

COLUMBIA RIVER TECHNICAL MANAGEMENT TEAM

July 8, 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/>.

Fish Update

Claire McGrath, NOAA, provided an update on fish passage as of July 7, which is posted on the TMT website. She noted low numbers of sub-yearling Chinook passage through all projects. Adult summer Chinook passage is declining; however, the projects have increasing passage of steelhead and sockeye. At Bonneville Dam, summer Chinook YTD passage is 69,285, or 90% of the 10-year average; steelhead YTD passage is 9,642, or 47 % of the 10-year average; and sockeye YTD passage is 3,002, or 106% of the 10-year average.

Juvenile Transportation

Dave Swank, USFWS, reported on FPAC's conversations around resuming juvenile transport on the Snake River. Their pending recommendation is to resume transport on August 1 at Lower Granite and Little Goose dams. Salmon Managers recommend that transport does not resume at Lower Monumental Dam. A formal SOR will be presented at the next TMT meeting with more robust discussion and official polling; this notification was to allow for enough time for the Corps to begin planning operations.

Doug Baus, Corps, confirmed the tentative start date of transport operations at Lower Granite and Little Goose, and Action Agencies will finalize coordination at the next TMT meeting on July 15. The Corps appreciated the advance notice.

Dworshak Operations

Jon Roberts, Corps, reported on operations at Dworshak Dam. The project has started increasing discharge to begin temperature flow augmentation. Current outflows are between 2.0-2.1 kcfs and the pool is nearly full.

TDG remains below 101% at the hatchery and is fluctuating as adjustments are made to keep the pool as cool as possible to maximize available water for the summer; TDG has not exceeded 110%. As flows flatten out, the TDG will stay at a consistent level.

The Snake River at Anatone is 64.69 degrees F. Temperatures have been increasing over the past few days due to the weather and are forecasted to rise further. Jon noted that the Lower Granite tailwater currently remains cool, at 62.5 degrees F, although temperatures are projected to climb with the coming heat this weekend, and into the summer.

The NWRFC 10-day weather forecast shows temperatures rising to the mid to high 90s through Saturday, which is why the project started moving water today, as it takes several days for the passing water to affect the Lower Granite tailwater. Temperatures will hang in the 80-degree F range through days 6-7, and although air temperatures could go up or down, they typically trend upward this time of year.

The project will gradually ramp up to 7,000 cfs tonight, with a small jump to 9,400-9,500 cfs on Thursday. With the rising temperatures, these outflows will ultimately keep the pool at Lower Granite

below 68 degrees F. The operational model shows that without the temperature flow augmentation, it is very difficult to keep temperatures in the pool cool.

In response to a question from Dave, Jon reviewed how the Corps targets Dworshak reservoir elevations for the end of August. The operation has three main components (as stated in the Water Management Plan):

1. Maintain the Lower Granite tailwater below 68 degrees;
2. Do not exceed the 110% TDG gas cap; and,
3. A pool at or above 1,535 feet by the end of August (below 1,535ft is Dworshak Board water).

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 July 15th 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, July 7, 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. Fish Update - Claire McGrath, NOAA

Claire McGrath, NOAA, provided an update on fish. Besides a small number of subyearlings moving through all of the projects, there is little to report on juveniles.

For adults, there have been modest declines in summer Chinook passage, increases in steelhead and strong passage of sockeye. At Bonneville, summer Chinook are at 69,285, which is 168% of last year and 90% of the 10-year average. Steelhead are at 9,642, which is 124% of last year and 47% of the 10-year average. Sockeye are holding steady and are currently at 302,000 for the year, which is well above last year and 106% of the 10-year average.

2. Juvenile Transportation - David Swank, USFWS, and Doug Baus, Corps

Dave Swank, USFWS, reported that while there were varied opinions at FPAC regarding juvenile transportation, the group will submit an official SOR at next week's TMT, which will request an August 1 start of Snake River truck transport at Lower Granite and Little Goose, but not at Lower Monumental. Some salmon managers preferred starting even earlier, while others preferred sticking with the August 15 start date. After discussion, they landed on August 1 as the recommended start date. There will be more to come on this at next week's meeting. Doug Baus, Corps, replied that they appreciate the advance notice and will plan for starting truck transport at Lower Granite and Little Goose on August 1, and will finalize coordination with the SOR at next week's TMT.

3. Dworshak Operations - Jon Roberts, Corps NWW

Jon Roberts, Corps NWW, reported on operations at Dworshak Dam. As of today, Dworshak will start to increase outflow for temperature flow augmentation. Outflow is currently 2.1 kcfs and the pool is nearly full at 1599.9 feet, which means this year's operation will have the full range of the pool down to 1,535 ft. Outflow will be steadily increased throughout the day today, up to 7 kcfs by tonight, then up to 9.4 kcfs tomorrow.

