized that even 2 additional inches of water would help the situation to keep grain barges from getting stuck on the bottom of the river.

Aaron Marshall, Corps, presented 2 potential operations for implementing the SOR (posted on the TMT website), noting that these were just 2 options and there could be others:

1. Begin 12 August

- a. Spill through RSW only, close all other spill gates early
- b. Raise Lower Granite forebay to 736.5-738.0 feet, approximately 1-2 days to achieve
- c. Operate forebay from 736.5-738.0 feet through 29 August @ 1700 hours
- d. Operate forebay from 735.0-738.0 feet from 29 August @ 1700 hours through 31 August @ 2400 hours (end of MOP)

2. Begin 15 August

- a. Spill through RSW only, close all other spill gates as scheduled per FOP Table 4
- b. Raise Lower Granite forebay to 736.5-738.0 feet, approximately 1 day to achieve
- c. Operate forebay from 736.5-738.0 feet through 29 August @ 1700 hours
- d. Operate forebay from 735.0-738.0 feet from 29 August @ 1700 hours through 31 August @ 2400 hours (end of MOP)

TMT took a brief caucus to discuss the options and concerns offline. Following the caucus, TMT members were polled on both proposed SOR implementation options:

Poll on Option 1 – Begin August 12

NOAA	Objection w/o elevation	USFWS	Objection w/o elevation
OR	Objection w/ elevation	ID	Objection w/ elevation
WA	Objection w/o elevation	MT	No objection
Kootenai	Absent	Spokane	Absent
Colville	Absent	Nez Perce	Objection w/ elevation
Umatilla	Objection w/ elevation	Warm Springs	Absent
BOR	No objection	BPA	No objection
Corps	No objection		

Poll on Option 2 – Begin on August 15

NOAA	Objection w/o elevation	USFWS	Objection w/o elevation
OR	Objection w/ elevation	ID	Objection w/ elevation
WA	Objection w/o elevation	MT	No objection
Kootenai	Absent	Spokane	Absent
Colville	Absent	Nez Perce	Objection w/ elevation
Umatilla	Objection w/ elevation	Warm Springs	Absent
BOR	No objection	BPA	No objection
Corps	No objection		

For clarity and transparency, some TMT Members provided rationale for their polling responses:

- **NOAA:** NOAA recognizes the need to balance the multiple authorized purposes for these projects, and if the effects appeared to be neutral then they would not object, however, NOAA's primary concerns around water temperatures in the Lower Granite tailrace and forebay, which are currently near critical thresholds. Lessons learned in the past point to the impact of temperature impacts on adult passage in the Lower Granite ladder and without a clearer understanding of the outcome of operation NOAA cannot support this SOR. NOAA was open to considering a revised SOR with additional analysis and revised timeframe for a start after the heatwave.
- **WA:** WA echoed the concerns voiced by NOAA and was also concerned about the impacts on sub-yearling survival and travel times. Additionally, potential implications on adult trap operations led to their objection. WA noted support for other TMT members to elevate the issue.
- **OR:** OR did not see the SOR as a balancing action and noted that it has harmful changes to fish protection measures.
- **USFWS:** USFWS echoed NOAA's concerns, noted uncertainties around forebay temperatures, and complications with leaving the RSW in place. USFWS would also be willing to consider a revised SOR with a later start date.
- **ID:** ID did not support using Dworshak water for depth compensation or to mitigate the action implemented. Additionally, ID was concerned with unintended impacts on the adult trap operations, noting the possibility of trap being shutdown due to water temperature and the impact that would have on the state's broodstock collection.
- **Nez Perce:** Nez Perce echoed other fish impact concerns previously voiced, including impacts in the tailrace and the ability to implement trap operations for hatchery broodstock collection. Nez Perce is also concerned about reduction in spill volumes in Option 1, which would be a deviation from the Spill Operations Agreement.
- **BPA:** BPA recognizes that this was a difficult subject and noted that there did not seem to be a long-term solution ready for implementation in the Port with dredging challenges. BPA agreed with fish concerns identified by Nez Perce and had concerns about the impacts on power, as increased flow out of the RSW reduces generation at Lower Granite.

- **Corps:** The Corps recognizes the multi-purpose system with competing demands and noted that they attempt to strike a balance. The Corps could implement the options laid out, but not without more regional support.
- Umatilla, BOR, and MT did not have additional comments.

The Corps stated that without regional support they would not implement the SOR.

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 19 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, August 12, 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 July 24 and August 5 facilitator's summaries and official TMT minutes were approved with no additional edits.

2. Dworshak Operations - Jon Roberts, Corps

Jon Roberts, Corps, reported on operations at Dworshak Dam. The project is discharging below full powerhouse, at 9.2-9.3 kcfs and sitting at 1,562.33 ft. elevation. TDG in the tailrace is ~100% today, down from this weekend, when it was near 101% due to a heat wave. The hatchery is below 99% TDG.

