

COLUMBIA RIVER TECHNICAL MANAGEMENT TEAM

July 27, 2018

Facilitator's Summary

Facilitator: Emily Stranz, 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/>

Adult Sockeye Passage

Lisa Wright, Corps, reported on conditions at Little Goose Dam. Several supporting materials are posted to the agenda for today's meeting on the TMT website. The current hourly project data show outflow is 36.6 kcfs, with 10.5 kcfs of spill through spillbays 2, 4, 6, 7, and 8 (the ASW in bay 1 is closed). The target spill level today is 11 kcfs based on yesterday's average outflow below 32 kcfs, which is part of the low flow spill operation included in the Fish Operations Plan (FOP) that switches from 30% to a fixed spill of 11 kcfs when the previous day's outflow is between 28 and 32 kcfs. Per the Fish Passage Plan (FPP) criteria, the ASW will be closed on or after August 1 when inflows drop below 35 kcfs to aid adult and juvenile fish passage during low flows. The current inflow forecast for August 1 is around 30 kcfs, so the ASW will be closed on that day if inflows come in as forecasted. Forebay water temperature at 5 meters is about 70 degrees F.

The group watched video footage taken of the Little Goose tailrace, both with and without the ASW on. Chris Peery, Corps Walla Walla, provided a description of what he noticed in the videos with some context of what was seen in the models at ERDC. When the ASW is on, there is a two-stage, clockwise eddy in the downstream end of the tailrace. When the ASW is off, there does not appear to be an eddy in the tailrace and the egress current does not appear to be as strong. Erick Van Dyke, OR, recalled that, from earlier model runs at ERDC, the eddy on the south shore does not go away completely when the ASW is off, it is simply more subsurface. Erick also noted that, although he agrees with Chris' description of the eddy that appears with the ASW, it is not necessarily causing adult delay.

Paul Wagner, NOAA, reported on sockeye passage. He noted that 1 sockeye passed Little Goose on July 25; 6 passed on July 26, the first day of the operation to close the ASW, 5 of which were counted between noon and 2pm. Wagner noted that at around noon, the project switched from operating one unit to two units. As of 1:00 pm on July 27, no sockeye had passed.

Paul shared that Salmon Managers had differing perspectives as to how to move forward. Some wanted to continue the special operation in an attempt to provide better passage conditions for sockeye; others did not see any benefit to sockeye passage and were concerned that juvenile passage might be impeded with closure of the ASW. It was noted that changing operations causes fish to pause in their migration, which may be why they are not seeing any sockeye passage until noon, even though the operation had been closing the ASW at 4:00 am.

Paul suggested that the interim operation coordinated at TMT on July 25th, which closes the Little Goose ASW between 4:00 am-4:00 pm and shifts the planned spill to deep spill gates with a uniform pattern, continue to be implemented through the rest of the season until the ASW is closed due to flows below the 35 kcfs FPP criteria on or after August 1.

TMT members present were polled regarding their support for this proposal:

Corps: supports;

ID: supports;

BPA: supports;

Nez Perce: does not object;

NOAA: supports;
OR: objects, not going to elevate to RIOG at this time;
USFWS: objects, not going to elevate to RIOG

at this time;
WA: does not support, does not object, not going to elevate to RIOG at this time.

Salmon Managers who were not in favor of continuing the interim operation noted that they do not see data to support the hypothesis that the Little Goose tailrace hydraulics are causing an adult sockeye passage delay and that closing the ASW improves sockeye passage. They support keeping the ASW in operation to aid outmigration of juvenile fall Chinook. It was noted that although members who object to the operation to close the ASW do not plan to elevate to the RIOG at this time, the elevation process is cumbersome and time-consuming, and should be revisited, so that the *process* is not an impediment to action when needed.

Lisa explained that due to the polling results, the Corps will need to confer with their legal and policy representatives before deciding how to move forward. She will send an update to TMT members by the close of business today (7/27). [*Facilitator's Note: via email on July 27th, Lisa Wright shared that the Corps will continue the operation to close the Little Goose ASW and shift to the Uniform No ASW pattern in the 2018 Fish Passage Plan daily from 4 am-4 pm through Wednesday, August 1. The Corps will re-open the ASW per the spill pattern in FPP each day from 4 pm-4 am.*] TMT will check in on the operation at their regularly scheduled meeting on August 1, 2018.

