

## COLUMBIA RIVER TECHNICAL MANAGEMENT TEAM

July 14, 2021

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/2021/>.*

### **Review Meeting Minutes**

TMT Members approved the official meeting minutes and facilitator's summary for the June 23 meeting, and facilitator summaries for the June 30, July 2, and July 7 meetings. Minutes and summary from the July 9 meeting, and outstanding minutes, will be reviewed at the July 21 meeting.

### **Dworshak Operations**

Willow Walker, Corps, reported on operations at Dworshak Dam. The next couple of days will see temperatures over 100 degrees F, a slight cool down on Friday, and then the hottest temperatures on Sunday and Monday. Limited precipitation and cloud cover will mean more solar radiation, however cooler nighttime temperatures are expected to provide some relief from the heat.

Natural river temperatures at Anatone and Orofino have generally been between 71-73 degrees F, reaching as high as 75 degrees F during the hottest hours. The Lower Granite tailrace has been in the 67-degree F range. Willow reminded the group that the last 2 entries for the Orofino hourly temperatures are showing as incorrect, however, will be corrected. This issue is being worked on. The Lower Granite pool is maintaining stratification between 65/66-64.5 degrees F at the 20-meter mark. Surface water temperatures have reached 78 degrees F, although it hasn't reached above 80 degrees in the last few days.

The Corps plans to continue with flat flow out of Dworshak (about 8.5 kcfs) and depending on the heat, the Lower Granite tailrace will reach 68 degrees, or 0.5-1 degree lower. If the next heat wave starts to warm natural river temperatures too high, Dworshak will temporarily increase releases up to 9.7 kcfs (full powerhouse). The situation will be closely monitored. A light amount of smoke in the region could provide protection from solar radiation. The Corps expects to be able to keep Lower Granite tailrace temperatures at or below 68 degrees F.

Willow reviewed model results of alternative operations to operate Lower Granite and/or Dworshak to extend Dworshak's water as long as possible. These options have been suggested by TMT or FPAC members and updated with current conditions. All estimated flow augmentation end dates remain the same. Willow clarified that for 6 days of additional water, the end of August elevation would be at 1,527 feet (normal is 1,535 feet), and 8 additional days would be down to 1,524 feet.

### **System Operational Request (SOR) 2021-4**

Doug Baus, Corps, presented the Corps' implementation options for the SOR based on feedback from TMT members at last Friday's call. SOR 2021-4 details requested short-term operation modifications to address high water temperatures in the region. A summary of the SOR actions and the AA's plan for implementation is posted to the TMT website.

Each of the 6 requested actions, and planned implementation information, were reviewed in detail followed by discussion. Action 1 drew most concerns from Salmon Managers, as this was the only action that could not be implemented by AAs, due to navigation safety concerns, including risks to human safety and increased economic impacts. Some Salmon Managers felt that the adjustments and accommodations made on behalf of fish have been more severe, and requested more insight into the specific navigation modifications made based on these

conditions. Additionally, Salmon Managers noted that sediment build up and dredging in the ports has been an ongoing issue for years, and they pushed for expedited and tangible action for long-term solutions. Aaron Marshall, Corps, will take questions and comments from Salmon Managers back to the Corps navigation experts.

Action 2 on SOR 2021-4 was implemented as coordinated during the July 9 TMT meeting. The Corps plans on implementing Action 3, with coordination from the FPAC chair to the AAs and 4 days of notice to implement changes. NOAA also requested coordination before any notification to end transport; coordination will occur through the TMT (following FPAC discussion).

The Corps is confident and committed to pursuing potential implementation of Action 4, and noted a need for further coordination to explore that option. The Corps will update TMT on progress weekly. If approved by affected parties, the Corps will modify the Dworshak draft limit.

For Action 5, the Corps is committed to working with the TMT on operation specifics once they are identified. Finally, Action 6 was resolved in association with information provided at the July 8 FPOM meeting.

TMT Members were polled on the Corps’ response to SOR 2021-4:

<b>TMT Member</b>	<b>Polling Response</b>	<b>Rationale (optional)</b>
NOAA	No Objection	NOAA cannot support the AA’s decision regarding Action 1 and strongly encouraged the Corps to consider options for dredging in a timely fashion. NOAA supports Actions 2-6 and NOAA continues to support a triage operation and suite of actions to address temperature issues. [Regarding SOR 2021-4: NOAA did not sign on as they needed more specifics and additional evaluation and analyses to fully support.]
OR	Abstain	OR cannot support the AA’s decision not to implement Action 1, as it has a quantifiable benefit for fish and is very important given the current situation. OR is deeply concerned that an action with clear possibility for addressing temperature is not on the table. OR appreciated TMT members efforts to consider the suite of actions and did not want to stand in the way of actions being implemented to support fish during these lethal conditions.
WA	Abstain	WA appreciated the efforts made by all to address a suite of elements, and committed to working with all partners to further address all of the elements. [Regarding SOR 2021-4, WA expressed their support.]
Kootenai Tribes	<i>Absent</i>	
Colville Tribes	Abstain	Colville noted the minimum pool operation proposal is important to maximize the impact of actions aimed at addressing water temperature in the Snake River. The Colville stressed the importance of in-basin actions to address water temperatures. [Regarding SOR 2021-4, Colville expressed their support.]
Umatilla Tribes	Object	Umatilla objected to the AA’s planned response to the SOR. [Regarding SOR 2021-4, Umatilla expressed their support.]
Reclamation	No Objection	No additional comments.
Corps	Support	The Corps noted that after hearing from TMT members last week regarding SOR 2021-4 they coordinated internally and with the region to clarify aspects of the SOR that could be implemented given the various missions and regulations.