Water temperature in the Snake River at Anatone is currently 72°F. At Orofino on the Clearwater River, temperatures are 70°F and in the Dworshak Dam tailwater, temperatures are around 45°F. Due to hot weather in the area on Monday and Tuesday, the Lower Granite tailwater exceeded 68°F as measured by the 1-hour readings between 1000 and 1400 yesterday. However, the 12-hour average never exceeded 68°F.

The 10-day weather forecast shows cooler weather overnight with some warm weather entering the area Friday and rising through the weekend. Later in the forecast, around days 8 and 9, nighttime temperatures should drop again. Of note, the summer spill levels change Friday at midnight, per the FOP.

Roberts shared an operational scenario, available on the TMT website. Tomorrow, the Corps will increase Dworshak Dam to full powerhouse (~9.9-10 kcfs) to push cooler water to Lower Granite in anticipation of the coming heatwave. This wave will be shorter so the Corps expects to send less water than last week – about 10 kcfs. They will hold this for about 5 days and then taper down to about 9.2 kcfs based on the forecast at that time.

The end of August elevation is looking to be about 1540 ft.

Charles Morrill, WA noted that about 3-4 years ago a new weather station was added below Lower Granite. He asked if it has been helpful for forecasting this season. Roberts said it has been used to track air temperatures and wind. The Corps has started to incorporate the data into its models and is expecting to have the data fully integrated next year.

3. Port of Clarkston SOR for Lower Granite Pool - Aaron Marshall, Corps NWD, and Wanda Keefer, Port of Clarkston

Much of today's discussion centered around an SOR from the Port of Clarkston, which is located on the Snake River near the Idaho/Washington border. The SOR, available in full on the TMT website, requests that the Lower Granite pool be raised above Minimum Operating Pool (MOP) to between 736.5 and 738.0 feet as soon as possible through 17:00 on August 29, 2020.

Wanda Keefer, Port Manager for the Port of Clarkston, shared that the reason for the request is to support product shipping out of the Lewis-Clark terminal, specifically wheat. She added that the port is trying to keep fish safe by keeping tugs from getting caught up in the port.

Wheat harvest started early this year and is expected to continue through the end of the month. She noted it is in the best interest for the farmers to move the product downriver as soon as possible. Tariffs have impacted the market and it is important that farmers get their product to market while there is still demand, she said.

Keefer shared that the vessels need about 9-10 feet of water depth to load. Raising to the full pool would lessen but not completely alleviate the problem. Barges are currently loading in the terminal and topping off upstream at the Port of Lewiston. The area in front of the grain terminal is uneven. The Corps performs bathymetric surveys every September so the last survey on the area was from September 2019.

The port has a meeting set up with the Corps on October 28 to talk about the sediment management plan. The port needs to coordinate with the Corps to plan dredging. It does not have the authority to take on dredging alone, said Keefer. The last time dredging occurred was 2015.

Pool requests are common from the Port of Clarkston, however, they are usually coordinated for cruise ship traffic. Due to COVID-19, there has not been cruise traffic this year and Keefer does not know when it will pick up again; however there are cruise ships scheduled through September. The wheat loading issue is a new problem this year since in the past the pool has been raised for the cruise ships. The port will likely request additional depth next year for cruise ships.

TMT members questioned the specifics of the SOR including the depth request and dates of the SOR. Keefer shared that the requested elevation came from grain terminal observations. The maximum the pool can be raised to is 738 ft., said Aaron Marshall, Corps. Julie Ammann, Corps, asked what the port would gain if they received part of the elevation request. Keefer replied that anything would help, even inches. She added that Lewiston and Clarkston are cooperative ports and that without the request farmers could choose a different competitor for moving their grain.

Keefer was asked if the port monitors flows out of Hell's Canyon. Keefer said the port does not and that what is most important is the availability of tugs rather than the nuances of flows.

Jonathan Ebel, ID, and Jay Hesse, Nez Perce, wondered about the effect on the Lower Granite forebay and tailrace temperatures. Roberts shared that it will depend on when filling occurs, since there is an incoming heat wave. Filling it immediately would have a different effect than filling it in the next few days, especially if it were to happen after August 15, when the spill

levels change. If the operation were to start the 15th, generation would be cut and the pool would be filled with warmer water.

Members also expressed concern for what would happen to the stored water when the requested operation ends on August 29, considering that the MOP operation ends September 1. Aaron Marshall, Corps, suggested instead of drafting all the water after the operation that the forebay be operated within the top 3 feet to transition to the end of MOP.