- **ACTION:** The Corps will implement the following operation: Close the Little Goose adjustable spillway weir (ASW) and shift to the Uniform No ASW pattern in the 2018 Fish Passage Plan Table LGS-10 daily from 4 am-4 pm through Wednesday, August 1. The Corps will re-open the ASW per the spill pattern in FPP Table LGS-8 each day from 4 pm-4 am to provide surface passage.

Dworshak Dam Operations

John Heitstuman, Corps, reported on the Dworshak Dam unit outage. As of the TMT call, units 2 and 3 were out of service due to an unknown cause that was being investigated; the estimated time of return to service was also unknown, however, will be reported to TMT. [*Facilitator's Note: via email on July 27th, Lisa Wright reported that units 2 and 3 had returned to service and the project was ramping up to 12.9 kcfs discharge.*]

It was noted that the recent outages all happened around the same time of the day and that the hot weather and heavy load can cause equipment failure. Concerns were shared regarding the impact of the outage on downstream water temperatures and impacts to hatcheries. Dave Statler, Nez Perce, reported that the hatchery had extended their water intake for their kelt tanks, so getting water to these fish should not be as much of an issue despite low flows.

Current spill is 1 kcfs, which is resulting in TDG levels of 111.6%. Corps and BPA staff are onsite at Dworshak and will remain on standby through the weekend. The Corps will also run temperature models over the weekend and post them to the TMT meeting agenda for August 1, available on the TMT website.

- **ACTION:** The Corps will update TMT when Dworshak units 2 and 3 return to service.
- **ACTION:** The Corps will provide water temperature model runs to TMT on Monday, July 30th.

The next TMT meeting will be a face-to-face meeting on August 1 at 9:00 AM.

This summary was prepared by the impartial facilitation team of DS Consulting. Please send questions, comments or revisions to emily@dsconsult.co

Columbia River Regional Forum
TECHNICAL MANAGEMENT TEAM OFFICIAL MINUTES
July 27, 2018
Minutes: Melissa Haskin, FLUX Resources

Representatives of NOAA, USFWS, ID, OR, WA, Nez Perce, Corps, BPA, and others participated in today's unscheduled TMT meeting chaired by Lisa Wright, Corps, and facilitated by Emily Stranz, DS Consulting.

1. Little Goose Dam Operations - Lisa Wright, Corps

Lisa Wright, Corps, updated TMT on operations at Little Goose Dam. Discharge is currently 36.6 kcfs with 10.5 kcfs of spill. Currently the adjustable spillway weir (ASW) is closed and the Corps is operating to a uniform pattern through the deep spillbays (bays 2, 4, 6, 7, and 8). The forebay is 75°F at half meter deep and 70°F at 5 meters deep.

Wright shared two videos of the Little Goose tailrace. In the first, taken on July 25 with the ASW open and spill of 14 kcfs, the tailrace exhibits a two-stage eddy. The downstream tailrace forms a clockwise eddy from the ASW spill. The water coming out of powerhouse comes along the south shore, hits the top of the eddy out towards the center of the channel and joins the rest of flow coming out of the ASW, creating an S-shaped flow out of the powerhouse. There is also a mild eddy downstream.

The second video was taken on July 26 and shows the tailrace with the ASW closed and 10.5 kcfs spill in the uniform, no ASW pattern in the Fish Passage Plan, as coordinated at TMT on July 25. As a reminder, in support of adult Sockeye passage, the operation involves closing the Little Goose ASW on July 25 and 26 from 4 a.m. to 4 p.m., and switching to the FPP uniform pattern through the deep spillbays (2, 4, 6, 7, and 8). Outside of those hours, the Corps follows the FPP pattern with the ASW open. The video with the ASW closed showed flow in the tailrace moved more directly downstream and there wasn't an observable eddy. Wright discussed the inflow forecast, sharing that it is somewhat variable right now due to fluctuating discharges from Hells Canyon with a low of 30 kcfs next week. The Corps will follow FPP criteria and close the ASW for the rest of the season on or after August 1 when day average flow drops below 35 kcfs and is forecasted to stay below 35 kcfs for at least 3 days. If the current forecast holds, the ASW would be closed on August 1. The Corps will continue to monitor conditions and close the ASW when flows meet criteria.