USFWS	Abstain	Due to ongoing litigation, any SOR support needs full legal review so USFWS must abstain, as time did not allow for that review. [Regarding SOR 2021-4, USFWS thought the group should have polled on the SOR last week regardless of timing on response from AAs.]
ID	Abstain	ID noted that the AA’s response to the SOR lacks specifics on some actions, and they abstain from polling until there is a specific detailed operation.
MT	No Objection	MT agreed that actions need to be taken, and that the solutions require signification actions to balance the impacts to fish. MT noted that there are tools today that are good at empirically determining where sediments will go, and it’s possible to enhance solutions and reduce costs for dredging by introducing new technology. MT didn’t object to the AA’s response to the SOR because they were impressed by the level of cooperation by all.
Spokane Tribe	<i>Absent</i>	
Nez Perce Tribe	Object with Elevation	Nez Perce stressed that the need to take actions that are beneficial and sufficient to allow fish to survive is critical, this is the goal of the Tribe, while working collaboratively with all parties. A number of actions have been recommended, none are perfect, but every action is needed. The Nez Perce object to the AA’s response to Action 1 and will elevate the issue to RIOG. They appreciated discussions and collaborations put into all of the actions and hope actions 2-6 will continue to be worked out and be implemented to benefit fish.
Warm Springs Tribes	Abstain	Warm Springs abstained due to the AA’s response to Action 1, and noted that the dredging issues are ongoing and have not been dealt with for years. [Regarding the SOR 2021-4, CTWS expressed support.]
BPA	Support	No additional comments.

The Corps plans to implement the SOR as outlined in the summary provided at today’s meeting, based on no objection to Actions 2-6. On behalf of the Nez Perce Tribe, Jay Hesse will elevate their objection to the Corps’ decision not to implement Action 1 of the SOR to RIOG.

**System Operational Request (SOR) 2021-5**

Jonathan Ebel, ID, presented SOR 2021-5 (posted on the TMT website). The SOR requests a temporary change to water temperature criteria to conserve water in the Dworshak reservoir during a period of lower fish passage in the Snake River, in order to extend temperature mitigation water later into August. Specifically, the SOR would increase water temperature criterion for the Lower Granite tailrace from 68 degrees F to 69.5 degrees F beginning no earlier than July 23 and no later than July 29, and ending on August 17. Start and end dates would be determined by FPAC and coordinated through TMT.

NOAA noted that specific dates for the operation are to be determined and coordination with ID will need to occur for additional fish transport. Coordination with the AAs must be provided at least 4 days in advance to prepare; this notification will occur via an FPAC chair email notification to the AAs. NOAA will follow-up communications from the FPAC chair to acknowledge the change in BiOp tailrace temperature criteria.

TMT Members were polled on SOR 2021-5:

TMT Member	Polling Response	Rationale (optional)
BPA	Support	No additional comments.
Warm Springs Tribes	Support	No additional comments.

Nez Perce Tribe	Support	Nez Perce noted that they view this as one of the actions in the full suite of actions that need to be taken to achieve adequate fish protection.
Spokane Tribe	<i>Absent</i>	
MT	No Objection	No additional comments.
ID	Support	ID will watch the situation closely. While there is some disagreement on dates, ID noted that they are looking towards the earlier part of this suggested date range, given the trap and transport schedule. ID looks forward to further discussions.
USFWS	Abstain	No additional comments.
Corps	Support	No additional comments.
Reclamation	Support	No additional comments.
Umatilla Tribes	Support	No additional comments.
Colville Tribes	No Objection	No additional comments.
Kootenai Tribes	<i>Absent</i>	
WA	Support	WA echoed Nez Perce and ID comments.
OR	Abstain	OR did not sign onto the SOR, given this is part of the suite of options in the last SOR. OR supports actions to reduce temperatures and conserve water and also feel that this SOR action goes against what fish need biologically in terms of temperature for survival throughout the lifecycle. Biological benefits that are well documented for impacting passage for salmon and steelhead cannot be disregarded. OR did support colleagues' efforts to find alternatives to conserve water and address temperature.
NOAA	Support	NOAA appreciated the close coordination and communication and looks forward to further coordination with ID. They noted the tradeoff in species and priorities and recognize that all species are having to “give” for this to make cold water releases last. This is a tough balancing act.

The Corps plans on implementing the SOR once start dates are coordinated.

