

COLUMBIA RIVER TECHNICAL MANAGEMENT TEAM

August 8, 2018

Facilitator's Summary

Facilitator: Emily Stranz; Notes: Charles Wiggins, 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://www.nwd-wc.usace.army.mil/tmt/agendas/2018/>

Dworshak Operations

Steve Hall, Corps, updated TMT on Dworshak Dam operations and forecasts. Currently the project is at 1,560.3 feet elevation, with 1.4 kcfs inflows and discharge of 13 kcfs. The total dissolved gas in was 108.7% at the hottest part of the day yesterday, and is 107.8% now. TDG is 101% at the hatchery.

Idaho Power responded to the heat with an increase in discharge from Hells Canyon; they are forecasting a release of 22.5kcfs today. Weather in Lewiston is projected to be hot, ranging from 105 to 111 degrees F over the next few days, not cooling until Saturday or Sunday (8/11-12). The long-range climate forecast is showing a high probability of temperatures above average for the next few months.

Water temperature at Lower Granite was 67.8 degrees F in the tailwater, with a few hours above 68 degrees yesterday. The 12-hour average was 68.02 degrees F. Steve reviewed a temperature model run from this morning, noting that the run includes yesterday's temperature exceedance; Steve explained that they expect that there will be a few more exceedances in the coming days due to the hot weather and warm water releases from Hells Canyon. The model shows that a discharge of 10kcfs will hug 68 degrees F. He noted that the RSW at Lower Granite Dam is in operation still, as the flow criteria to close it (see the Fish Passage Plan) have not yet been met, and the dam is passing warm water.

On Monday the Corps increased discharge from Dworshak to 13 kcfs to try counteracting the warming water at Lower Granite. The Dworshak water is expected to reach Lower Granite later today, but will probably not be sufficient. Responding to a question from Jay Hesse, Nez Perce, Steve said a flat flow of 8.7 kcfs through the rest of August is needed to get to 1,535 feet by August 31. Steve noted that the nights are getting longer and cooler, however, cautioned that they will likely run out of water before August 31st, and so need to consider whether to continue operating to a 67 degree F target or change the criteria they are attempting to achieve in order to stretch the water and increase flexibility. Jay expressed concern over water temperatures in September, noting that in the past couple of years Dworshak has been above 1,535 feet at the end of August, allowing more than the 200 kaf of Nez Perce water to be released to manage temperatures. Despite the added water, the hatchery has still experienced pre-spawn mortality.

Paul Wagner, NOAA, reported that adult counts are low at all the projects, which is typical for this time of year. Sockeye are winding down and fall Chinook and steelhead are still lower down in the system. Juvenile passage is also relatively low, with less than 1,000/day passing Lower Granite Dam for the last 4 days.

After a caucus, Salmon Managers requested that the Corps target 68 degrees F tailwater temperatures at Lower Granite (instead of the current 67 degrees F target). They also requested that the RSWs at Lower Monumental and Lower Granite be closed as soon as possible. Furthermore, they agreed that the Corps should use their discretion to act when they see an opportunity to reduce flow and conserve water at Dworshak. They asked that if so, the Corps inform TMT at the next scheduled meeting.

→ ACTION: The Corps will target 68 degree F water temperature in the Lower Granite tailrace, and adjust operations as possible to conserve water at Dworshak. They will also start coordination today to close the

RSWs at Lower Monumental and Lower Granite and move to a no-RSW spill pattern.

Ice Harbor Generation

Tony Norris, BPA, reported that the very hot conditions in the Tri-Cities might require increasing power generation at Ice Harbor Dam. He noted that they are limited with how much energy they can import to the area, and wind generation generally decreases with the warm weather. If necessary, BPA will reduce spill in order to increase generation to meet the load needs and maintain MOP. There was brief conversation whether TMT would like to fill above MOP in order to attempt to offset a decrease in spill; however, this option was not pursued, as it would only reduce the likelihood of having to reduce spill, not guarantee it. Tony noted that if BPA does have to increase generation at ICH, it will notify the TMT via email as soon as possible.