2. Adult Sockeye Passage - Paul Wagner, NOAA

Paul Wagner, NOAA, reported on sockeye passage. Yesterday was the first day of the operation to close the Little Goose ASW for 12 hours, and a total of 6 Sockeye were counted. All fish passed after noon. Most passed between noon and 2 p.m. It is not clear if this is simply when

fish pass the project or if it is related to operational changes. Around noon, the project switched from operating one unit (Unit 1) to operating two units (Units 1 and 2).

Salmon managers had different interpretations of what the data from this 2-day operation showed. They also had different ideas on how to move forward. It is particularly difficult this year because of low adult Snake River sockeye returns and small sample sizes.

Dave Swank, USFWS, commented surface spillway weirs do benefit juvenile passage and that they are the route of highest survival. He noted he did support the operation when it was proposed at the 7/25 meeting but has since shifted views and does not support continuing the operation. “So far we have not really seen an increase in passage; 6 is still in the range of passage we saw last week. We gave it a try and it has not worked. We should go back to the FPP.”

Members of TMT were polled on whether or not to continue the operation. Per Lisa Wright, Corps, the proposed operation is to continue to close the Little Goose ASW and switch to the spill pattern for no ASW in the FPP from 4 a.m. to 4 p.m. daily through Wednesday, August 1, and reopen the ASW from 4 p.m. to 4 a.m. with the ASW spill pattern per the FPP. On Wednesday Aug, 1, if flows are below 35 kcfs and forecasted to stay below 35 kcfs for at least 3 days, the Corps will close the ASW per FPP criteria. Of the TMT representatives present, all but two parties, USFWS and OR, supported or did not object to continuing the operation. The polling results were as follows:

- Charles Morrill, WA: does not support, does not object, won't elevate to RIOG.
- Dave Statler, Nez Perce: No objections
- Paul Wagner, NOAA: Support
- Chris Sullivan, ID: Support
- Erick Van Dyke, OR: Object, but will not raise to RIOG
- Lisa Wright, Corps: Support
- Scott Bettin, BPA: Support

➔ Action: Due to objections raised by USFWS and OR, the Corps will consult policy and legal staff on next steps. Lisa Wright, Corps, will update TMT via email later today on the Corps' decision and intended action.

Erick Van Dyke, OR, expressed frustration with the process, noting that elevating to RIOG takes a great deal of effort in preparing paperwork and documentation. He said the opportunity to raise to RIOG is hindered by the expectation that it will be just a few days until the Corps switches to the FPP. He noted that this is a perpetual issue with the polling. Emily Stranz, DS Consulting, said it would be addressed in the next process meeting.

Wright clarified that the ASW has been closed prior to August 1 in previous years through coordination with FPOM due to low flows and poor hydraulic conditions in the tailrace. The FPP

criteria includes language for closing the ASW before August 1 if there are low flow or fish issues, so this operation has been done before and that there is historical context for it.

3. Other

- a. Dworshak.** John Heitstuman, Corps, reported on operations at Dworshak. Units 2 and 3 tripped off today at 14:23 and have not returned to service. At this time spill is 1 kcfs to keep TDG down (currently 111.6%). The cause for the outage is unknown but may be due to excessive heat and load. BPA staff is on site but have not yet determined the cause or a timeline for repairs. The Corps contacted both hatcheries yesterday as well as today and reported that the Nez Perce have extended the intake to be more resilient to drops in flows
- b. Next TMT.** The next TMT is a face-to-face meeting scheduled for August 1, 2018.

Today's Attendees:

TMT Members:

Corps	Lisa Wright (Chair)
BPA	Scott Bettin
Reclamation	n/a
NOAA Fisheries	Paul Wagner
US Fish & Wildlife	Dave Swank
Washington	Charles Morrill
Oregon	Erick Van Dyke
Idaho	Chris Sullivan (sub for Russ Kiefer)
Montana	n/a
Nez Perce Tribe	Dave Statler
Umatilla Tribe	n/a
Colville Tribe	n/a
Warm Springs Tribe	n/a
Kootenai Tribe	n/a
Spokane Tribe	n/a

Other Attendees:

Corps – Dan Turner, Chris Peery, John Heitstuman, Jonathan Roberts, Amanda Morelos
DS Consulting – Emily Stranz (Facilitator)
FLUX Resources – Melissa Haskin (Notetaker)