**Fishway Differentials**

David Swank, USFWS, reported on fishway temperature differentials at Little Goose Dam. He noted changes could be due to the removal of the surface weir or changes in the ambient air temperature. There was a noticeable spike in exit pool temperature at 0600 hours. Scott St. John, Corps, clarified that a line outage for T2 work caused the increase of surface temperatures at 0600 hours. He also clarified that the adult ladder cooling pump was off during the full line outage; switching in the morning and again in the afternoon between 1-2 hours on each end, and it was operating during the day.

**Spill Priority List (SPL)**

Alexis Mills, Corps, reported on the current SPL. NOAA formally requested to shift Lower Granite and Little Goose Dams lower on the list, below Grand Coulee.

Kirk Truscott, Colville, noted that shifting Lower Granite and Little Goose will place Chief Joseph higher on the list, potentially increasing spill and impacting the important tribal fishing season in the tailwater at Chief Joseph Dam. Colville was sympathetic to the impacts of high Snake River temperatures that affect the entire basin. They did not advocate for the shift and noted that the revised SPL order should not be construed as precedent-setting, however, they would not oppose the temporary change. The Colville would like to see the SPL return to normal order by the end of the season.

The following level 1 and level 2 SPLs were determined:

- Level 1 (starting below Bonneville): Chief Joseph, Grand Coulee, Little Goose, Lower Granite, Dworshak.
- Level 2 (starting below Bonneville): Chief Joseph, Grand Coulee, Little Goose, Lower Granite.

Some Salmon Managers voiced concern in having bulk spill at Lower Monumental Dam, noting uniform spill is preferred. Alexis noted there would be no change in FOP spill if bulk spill at Lower Monumental was removed and so the group agreed to remove the bulk spill at Lower Monumental from the SPL.

### Operations Review

*Reservoirs:* Joel Fenolio, BOR, reported on Bureau of Reclamation projects:

- **Hungry Horse:** the project is drafting, with current elevation at 3,559 feet, and is targeting 3,550 feet by the end of September. Outflows have been about 2,500 cfs, and the project is dropping to 2,200 cfs.
- **Grand Coulee:** elevation reached 1,289.6 feet on Monday (peak refill elevation per incremental storage adjustment), and the project is targeting 1,277 feet for the end of August.

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

- **Libby:** midnight elevation was 2,453.4 feet, with average inflows of 11.3 kcfs, and outflows of 9 kcfs;
- **Albeni Falls:** midnight elevation was 2,062.2 feet, with average inflows of 12.3 kcfs, and outflows of 11.4 kcfs;
- **Dworshak:** midnight elevation was 1,577.2 feet, with average inflows of 1.2 kcfs, and outflows of 8.8 kcfs;
- **Lower Granite:** average outflows of 25.9 kcfs;
- **McNary:** average outflows of 167.2 kcfs; and,
- **Bonneville:** average outflows of 166.4 kcfs.

*Water Quality:* Alexis reported that currently all gauges are operational and below the summer TDG water quality standards. There had been issues with how the Chief Joseph forebay gauge was being transmitted; the data are still coming in and will be updated shortly.

*Fish:* Claire McGrath, NOAA, reported that sockeye counts in lower Columbia continue to decline, while they are increasing and reaching peak counts in the Upper Columbia and Snake Rivers. Lower Columbia sockeye YTD passage is 50% of the 10-year average; Snake River sockeye YTD passage is 105% (LGS) and 95% (LWG) of the 10-year average, respectively.

Sockeye continue to arrive to Lower Granite in poor physical condition, with some injuries that were previously thought to be lamprey bites, however, may actually be bacterial infection. NOAA has requested a pathologist to examine the wounds to confirm, and updates will be provided once more is learned. Tom Lorz, Umatilla/CRITFC, noted that CRITFC biologists reviewed the photos and did not think that they were lamprey bites. Jonathan reported that 40 more sockeye have been transported to Eagle Hatchery, with successful day-time trapping. These fish are also exhibiting poor health conditions. After running bacterial cultures and sampling wounds, initial assessments conclude externally caused injuries secondarily affected, such as opportunistic bacteria. Once the fish are in cooler water, they do not show the lethargy present in other infections. It was noted that similar lesions have also been observed in upper Columbia River sockeye.

A memo from FPC is posted to the TMT website that looks at YTD conversion rates for Snake River sockeye. Analysis shows that conversion rates between projects are similar to the 10-year average and higher than in 2015; travel time between projects is slightly faster than the 10-year average and faster than 2015. Water temperatures remain high, and Claire noted that the goal remains to do whatever possible to improve conditions.

*Power System:* Tony Norris, BPA, reported temperatures have moderated on the west side load centers, and there is some wind on the system day to day. BPA is monitoring for issues related to fire activity, and any precautionary measures that may be taken.

**Questions or 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 21, 2021 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](mailto:colby@dsconsult.co).*

## **Columbia River Regional Forum**

### **Technical Management Team**

### **OFFICIAL MINUTES**

**Wednesday, July 14, 2021**

**Minutes: Melissa Haskin, BPA (contractor, FLUX Resources)**

Today's TMT meeting was held via conference call and webinar, chaired by Doug Baus, Corps, and facilitated by Emily Stranz, DS Consulting. See end of these minutes for a list of attendees.