The next TMT meeting will be face-to-face on August 15, 2018 at 9:00.

Columbia River Regional Forum
TECHNICAL MANAGEMENT TEAM OFFICIAL MINUTES
August 8, 2018
Minutes: Melissa Haskin, FLUX Resources

1. Introduction

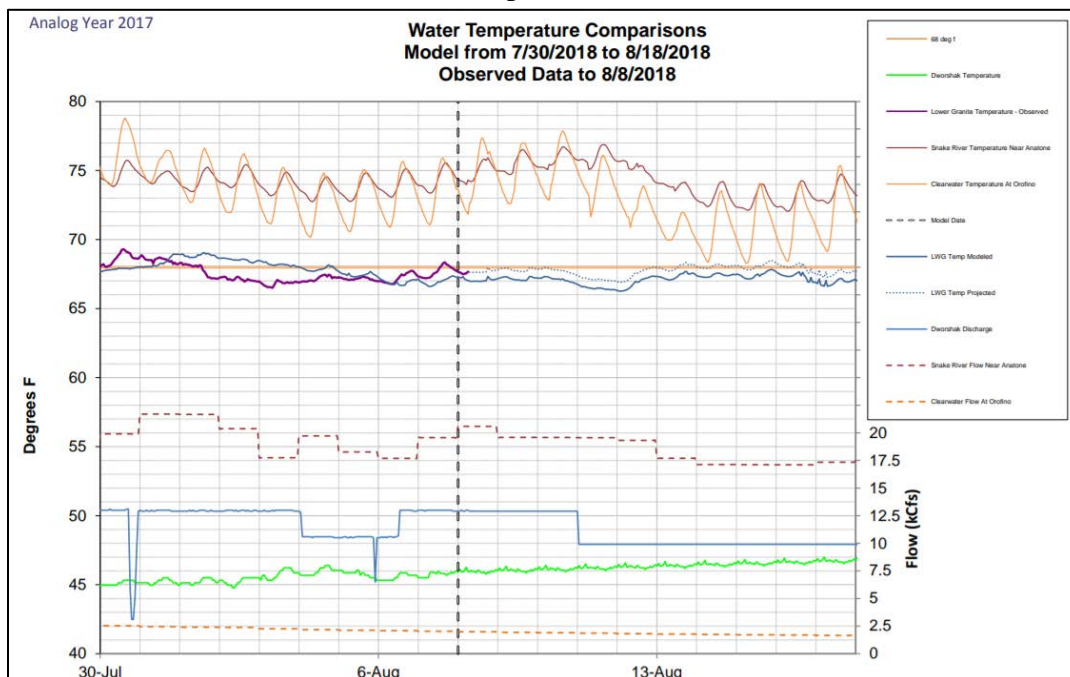
Representatives of Reclamation, Umatilla, NOAA, MT, Corps, ID, OR, Nez Perce Tribe, Colville Tribe, BPA, USFWS and others participated in today’s TMT meeting chaired by Doug Baus, Corps, and facilitated by Emily Stranz, DS Consulting. See the last page for a list of attendees.

2. Dworshak Dam Operations – Steve Hall, Corps

Steve Hall, Corps NWW, reported on operations at Dworshak Dam. The forebay is currently at 1560.3 ft elevation, with outflows of 13 kcfs and inflows of 1.4 kcfs over the last week. TDG is 108.7% at the warmest part of the day; and 107.8% currently (about 9 am on 8/8/2018); and 100.1% at the downstream hatchery. Temperatures are 67.8°F in the Lower Granite tailrace. Yesterday temperatures hit 68.36°F for a few hours in afternoon, raising the 12-hour average to 68.02°F. Hall reported that temperatures at Dworshak are high and Idaho Power is capitalizing on warmer temperatures. This is expected to continue. Hells Canyon outflows are forecasted at 22.5 kcfs on Thursday, August 9.