Marshall provided two implementation options, available on the TMT website:

1. Begin 12 August
 - a. Spill through RSW only, close all other spill gates early
 - b. Raise Lower Granite forebay to 736.5-738.0 feet, approximately 1-2 days to achieve
 - c. Operate forebay from 736.5-738.0 feet through 29 August @ 1700 hours
 - d. Operate forebay from 735.0-738.0 feet from 29 August @ 1700 hours through 31 August @ 2400 hours (end of MOP)
2. Begin 15 August
 - a. Spill through RSW only, close all other spill gates as scheduled per FOP Table 4
 - b. Raise Lower Granite forebay to 736.5-738.0 feet, approximately 1 day to achieve
 - c. Operate forebay from 736.5-738.0 feet through 29 August @ 1700 hours
 - d. Operate forebay from 735.0-738.0 feet from 29 August @ 1700 hours through 31 August @ 2400 hours (end of MOP)

Marshall added that these options are just examples of how the operation could be implemented and the Corps does not have a preference for either one. Also, there may be other options to consider that are implementable. Ammann mentioned the Corps relies on its regional partners to consider the pros and cons of each.

Salmon managers and Action Agencies broke for caucuses. After returning, the salmon managers wondered if the port could wait until the current heat wave was over but did not officially propose a formal third option for voting.

Emily Stranz, DS Consulting, polled TMT agencies and representatives on both options.

Polling Results:

Agency	OPTION 1	OPTION 2
Army Corps of Engineers	No objection	No objection
Bonneville Power Administration	No objection	No objection
Bureau of Reclamation	No objection	No objection
NOAA Fisheries	Object without elevation	Object without elevation
US Fish & Wildlife Service	Object without elevation	Object without elevation
Washington	Object without elevation	Object without elevation
Oregon	Object and elevate	Object and elevate
Idaho	Object and elevate	Object and elevate
Montana	No objection	No objection
Nez Perce Tribe	Object and elevate	Object and elevate
Umatilla Tribe/CRITFC	Object and elevate	Object and elevate

Agency	OPTION 1	OPTION 2
Colville Tribe	Absent	Absent
Warm Springs Tribe	Absent	Absent
Kootenai Tribe	Absent	Absent
Spokane Tribe	Absent	Absent

The following comments were added to the record:

NOAA: Claire McGrath, NOAA, shared that she recognizes there is a need for balance when there are competing interests. She noted that if the proposed operation was neutral in biological effects, then NOAA would not object and elevate. McGrath noted her concern is that water temperatures are near critical thresholds in the Lower Granite forebay and she does not have a clear understanding of how this operation will affect that. She would be interested in further analysis by the Corps and open to hearing a revised SOR.

WA: Charles Morrill, WA, expressed concern for the impact to subyearling Chinook passage and adult trapping that is critical to broodstock management. He noted he strongly supports elevation by other members, though he did not elevate on behalf of his agency.

OR: Erick Van Dyke, OR, did not see the SOR as a balanced action and noted that it has harmful impacts to fish protection measures.

USFWS: Dave Swank, USFWS, shared that his decision was influenced by the uncertainty around temperature effects, particularly since the RSW at Lower Granite is still open. He expressed frustration on the short notice of the SOR, which did not allow for much time for consideration of the effects of the SOR and said he would be willing to consider a revised SOR in the future.

ID: Jonathan Ebel, ID, shared that his position is against using Dworshak Dam cooling water to assist with depth concerns at the Clarkson grain terminal. He is concerned about uncertainty of what filling towards full pool would do to adult trapping and passage at Lower Granite. The length of the SOR is of concern to him as it could threaten broodstock collection and wild steelhead sampling. Because of potential fish impacts, he feels the SOR should be elevated.

Nez Perce: Jay Hesse, Nez Perce, shared his objection based on concerns for fish impacts, as well as tailrace and trap operations.

BPA: Tony Norris, BPA, said that Hesse identified some valid fish concerns, adding that there are power impacts as well. Increased flow through the RSW at higher forebay elevations reduces generation at Lower Granite. Additional augmentation may require spill from Dworshak Dam, which would impact the power system. BPA is concerned that there does not seem to be a solution in the near future since there are challenges when it comes to dredging in that area. Even if dredging were to occur, the next runoff event would likely result in the same situation. Norris added that because of this, it seems like this is a good discussion for the next level of forums.

Corps: The Corps understands there are competing demands and attempts to strike a balance in operations. The Corps could implement either of the proposed operations but not without broader regional support.

4. Next TMT and Other

The next TMT meeting is call on August 19 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	Erick Van Dyke
Idaho	Jonathan Ebel
Montana	Jim Litchfield
Nez Perce Tribe	Jay Hesse
Umatilla Tribe/CRITFC	Tom Lorz
Colville Tribe	Absent
Warm Springs Tribe	Absent
Kootenai Tribe	Absent
Spokane Tribe	Absent

Other Attendees (non-TMT members):

Corps – Dan Turner, Jon Roberts, Chris Peery, Alexis Mills, Laura Hamilton, Aaron Marshall, Willow Walker, Eric Hockersmith

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

DS Consulting – Emily Stranz (Facilitator), Colby Mills

Wanda Keefer – Port of Clarkston

Snohomish PUD – Julie Potter

FPC – Brandon Chockley