#### **1. Meeting Minutes and Summaries**

The official minutes and summary from the June 23 TMT meeting, as well as the summaries for June 30, July 2, and July 6, were approved with no additional edits.

#### **2. Dworshak Dam Update**

Willow Walker (Corps Walla Walla) reported on operations at Dworshak Dam. The 10-day weather forecast shows ambient air temperatures in the Dworshak Dam region over 100°Fahrenheit. Temperatures may cool slightly Friday before rising again Sunday and Monday. The forecast shows little to no cloud cover and no precipitation. Walker noted that at night temperatures will stay below 75°F, which should provide some relief. In the last heat wave, this was not the case.

At Anatone and Orofino, the water temperature has been around 71-73°F, rising to as high as 75°F during the hottest part of the day. The Lower Granite tailwater has been hovering around 67°F. As a reminder, there has been an ongoing error in the temperature string for Orofino. Four weeks ago, an emergency repair was made to the gage. Since then, there has been a lag in data. It runs two hours behind and auto-populates to be 105°F, at times. This should be ignored. As time passes, the correct data fill in. The data are still coming in correctly to the Corps but populating wrong on the public page for the most recent two hours. A team is working to fix it.

The pool at Lower Granite is maintaining stratification and will likely continue to do so. Right now, surface water temperatures have peaked at about 78°F. At the 20-meter mark, water temperatures are closer to 64.5-66°F. In prior heat waves this season, the surface water temperature has climbed to 80°F, commented Walker.

Moving into the 10-day models for Dworshak Dam operations, Willow presented two graphs. The first shows what would happen if the Corps continues to keep flow out of Dworshak Dam at 8.5 kcfs. Models predict that the Lower Granite tailwater will hit 67-68°F, not rising above 68°F. The 1°F of variability is due to environmental conditions including air temperature, river temperatures, and smoke cover, which may protect the region from solar radiation. The second model showed what would happen if the Corps increased Dworshak outflows to near full powerhouse capacity. This would be the option the Corps would implement if the heat wave materializes. It also shows the Lower Granite tailrace staying below 68°F.

Walker also took TMT through 6 Lower Granite Temperature Alternatives, available on the TMT website. The models were presented last week and were re-run yesterday. They show little-to-no change. Jay Hesse, Nez Perce, wondered what the end of August elevation would be if 6-8

days of additional water was needed out of Dworshak Dam. Walker shared that the normal end of August elevation is 1,535 ft. Using 6 days of water would result in an end of August elevation of 1,527 ft. and 8 days would put the project at 1,524 ft.

### **3. System Operational Request (SOR) 2021-4**

#### ***3a. Discussion of SOR and the Corps responses***

Baus reported on System Operational Request (SOR) 2021-4 and the Corps' current actions and responses to the 6 requests in the SOR. He provided a write up, available on the TMT website.

**Regarding SOR 2021-4, request #1** (*Restoring minimum operation pool elevations at Lower Granite, Little Goose, Lower Monumental, and Ice Harbor through August 31, 2021*), the Corps is unable to implement this request at this time due to navigation safety. The Corps will continue to monitor temperatures in the region and report back to TMT should this change.

Julie Ammann and Aaron Marshall, Corps, responded to a request at a prior TMT meeting for information on how the navigators and ports are compromising and adapting to conditions. At this time, there are additional time and cost implications at the ports of Clarkston and Lewiston. Barges in the grain terminal at Lewiston are only loading to about half of their capacity and then moving upriver to finish loading. Lowering MOP would increase the economic impact to the region and also pose a risk to human safety. These lower elevations raise the risk of cables snapping due to increased pressure, which can cause severe injury or death. The most recent cable snap due to low river conditions occurred in 2020. During that event, there were no injuries. Additionally, changing MOP puts barges at increased risk of ship grounding, which has impacts to other ship traffic. At this time, Lower Monumental and Lower Granite are operating to the minimum depth required to still allow for navigation lock entrance. The Corps is operating at the lowest level it can operate to and the risks are too high and impacts too great to implement this piece of the SOR that changes MOP, noted Ammann. It is imperative that the Corps maintain human health and safety, she added.

Jay Hesse, Nez Perce, added that he did not hear in the Corps' response that the other affected parties were working in less than ideal conditions in order to make the system functional for fish. In the past he has asked about moving the navigation channel, he noted, and wondered if that is being considered. Charles Morrill, WA, later asked the same question. Marshall noted that moving up river is a difficult process that is not ideal. The Corps is pushing for a long-term solution with the Port of Clarkston, he added.