This week’s Lewiston, Idaho, weather is forecasted to be exceptionally warm, with temperatures reaching highs well above 100°F over the next few days. A blocking ridge on the Coast is blocking the cool air on the Pacific from reaching the area. Today’s expected high is 105°F. Tomorrow is projected to be 111°F. And Thursday is expected to have a high of 104°F.

Hall shared the most recent temperature model for Dworshak:



He shared that the models shows the exceedance yesterday. It predicts the temperature to be steady around the 68°F mark based on releases of Dworshak Dam dropping down to 10 kcfs tonight. He noted the model may not accurately reflect reality at the project due to current high temperatures, forecasted high temperatures and surface water temperatures. The RSW is passing warm water currently, at depths of up to 15 feet and likely will not be removed from service until later this week.

The Corps took action Monday, August 6, when the forecast for high temperatures came in and returned discharge to 13 kcfs on Tuesday, August 7. The cold water should arrive shortly and should provide some respite. However, it will not be sufficient, especially given the releases of hot water from Idaho Power at Hell’s Canyon.

Hall noted that even if the Corps changed action this evening at midnight, to get down to 1535 ft. elevation at Dworshak by the end of August, releases would need to be 8.7 kcfs on average. Currently releases are 10 kcfs and the temperature in the river is projected to stay near 68°F in the model – based on 10 kcfs releases. According to the models, temperatures are likely to remain above average for the remainder of August. If this is the case, cool water from Dworshak will run out well before the end of August, even with the sunlight hours per day decreasing and colder nights increasing. Hall stressed the importance of the Corps having the ability and flexibility to manage the limited cold water. He noted that last week, as the observed temperature at Lower Granite dipped below 67°F, the Corps could have backed off discharge to save water. However, because it had made the commitment to wait until Friday to see what the models predicted, it waited several extra days to drop outflows. He called on salmon managers, “Tell us what you want as far as temperatures and we will attempt to do the best job we can to meet that within the constraints we have.”

There are two approaches Hall sees moving forward: 1) Hope things cool off, even though they probably will NOT, and continue operating in the same manner as weeks prior; OR 2) Make the decision that it is more valuable to have water later and change the criteria in order to stretch the remaining water.

TMT reviewed the following before Salmon Managers broke to discuss options:

1) September Water Availability – Charles Morrill, WA, inquired about the long range weather and water supply forecasts. Hall reported that it will continue to stay hot and that water availability in September is a concern. Jay Hesse, Nez Perce, stressed the importance of September cool water availability to the tribe. In years past, there has been a little extra water above the 1535 going into August, which has provided a buffer. Even with this extra water, there can still be problems with pre-spawning mortality of fall Chinook at the Nez Perce hatchery, he said. Steelhead are also a concern in September.

2) Lower Granite (LWG) Removable Spillway Weir (RSW) – the RSW is still operating in accordance with the 2018 Fish Passage Plan (FPP). One option for cooling the LWG tailwater would be to close the RSW early.

