

COLUMBIA RIVER TECHNICAL MANAGEMENT TEAM

August 5, 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 Summary

TMT Members approved the facilitator's summary for the July 29 meeting. The summary and minutes for the July 24 and the minutes for the July 29 meeting will be reviewed at the next regular TMT meeting.

Dworshak Operations

Jon Roberts, Corps, reported on operations at Dworshak Dam. The project is currently discharging at full powerhouse and is drafting about 1 foot per day. Outflows at full powerhouse are almost 10 kcfs. Pool elevation is just under of 1,570 feet, which leaves 35 feet of water for the remainder of August.

Currently, TDG is between 106%-108% when spilling to the gas cap at full powerhouse due to the warmer weather. Cooler temperatures will allow for less augmentation water and no spill, and TDG is expected to decrease back down to 100% in the tailwater and hatchery.

Currently the Lower Granite tailwater is 67.1 degrees F, averaging 67 degrees F. Flows from the Snake River are 73 degrees F, and have been consistent over the past couple of days. Jon noted that they expect to see further drop in water temperatures, by .5 or 1 degree over the next 72 hours.

Following the recent extended heat wave, the next 10-days are forecasted to be cooler. A small system will change the weather pattern tonight, with temperatures dropping drastically for Thursday and Friday. Nighttime temperatures will drop into the weekend into the high 50s, with daytime temperatures forecasted to increase slightly starting next Saturday and Sunday. The cooler temperatures will keep the natural runoff in the Orofino, Clearwater, and Snake River a bit cooler.

The Dworshak model is currently calibrated to reflect the Lower Granite powerhouse outage for Doble testing¹ planned for the next two days and will transition back to normal on August 7. Looking out 5-10 days, the Corps will potentially reduce Dworshak outflow by 250-500 cfs to be as efficient with water as possible. This would only occur after the Lower Granite outage to accurately model and conserve water through August for a potential future heat wave or adding additional water in the fall at the discretion of Salmon Managers.

In response to a question regarding modeling and the ability to drop flows, Jon noted that the Corps runs the model daily and will send out an update with current model results to TMT Members and others in the region if the proposed operation changes.

Operations Review

Reservoirs: Chris Runyan, BOR, reported on Bureau of Reclamation projects:

¹ *Facilitator's Note: During edits, the Corps clarified that the Lower Granite powerhouse outage is for transformer maintenance related to results of last year's Doble test. There is no actual Doble testing at Lower Granite in 2020. For more information, refer to the 2020 Fish Passage Plan, Appendix A.*

- **Hungry Horse:** HGH is currently drafting, with a midnight elevation of 3,556.94 feet (3 feet from full); inflows of 1.4 kcfs and outflows of 2.7 kcfs. The project is operating to a 10-foot draft by the end of September and anticipates a slight decrease in outflow next week.
- **Grand Coulee:** GCL is slowly drafting. Midnight elevation was 1,288.6 feet. The project is currently drafting down to 1,279.5 feet by the end of August.

Chris also noted that Banks Lake will do the typical 5-foot draft by August.

Lisa Wright, Corps, reported on Corps of Engineers projects:

- **Libby:** midnight elevation was 2,451.6 feet, with average inflows of 12.0 kcfs, and outflows of 9.5 kcfs;
- **Albeni Falls:** midnight elevation was 2,062.3 feet, with average inflows of 12.6 kcfs, and outflows of 15.0 kcfs;
- **Dworshak:** midnight elevation was 1,570.2 feet, with average inflows of 1.0 kcfs, and outflows of 9.9 kcfs (full powerhouse);
- **Lower Granite:** average outflows of 37.0 kcfs;
- **McNary:** average outflows of 188.9 kcfs; and
- **Bonneville:** average outflows of 176.5 kcfs.

Lisa reported that the Lower Monumental RSW was reopened yesterday morning and the project is back to operating to FPP still patterns. The Memo for the Record will be updated via FPOM soon. Juvenile transport collection at Lower Granite and Little Goose Dams began on August 1, with the first truck leaving on August 3. Transport will continue as requested in the SOR.

Water Quality: Dan Turner, Corps, reported that Lower Monumental Dam is back to a bulk spill pattern with the reopening of the RSW. There was a jump in the tailrace TDG to about 118%, and the Corps is keeping an eye on it.

Fish: Claire McGrath, NOAA, reported that juvenile sampling is decreasing due to temperature restrictions and fewer out-migrants in the system. As expected, sub-yearlings are tapering down at all the projects. A juvenile summary is posted on the TMT website for further details.

At Bonneville, counts switched to fall Chinook on August 1; fall Chinook are passing at 300-500 per day and are at 93% of the 10-year average. Summer Chinook total count for the year was 88,182, or 90% of the 10-year average. Sockeye and steelhead are increasing in daily counts. Sockeye YTD passage is 341,000, or 110% of the 10-year average; steelhead YTD passage is 46,413, or 49% of the 10-year average; wild steelhead YTD passage is 24,000, or 54% of the 10-year average. Shad numbers are declining and are at 200% of the 10-year average. Lamprey YTD passage is 10,144.