Tom Lorz, Umatilla Tribe/CRITFC, wondered if navigation safety trumps fish safety. He asked what bounds the Corps has given the port, for instance if they have provided the port with specific depths that are lower than they are currently and told the port to load accordingly. Ammann responded that the Corps is bound by a 14-foot federal navigation channel that it is responsible for maintaining at all times. At this point, the Corps is struggling to meet that minimum and not able to meet it everywhere in the channel. To add to the issue, there is sediment in the channel and dredging is the responsibility of the Port. Dredging is currently being pursued by the Port. The environmental documents are being drawn up and the Corps is working within its budget cycle to address the issue. Ammann has no additional update on dredging at this time. Navigational questions, such as barge loading and the status of dredging,

will be taken offline and addressed in the future, per Stranz. Van Dyke was not satisfied with this, noting it has been a long-term issue. Stranz noted that the navigation folks that would be needed to answer these questions are not at today's meeting.

Van Dyke ended the conversation by calling for the region and the community to work together to brainstorm solutions. He said actions need to be taken, adding that fish are bearing the weight from the region's lack of action. "Everyone needs to try to do what they can," he said.

**Regarding SOR 2021-4, request #2**, (*short-term prioritization of traditional spillbays that return to 2021 FOP summer spill volumes and close spillway weirs at Little Goose, Lower Monumental and Ice Harbor dams*), the request is being implemented as coordinated at the last TMT meeting.

**SOR 2021-4, request #3** (*short-term emergency transport via truck and related Lower Granite tailwater conditions of 68°F*), was coordinated and implemented during the July 2 TMT meeting. Juvenile transportation continued at Lower Granite and Little Goose dams.

To make changes to transportation and spill, the Corps will need a point of contact for this request. For the purposes of today's meeting, Baus named OR for coordination. During today's discussion, the point of contact was changed to TMT as a whole at the request of NOAA. The document also stated that the Corps would need 7 calendar days advance notification prior to requesting operational changes for planning purposes. Baus explained the time period as a placeholder. Scott Bettin, BPA, noted that BPA would only need 4 days' notice to change operations. Baus believes 4 days would be sufficient for the Corps. No Corps members voiced concern for this shortened timeframe. The document will be updated to reflect this. Claire McGrath, NOAA, requested that FPAC and TMT coordinate on transportation should the event occur where the Corps is able to operate the Lower Granite tailwater at the TMT coordinated temperature criteria while keeping Dworshak Dam above 1,535 feet by August 31. NOAA is interested in watching the entire migratory corridor for juveniles during transport, not just Lower Granite tailrace. In sum, the document attached to today's agenda will be changed to show:

1. 4 days advance notice will be needed for operational changes at Lower Granite.
2. Any changes will be coordinated through TMT

**Regarding SOR 2021-4, request #4** (*changes to flow augmentation from Dworshak Dam*), the Corps is committed to investigating if this request is implementable and will provide weekly updates to TMT. At this time, the Corps is unable to commit to the request, as it requires additional coordination. Furthermore, the outcomes of this operation are not certain. The SOR will be polled on later in today's meeting, as a whole, and TMT members and agencies should provide their polling response based on the response from the Corps that they are not sure they can implement it but are committed to pursuing an answer.

**Regarding SOR 2021-4, request #5**, (*coordinate potential alternatives to stretch-out cool water augmentation that do not require modifications to water quality standards*), the Corps is committed to working with the TMT once specifics have been identified. Again, during polling, members should poll on the Corps commitment to pursue this issue.

**Regarding SOR 2021-4, request #6, (seek efficiencies for Lower Granite Doble schedule),** this issue was resolved at the July 8 FPOM meeting.

**3b. Questions prior to polling**

Hesse asked if the Corps believed these actions are sufficient to extend Dworshak Dam water through the end of August. Baus responded with an enthusiastic *yes*.

**3c. TMT Poll on SOR #2021-4**

Emily Stranz, DS Consulting, polled TMT members on SOR #2021-4 in its entirety. Polling responses and their meaning are defined in the official TMT Guidelines, available on the TMT website. As a reminder, members may vote “Support,” “No Objection,” “Object without elevation”, “Object and elevate”, or “Abstain”:

Army Corps of Engineers	Doug Baus	Support
Bonneville Power Administration	Tony Norris	Support
Bureau of Reclamation	Joel Fenolio	No objection ( <i>revised from Abstain</i> )
NOAA Fisheries	Claire McGrath	No objection
US Fish & Wildlife Service	Dave Swank	Abstain
Washington	Charles Morrill	Abstain
Oregon	Erick Van Dyke	Abstain
Idaho	Jonathan Ebel	Abstain
Montana	Brian Marotz	No Objection
Nez Perce Tribe	Jay Hesse	<b>Object and Elevate</b>
Umatilla Tribe	Tom Lorz	Object ( <i>revised from Abstain</i> )
Colville Tribe	Kirk Truscott	Abstain
Warm Springs Tribe	Jen Graham	Abstain
Kootenai Tribe	Absent	Absent
Spokane Tribe	Absent	Absent

**3d. Official comments and clarifications on polling responses for the record:**

**NOAA:** McGrath responded specifically to Action #1, saying that she strongly encourages the Corps to take swift action with regards to dredging. She added that shoaling and depth issues are not a surprise this year. NOAA did not sign on to the original SOR because it lacked details the agency needed. Other than its issues with Action #1, NOAA has no objections to the other actions in the SOR.