TDG at the hatchery has been below 101% and has fluctuated in the river as the Corps makes adjustments in outflow to keep the pool as full as possible, but has not exceeded 110%. As outflow starts to flatten out, TDG will become more consistent throughout the day.

Water temperature in the Snake River at Anatone has increased the past few days and is now 64.69°F, and is expected to continue to increase with warming weather. Lower Granite's

tailwater is currently 62.5°F and is projected to increase over the weekend with the warmer weather.

The 10-day weather forecast shows an incoming heat wave with air temperatures in the mid- to high 90s throughout much of the basin into early next week. By days 6-8 of the forecast, temperatures should be in the 80s. The weekend warming is the reason behind increasing outflows today – it takes a couple days for the water to travel from Dworshak to Lower Granite, then another couple days for the cooler water to mix with other upstream water sources and have an effect on the Lower Granite tailwater.

Roberts shared two operational scenarios (*Figure 1*). Based on the model results, the Corps plans to gradually increase discharge to 7 kcfs tonight and then 9.4–9.5 kcfs tomorrow through the weekend. The model shows this will result in the Lower Granite tailwater temperature slowly climbing but staying below 68°F. Roberts showed a second scenario to compare the effects of not increasing outflow and passing inflow instead of starting flow augmentation. The model shows the Lower Granite tailwater approaching but not quite exceeding 68°F. If the Lower Granite tailwater were to exceed 68°F, then a significant volume of water would be released from Dworshak to bring the Lower Granite tailwater back below the 68° threshold.

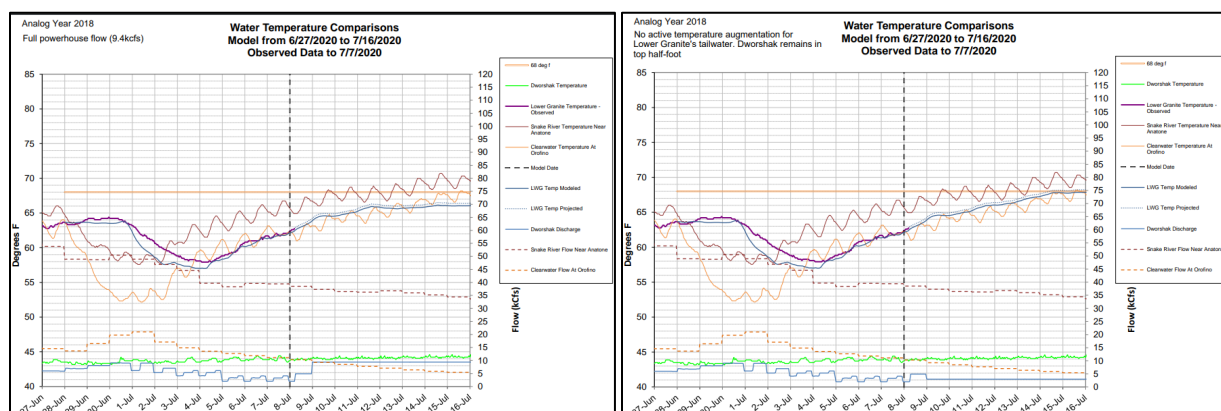


Figure 1. Water Temperature Model Results for July 8-16 with planned operation (left) compared to no temperature flow augmentation (right).

Swank noted that FPAC was wondering how the Corps uses the target forebay elevation of 1,535 feet for the summer operation. Roberts replied that the decision is driven by the Water Management Plan and BiOp, which requires the tailwater at Lower Granite to remain under 68°F. The Corps can utilize discharge out of Dworshak up to 110% TDG, which is about 12.5 kcfs depending on air temperatures. Drafting below 1,535 ft would have to be coordinated by the Dworshak Dam Board and Nez Perce, but it is possible to come in above 1,535 ft at the end of August should all of the water not be needed.

4. Next TMT

The next TMT meeting is call on July 15 at 9 a.m.

Today's Attendees:

Agency	TMT Representative
Army Corps of Engineers	Doug Baus (Chair), Lisa Wright, Julie Ammann
Bonneville Power Administration	Tony Norris
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	Absent
Umatilla Tribe/CRITFC	Tom Lorz
Colville Tribe	Absent
Warm Springs Tribe	Absent
Kootenai Tribe	Absent
Spokane Tribe	Absent

Other Attendees (non-TMT members):

Army Corps of Engineers – Dan Turner, Jon Roberts, Eric Hockersmith, Chris Peery, Alfredo Rodriguez

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

Columbia Basin Bulletin – Mike O'Bryant

DS Consulting – Emily Stranz (Facilitator), Colby Mills

Idaho Power – Frank Gariglio