At Lower Granite, summer Chinook will continue through August 17, with a YTD passage of 6,217, or 43% of the 10-year average. Summer jack YTD passage is 1,880, or 37% of the 10-year average; sockeye YTD passage is 438, or 47% of the 10-year average; steelhead YTD passage is 3,640, or 33% of the 10-year average; and wild steelhead YTD passage is 2,183.

Sockeye YTD passage at Priest Rapids is 289,000, or 110% of the 10-year average, and the entire counts are included in summary posted to the TMT website. Sockeye YTD passage is 1,976 at Ice Harbor, 986 at Lower Monumental, 625 at Little Goose, and 438 at Lower Granite. There were only 5 PIT-tagged fish to trap, and as Jonathan Ebel, ID, reported to FPAC yesterday, travel times have been observed between 13-15 days. Sockeye are starting to move into the Red Fish Lake area and first trappings have begun there.

Dave Swank, USFWS, noted that daytime lamprey counts at Bonneville are posted, and are substantially lower than the 10-year average. Many fish are passing at night and through lamprey passage systems at the project, so the passage estimate is 2-3 times more than what is currently posted, probably in the 20-30,000 range.

Charles Morrill, WA, reported 18 PIT-tagged Clearwater fish through the juvenile fish facility and 63 fish through the spillway (34 wild and 29 hatchery origin). The data show that fish are using the RSW to pass through the project more often than using the juvenile fish system.

Power System: Scott Bettin, BPA, reported that power generation is going up and down, and forecasts are looking good now that the heat wave has passed.

Questions and comments from members of the public: Ruth Burris, PGE, asked if the spill patterns will change on August 15 and how that will affect the spill volume. Lisa confirmed that from August 15-31, spill at projects will decrease down to FOP levels through the spillway weirs, unless they are closed for low flows. Operations will be consistent as written in the Fish Passage Plan (FPP). When the spillway weirs are not in operation, the spill level is maintained but distributed across the spillbays differently. The Corps is keeping an eye on the projects as they approach their low flow targets to close the spillway weirs, and expects to hit those targets at Lower Granite, Little Goose and Lower Monumental possibly sometime next week.

The next scheduled TMT meeting is a conference call on August 12 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, August 5, 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 July 29 Facilitator's Summary was approved with no additional edits.

2. Dworshak Operations - Jon Roberts, Corps

Jon Roberts, Corps, reported on operations at Dworshak Dam. The reservoir is sitting just below 1,570 ft. and drafting around a foot per day. The project is operating at full powerhouse. Over the weekend, as the Corps increased Dworshak spill due to a heat wave, TDG in the tailrace was between 106 and 108%. Now that the project has eliminated spill, TDG is around 100% in the tailwater and the hatchery is slightly above that.

Water temperature in the Snake River at Anatone has increased the past few days and is currently 73°F. The tailwater at Lower Granite is 67.1°F and has been averaging 67°F. Temperatures in the Snake should drop 0.5-1°F with cooler weather coming into the region.

The 10-day weather forecast shows slightly cooler weather. Over the weekend, nighttime temperatures will drop into the high 50s.

Roberts shared an operational scenario, available on the TMT website. The Lower Granite outage for Doble testing is hard to account for in the modeling due to where the water is pulling from. This may mean that modeled temperatures have been over-estimated by 0.5-1°F. To be efficient with remaining water, the Corps will likely reduce outflows out of Dworshak Dam by 250-500 cfs in the 5 to 10-day forecast. However, this will be managed in real time and the model will be updated after the Lower Granite outage has concluded. If the Corps reduces flows, they will notify TMT members via email and include the current model results.

3. Operations Review

3a. Reservoirs – Chris Runyan, Reclamation; Lisa Wright, Corps

Hungry Horse – Midnight elevation 3,556.94 ft., about 3 feet from full. Inflows are ~ 1.4 kcfs. Outflows are at 2.7 kcfs. With the 10-foot end of September draft approaching, there will be a slight decrease in outflows out of the project next week.

Grand Coulee – Midnight elevation 1,288.6. The end of August target is 1,279.5 ft. Banks Lake will target its 5-foot draft by the end of August.

Libby Dam – Midnight elevation 2,451.6 ft., yesterday's average inflows were 12 kcfs and outflows were 9.5 kcfs.

Albeni Falls – Midnight elevation 2,062.3 ft., inflows 12.6 kcfs and outflows 15 kcfs.

Dworshak Dam – Midnight elevation 1,570.2 ft., yesterday's average inflows 1 kcfs and outflows were 9.9 kcfs (full powerhouse).

Lower Granite – Yesterday's average outflows were 37 kcfs.