**OR:** Van Dyke stated that there is a lot of work that needs to be done to avoid the current lethal situation and that each of the actions in the SOR need to be revisited. He expressed concern that Action #1 is not being implemented, since he believes it could possibly improve temperatures.

**WA:** Morrill expressed understanding that not all elements of the SOR can be implemented at this time. He considers the SOR a dynamic document that is not completed but that should be revisited in the future. WA is committed to exploring all options.

**Colville:** Truscott noted that the Colville would have supported the original SOR but are choosing to abstain from the current SOR. He believes it is important to maximize actions to address water temperatures, especially MOP-related actions.

**Umatilla Tribe:** Lorz originally abstained but during discussion changed his vote to “object.” He will not elevate since another TMT member has already voted to elevate the issue. He clarified that he supported the original SOR but objects to the Corps’ responses to the SOR presented at today’s meeting.

**Corps:** On Friday, the Corps sought clarification on the SOR and responded to the requests today. The Corps intended for today’s vote to be centered around what it could implement based on the requests given. The Corps can be limited by regulations and rules, and that is why it revised the original SOR sent in by the salmon managers and re-submitted it as a supplemental document to TMT for voting today.

**US Fish & Wildlife Service:** Swank, like others, felt there was a process issue: that the original SOR should have been voted on, not the amended SOR provided today. This process issue will be taken offline and resolved at a future process meeting. Due to ongoing litigation, USFWS will need to complete a full technical and legal review before polling on this SOR. Since there has not been time for that, USFWS has to abstain from voting at this time.

**ID:** Ebel noted that this SOR lacks specifics, which he understands means that the Corps’ response is that it needs to continue coordination. Because of this, ID abstains until more details are available.

**MT:** Marotz does not want to “kick the can down the road.” He said immediate action of heroic measure is needed to protect fish. There are tools that are good at determining where sediment will go, he added, as well as tools for determining reservoir elevations. He believes it is possible to reduce the cost of dredging and to enhance the solutions presented today with the help of these tools. He thinks this is possible by bringing everyone up to speed with the technology that is available. He did not object to changes in the SOR because he was impressed by the team’s cooperation.

**Nez Perce Tribe:** Hesse commented that his agency has signed on to all SORs that address temperature issues. While they are not perfect, they are a start for addressing dire conditions, he noted. The Nez Perce Tribe is choosing to object and elevate because of the Corps’ response to Action #1. Supporting fish survival is critical, he said, and the aim of the Tribe is to do everything it can to make that happen. He said he hopes Actions #2-6 will continue to be implemented while the SOR is raised to RIOG over Action #1.

**Warm Springs Tribe:** Graham would have supported the original SOR but will abstain from polling on the modified SOR, particularly because of the Corps’ response to Action #1. Graham noted that this issue of dredging has been brought up several times and seems to not have been raised to the level that it needs to be to get the attention it needs. Graham also voiced concern and confusion over the polling process, particularly that the original SOR was not polled on.

### ***3e. Next Steps***

Based on the above poll responses from TMT members today, the Corps will implement Actions #2-6 of the SOR as written. The Corps will move forward as the document describes. Hesse will reach out to the RIOG chair to pursue elevation of Action #1.

#### 4. System Operational Request (SOR) 2021-5

##### 4a. Description of SOR

Ebel presented SOR 2021-5, available on the TMT website. The objective of this SOR is to conserve Dworshak Dam cooling water during a period of low passage of Snake River sockeye, fall Chinook, and summer steelhead. In essence, signatories (ID, Nez Perce Tribe, WA, CRITFC/Umatilla, NOAA, and the Warm Springs Tribe) would like to conserve water for later use in August when fall Chinook and steelhead are passing in larger numbers. Dworshak Dam water is critical for these species during late August, said Ebel. The SOR asks that the Action Agencies “increase water temperature criterion for the Lower Granite Tailrace from 68°F to 69.5°F beginning no earlier than July 23rd and no later than July 29th and ending on August 17th....” FPAC will recommend a start date that is yet to be determined.

The current sockeye trap-and-haul operation is expected to end on July 23, though that may be extended based on passage. ID voiced support for starting the operation sooner rather than later due to how the trapping operation is aligned.

##### 4b. Questions and comments prior to polling:

McGrath commented that NOAA is in support of a strategy to conserve water at Dworshak Dam. NOAA was not in full support of the original SOR because of the potential negative impact to sockeye passing later than July 23. Passage varies year-to-year, she mentioned. NOAA is in support of this revised SOR. This revised SOR could help collect more of the late passing sockeye. More coordination between NOAA and ID is necessary, mentioned McGrath. NOAA will work within the 4-day notice mentioned earlier in this meeting as the timeframe needed for operational changes at this time.

Baus asked for clarification on how coordination will occur and from whom. He emphasized 4 days would be needed and asked that be added to the document. Ebel said he believed he can provide notice of requested operational changes via email from FPAC to the Action Agencies with 4 days’ notice. He will confirm that and circle back with an answer. This was solved after the polling portion of today’s meeting.