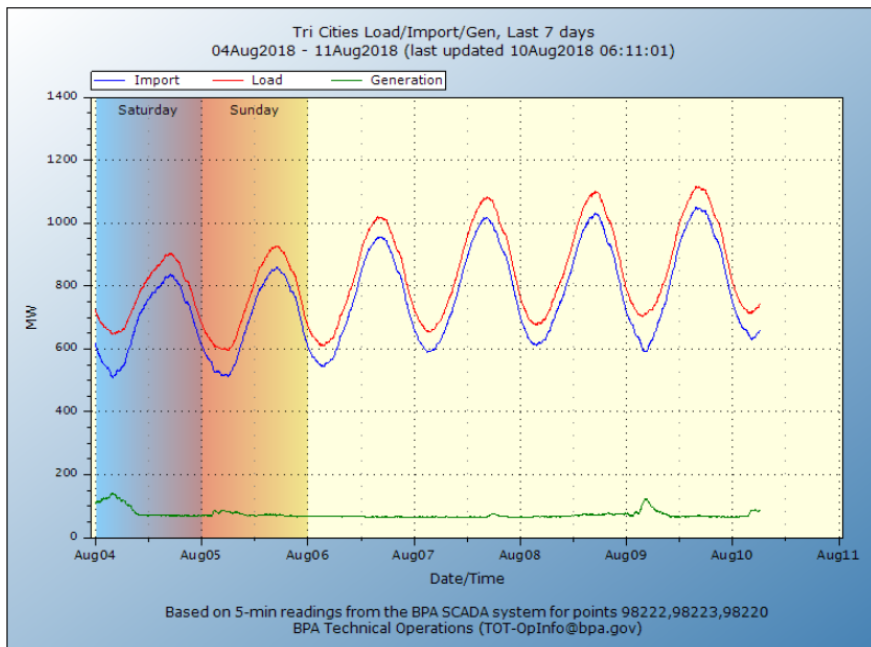
3) Passage – TMT reviewed fish counts as this data may influence Salmon Managers decision on how to preserve water and prioritize fish passage. Passage at Lower Granite has been less than 1,000 per day for the past 4 days, with similar trends other projects. Adult counts are low at all projects, which is typical for this time of year: As temperatures rise, adult counts drop (Paul Wagner reports). Summer Chinook are on the decline. Steelhead should pick up a little but not much.

Following this review of data, Salmon Managers caucused, then recommended that the Corps target 68°F in the Lower Granite tailrace, as opposed to 67°F they had been targeting. They agreed with Hall that the Corps should be allowed to use its discretion in reducing flows as necessary. Lastly, they called for the RSWs at both LWG and Lower Monumental (LMN) to be closed as soon as possible.

- ➔ Action – the Corps will modify its temperature target at Dworshak to 68°F instead of 67°F. The Corps will close the LWG and LMN RSWs ASAP and alter the spill patterns per the FPP.

2. Ice Harbor Generation - Tony Norris, BPA

Tony Norris, BPA, updated TMT on Ice Harbor Generation. The peak load at in the Tri-Cities is forecasted to be high coincident with forecasted temperatures in area of 109°F. The Tri-Cities Load/Import/Generation graph showed that load in the area was 1,000 megawatts yesterday. There are limited transmission paths to the Tri-Cities that can require an increase in generation from Ice Harbor Dam to meet load in the area. Currently, with wind generation in the area low and Ice Harbor on minimum generation, BPA may need to increase generation to meet the power demand of the Tri-Cities area. BPA will inform TMT members with 24-hours if this action is necessary. Umatilla, USFWS, and WA agreed that they were not happy about the potential cut in spill but understood that responding to any required increase in generation would be of shorter duration than filling above MOP.



3. Next TMT. The next TMT meeting is in-person on August 15, 2018 at 9 a.m.

Today's Attendees:

TMT Members:

Corps	Doug Baus (Chair), Julie Ammann
BPA	Tony Norris, Scott Bettin
Reclamation	Joel Fenolio
NOAA Fisheries	Paul Wagner
US Fish & Wildlife	Dave Swank
Washington	Charles Morrill
Oregon	Erick Van Dyke
Idaho	Russ Kiefer
Montana	Jim Litchfield
Nez Perce Tribe	Jay Hesse
Umatilla Tribe	Tom Lorz (CRITFC)
Colville Tribe	Sheri Sears
Warm Springs Tribe	N/A
Kootenai Tribe	N/A
Spokane Tribe	N/A

Other Attendees:

Corps – Steve Hall, Alfredo Rodriguez, Amanda Morelos, Jonathon Roberts, John Heitstuman, Laura Hamilton, Michelle Yuen

NOAA – Trevor Conder

Yakama Nation Fisheries – Tom Iverson

Columbia Basin Bulletin – Mike O'Bryant

DS Consulting – Emily Stranz (Facilitator), Charles Wiggins, Colby Mills

FLUX Resources – Melissa Haskin (Notetaker)