McNary Dam – Yesterday's average outflows were 188.9 kcfs.

Bonneville Dam – Yesterday's average outflows were 176.5 kcfs.

Additional updates: The Corps was able to get a tug in place to hold the navigation lock guide wall at Lower Monumental so the RSW was placed back in operation at 10:30 a.m. yesterday and the Corps is operating per the spill patterns in the Fish Passage Plan. Lisa also noted that collection for transport started at Lower Granite and Little Goose on August 1 and the first truck went out on August 3.

3b. Water Quality – Dan Turner, Corps

As Lisa mentioned in the reservoir review, Lower Monumental is back to spill pattern in the Fish Passage Plan with the RSW open. This has caused a jump in TDG in the tailrace, which is 118% right now and was 117% yesterday. There is a 5-day travel time to the Ice Harbor forebay and with cooler weather, there should not be any trouble in the downstream forebay.

3c. Fish – Claire McGrath, NOAA

At Bonneville, counts shifted to Fall Chinook on August 1. Summer Chinook ended the season at 88,182, which is 172% of last year and 90% of the 10-year average. Fall Chinook are at 300-500 per day (90% of last year and 93% of the 10-year average). Sockeye and steelhead are decreasing. Sockeye passed at 30-130 per day last week and 341,000 YTD (110% of the 10-year average). The YTD for steelhead at the project is 46,413 (49% of the 10-year average). Wild steelhead are at 24,000 YTD (54% of the 10-year average). Shad numbers are declining and are at 6.2 million for the year and lamprey are at 10,144.

At Lower Granite, summer Chinook are passing at 14-65 per day over last week. They are at 6,217 total for the year thus far, which is 148% of last year and 43% of the 10-year average. Jacks are at about 1,880 YTD, which is 37% of the 10-year average but 89% of last year. Sockeye are passing at 23 or per day with 438 YTD, which is more than last year but only 47% of the 10-year average. Steelhead are at 47-71 per day and 3,640 YTD, which is 88% of last year and 33% of the 10-year average. Wild steelhead are at 2,183, which is 44% of the 10-year average.

McGrath mentioned that anyone interested in the counts at Priest Rapids could refer FPC website. She shared a few numbers, including the YTD of sockeye, which is 289,000.

Sockeye at Ice Harbor are 1,976 YTD thus far. At Little Goose, that was 625 and at Lower Granite, that number was 438. Only 5 fish were PIT-tagged. They are starting to move into the Redfish Lake area.

As reported at previous TMT meetings, lamprey are low this year – much lower than the 10-year average. Many fish are passing at night or are using the Bonneville LPSs and thus not reflected in counts. Swank mentioned that the estimated total is about 2-3 times what is posted.

The first sockeye of the season was trapped at Redfish Lake, said Jonathan Ebel, ID.

Charles Morrill, WA, reported on PIT-tag detections between the Lower Granite juvenile fish facility (JFF) and the spillway (RSW). There have been 18 PIT-tagged fish through the JFF thus far and 63 Clearwater fish through the spillway. Of those, 34 were wild and 29 were from the hatchery. A question salmon managers have is if the fish continue to use the bypass even in warmer weather. Thus far, it shows they are using the RSW more so than the JFF.

3d. Power – Scott Bettin, BPA

Hot weather is behind us and there is not much to report.

4. Next TMT

The next TMT meeting is call on August 12 at 9 a.m.

Comments from the public:

Ruth Burris, Portland General Electric, asked if spill will change August 15. Wright replied that spill will decrease August 15-31 per the FOP. Typically, spill is through spillway weir unless it is closed due to low flow. The flow threshold is 30 kcfs at Ice Harbor, Lower Monumental, and Lower Granite and 35 kcfs at Little Goose. The spillway weirs are closed when flows drop below those thresholds (based on the previous day’s average outflow and the 3-day inflow forecast). For more information, see the FPP. Those flows may be hit as early as next week.

Today’s Attendees:

Agency	TMT Representative
Army Corps of Engineers	Lisa Wright, Julie Ammann (Chair)
Bonneville Power Administration	Scott Bettin
Bureau of Reclamation	Chris Runyan
NOAA Fisheries	Claire McGrath
US Fish & Wildlife Service	Dave Swank
Washington	Charles Morrill
Oregon	Erick Van Dyke
Idaho	Jonathan Ebel
Montana	Absent
Nez Perce Tribe	Jay Hesse
Umatilla Tribe/CRITFC	Absent
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, Chris Peery, Alexis Mills, Laura Hamilton

TMT – August 5, 2020

Clearing Up – K.C. Mehaffey

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

Columbia Basin Bulletin – Mike O’Bryant

DS Consulting – Emily Stranz (Facilitator), Colby Mills

Chelan PUD – Jay Fintz

Yakama Nation Fisheries – Tom Iverson

Portland General Electric – Ruth Burris