Army Corps of Engineers	Doug Baus	Support
Bonneville Power Administration	Tony Norris	Support
Bureau of Reclamation	Joel Fenolio	Support
NOAA Fisheries	Claire McGrath	Support
US Fish & Wildlife Service	Dave Swank	Abstain
Washington	Charles Morrill	Support
Oregon	Erick Van Dyke	Abstain
Idaho	Jonathan Ebel	Support
Montana	Brian Marotz	No objection
Nez Perce Tribe	Jay Hesse	Support
Umatilla Tribe	Tom Lorz	Support
Colville Tribe	Kirk Truscott	No objection
Warm Springs Tribe	Jen Graham	Support
Kootenai Tribe	Absent	Absent
Spokane Tribe	Absent	Absent

***4d. Official comments and clarifications on polling responses for the record:***

**Nez Perce Tribe:** Hesse considers this to be one of many actions that need to be taken to achieve adequate outcomes.

**ID:** Ebel said ID will continue to monitor the situation closely. He noted that while this year's passage has been compared to that of 2015, that trapping started late and fish were slow in that year. He believes the situation in 2015 was different than it is this year. ID looks forward to further discussions.

**USFWS:** Since USFWS is in litigation, Swank is unclear with process that needs to occur for USFWS to provide comments on this SOR and cannot provide a date for when USFWS will provide a polling response.

**Corps:** It is essential that the Corps understands the decision-making process for an operational change. Given this, Baus asked who to expect an email from. Ebel clarified that the Corps will get an email from Charles Morrill, WA (the FPAC chair). Due to the BiOp, NOAA will also directly coordinate with the Action Agencies.

**WA:** Morrill says he echoes the comments of ID and the Nez Perce Tribe.

**OR:** OR is not a signatory on this SOR. Van Dyke noted this is part of the suite of options in SOR 2021-4 and that it is an option that provides an opportunity to meet objectives of what TMT is trying to do. Van Dyke said that OR does not want to stand in the way of actions, which is why OR chose to abstain from voting. He could not support the SOR because it does not recognize what fish need in terms of temperatures and how the changes in temperature affect their behavior and survival over their life cycle. He supports his fish co-managers efforts to find alternatives to reduce temperatures and conserve water. He commented again that fish are facing a lethal situation. He said he is unsure of what is *worse* and what is *less bad* given current conditions and options.

**NOAA:** McGrath added that changing the tailrace conditions for broodstock collection comes at the expense of other species. Different agencies have different priorities and are coming at the issue from a different perspective, she said, adding that everyone seems to be giving and sacrificing to make the Dworshak releases last and provide the most benefit they can. NOAA is trying to cautiously manage Snake River sockeye and balance the needs of all parties.

***4e. Next Steps***

Based on the above poll responses from TMT members, the Corps will implement the SOR as written. The Corps anticipates an email notification from Morrill on when to start the operation.

**5. Fishway Differentials - David Swank, USFWS**

Swank reported on fishway temperature differentials at Little Goose Dam. There was a question last week at TMT about if the changes in the differential of late have been due to ambient air temperatures or closure of the surface weir. Additionally, there was a spike yesterday at about 0600. Scott St. John, Corps, shared that the adult ladder cooling pump was off in the morning and afternoon for 1-2 hours during a full line outage. However, it is operating during the day. He will provide the MOC and more details at FPOM.

## **6. Spill Priority List - Alexis Mills, Corps**

Alexis Mills, Corps, reported on the Spill Priority List, which was last coordinated on June 16. With an increased potential for lack-of-market spill, there has been a request to shift Lower Granite and Little Goose lower on the list. Mills asked fish managers what specific change they would like.

There was some confusion among salmon managers because the list presented at today's meeting was different than the list provided to FPAC for discussion last week. The one provided to FPAC did not include Lower Monumental bulk. This has been what has been coordinated for the projects and is the most accurate, up-to-date list for today's conversation. The spill operation discussed today is per the FOP, available on the TMT website. The bulk pattern was already coordinated with salmon managers via email through FPOM earlier this season. In season switches from bulk to uniform and then back to bulk (which were made due to TDG concerns) were coordinated via FPOM email.

At today's meeting, fish managers expressed different opinions regarding the order of the projects on the list. OR's preference would be to remove bulk spill at Lower Monumental from the list. However, NOAA has concerns with pulling bulk spill. Since McGrath is not NOAA's FPOM representative, she asked for additional time to consult with her team. A long discussion about uniform versus bulk spill ensued and no consensus was met. Any change would be coordinated via email from FPOM. This discussion will be tabled until next week's TMT meeting. When asked how urgent this matter is, Scott Bettin, BPA, noted that it is hard to tell when fires may start for the season and affect operations but, for now, it looks like there is time.

Kirk Truscott of the Colville Tribe voiced confusion over the operations, since SOR 2021-4 and 2021-5 seem to offset one another. Baus explained that the Corps is trying to make best efforts to stretch water as far as possible, if Dworshak Dam has to be drafted below 1,535 ft. This operation would allow for conservation of Dworshak Dam cooling water during a shorter duration temperature increase, which would lead to a later temperature benefit, he explained. Truscott noted that this change could impact the Colville hatchery. Ebel explained that the goal of raising the temperature criteria is to conserve Dworshak Dam water. Regardless of the water temperature criteria, not spilling would result in minimum use of Dworshak Dam water. Increasing spill requires more Dworshak Dam water to meet the higher temperature criteria. Truscott would like to revisit this list once the season is over; noting Chief Joseph Dam's location on the list is a long-term issue that needs to be addressed. He also added that any temporary changes to the Spill Priority List coordinated at today's meeting should be limited to use in the 2021 spill season and not precedent setting or permanent.

Following further discussion, two changes were made to the Spill Priority List:

- Level 1 will remain the same for projects 1-6 and afterwards will be changed to 7) Chief Joseph, 8) Grand Coulee 9) Little Goose, 10) Lower Granite and 11) Dworshak.
- Level 2 will remain unchanged until after Bonneville, where the list will be 18) Chief Joseph, 19) Grand Coulee, 20) Little Goose, and 21) Lower Granite.

## 7. Operations Review

### 7a. Reservoirs – *Joel Fenolio, Reclamation; Lisa Wright, Corps*

**Reclamation projects: Hungry Horse** – Drafting. Midnight elevation 3,559 ft. elevation and targeting 3,550 ft. by the end of September. Releases ~2,500, reducing to ~2,200 cfs. **Grand Coulee** – Hit its peak elevation of 1,289.6 ft. on Monday. The end-of-August targeting for the project is 1,277 ft. Tony Norris, BPA, noted that if Grand Coulee is reached on the spill priority list during lack-of-load spill, the water would be released, however, there is a fair amount of storage at the project within the operating range. The flexibility might mean the water is released the following day or during other hours. **Corps projects: Libby Dam** – Midnight elevation 2,453.4 ft., yesterday's average inflows 11.3 kcfs and outflows 9 kcfs. **Albeni Falls** – Midnight elevation 2,062.2 ft., inflows 12.3 kcfs and outflows 11.4 kcfs. **Dworshak Dam** – Midnight elevation 1,577.2 ft., yesterday's average inflows 1.2 kcfs and outflows 8.8 kcfs. **Lower Granite** – Yesterday's average outflows 25.9 kcfs. **McNary Dam** – Yesterday's average outflows 167.2 kcfs. **Bonneville Dam** – Yesterday's average outflows 166.4 kcfs.

### 7b. Water Quality – *Alexis Mills*

Mills reported that all gages are currently operational and TDG is below the summer water quality standards. There were some issues with the Chief Joseph Dam forebay gage. That data are still coming in. Tony Norris, BPA, noted that higher TDG levels in the Chief Joseph Dam forebay are the result of incoming TDG (about 114%) into Lake Roosevelt from Canada.

### 7c. Fish – *Claire McGrath, NOAA*

**Juveniles:** No report.

**Adults:** Sockeye in the Lower Columbia River are on the decline. In the Upper Columbia and Snake rivers, they are increasing and appear to be near their peak. In the Lower Columbia, sockeye are showing at 50% of the 10-year average. In the Snake, they are showing at 95%-105% of the 10-year average. Sockeye are not yet arriving at Lower Granite. There has been a high incidence of lesions, which could be lamprey bites, bacterial infections, or a mix of both. NOAA has sent samples to a pathologist for review and will update TMT when it learns more. Lorz shared that CRITFC biologists reviewed the photos and do not believe the damage to be from lamprey bites.

Ebel shared that 40 additional sockeye have been transported to Eagle Hatchery. They seem to also be showing signs of poor health. So far, ID's analyses has shown the wounds to be caused by injuries. A secondary explanation of these wounds is bacterial infections. Truscott shared that the Colville have also noticed similar lesions.

McGrath also noted that FPC released a memo on YTD conversion rates for Snake River sockeye. In short, the memo shows that conversion rates are similar to the 10-year average and substantially higher than 2015. Additionally, travel time between projects is substantial quicker than 2015 and slightly faster than the 10-year average.

### 8d. Power – *Tony Norris, BPA*

Norris noted that temperatures are moderate on the west-side. There is some wind on the system. BPA is keeping an eye out for fire and smoke-related power issues.

**9. Other**

Stranz noted that the TMT Guidelines are up for review and revision from TMT members and agencies. The original deadline was today but she will extend it to next week’s process meeting. She noted that this would be a good opportunity for members to address any issues they have with the SOR process at TMT.

**Today’s Attendees:**

<b>Agency</b>	<b>TMT Representative</b>
Army Corps of Engineers	Doug Baus (Chair), 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	Brian Marotz
Nez Perce Tribe	Jay Hesse
Umatilla Tribe/CRITFC	Tom Lorz
Colville Tribe	Kirk Truscott
Warm Springs Tribe	Absent
Kootenai Tribe	Absent
Spokane Tribe	Absent

**Other Attendees (non-TMT members):**

Corps – Alexis Mills, Willow Walker, Scott St. John  
 DS Consulting – Emily Stranz (Facilitator), Colby Mills  
 Portland General Electric – Ruth Burris