

## COLUMBIA RIVER TECHNICAL MANAGEMENT TEAM

FRIDAY, June 2, 2023

Facilitator's Summary

Facilitation Team: Emily Stranz & 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; it is not intended to be the "record" of the meeting. Official minutes can be found on the TMT website: <http://pweb.crohms.org/tmt/agendas/2023/>. Suggested edits for the summary are welcome and can be sent to Colby at [colby@dsconsult.co](mailto:colby@dsconsult.co).*

**System Operational Request (SOR): 2023-2** – Jonathan Ebel, IDFG, presented SOR 2023-2 (posted to the TMT website). The SOR relates to spill operations following GBT criteria exceedance below Ice Harbor Dam on May 30. It requests that, during the period that spill is reduced at lower Snake River projects due to non-salmonid GBT criterion exceedance, the Corps:

1. Implements spill to the 125% tailrace gas cap for 24 hours/day at Lower Granite Dam; and
2. Implements spill to the 120% tailrace gas cap for 24 hours/day at Little Goose, Lower Monumental, and Ice Harbor dams.

The goal of this SOR is to maximize surface passage opportunity for currently migrating smolts in the Snake River while acknowledging requirements of WDOE's water quality standard.

On May 31, spill was reduced at Little Goose, Lower Monumental, and Ice Harbor dams due to the observed non-salmonid GBT exceedance below Ice Harbor on May 30, the second exceedance below Ice Harbor within the last month. Similar to the first exceedance, the GBT exceedance was overwhelmingly in sculpin inhabiting shallow water; GBT in a single pikeminnow was also documented. According to a Fish Passage Center Memo, they estimated that the first exceedance and resulting spill reduction operations affected an estimated 23% of juvenile spring/summer Chinook, 28% of summer steelhead, and 88% of Snake River sockeye. Peak passage for these fish has passed, however, this second exceedance coincides with peak passage of threatened Snake River fall Chinook. Based on PIT-tags and passage index at Lower Granite, the current spill reduction could affect upwards of 22% of these juvenile migrants. Salmon Manager signatories on the SOR believe that the response to the GBT exceedance can be better for salmonid migrants than outlined in the Action Agencies' (AAs') biological monitoring plan (as approved by WDOE), while still meeting the regulations. Regulations only specify the reduced TDG limit and do not require AAs to implement performance standard spill, and WDOE has allowed AAs to maintain the 125% TDG limit at Lower Granite.

Jay Hesse, Nez Perce Tribe, reminded the group that the TMT process is to respond to in-season conditions and make adaptive management adjustments as agreed to by the various represented perspectives. He noted operational benefits to the various pillars outside of what Jonathan mentioned regarding fish; he described that the operation should have no impact to navigation (functionality), would reduce wear on infrastructure, and would not impact increases in power generation during non-performance standard hours (16-hr blocks). According to Jay's calculations, the SOR operation would reduce power generation during the performance standard hours by about 3,500 megawatt hours. Overall, the operation would remain a net benefit to power.

### *Questions and Comments from TMT Members*

Dan Turner, Corps, clarified that part 2 of the SOR is to implement WDOE's 115% forebay criteria in addition to the tailrace criteria; and spill to 115%/120% tailrace gas cap. Jonathan noted that the intent was to include 115%/120%, recognizing that it is challenging to meet 115% at times; the spill cap estimates in the SOR are based on spill caps provided by the Corps. He clarified that the main change is to pull out performance standard spill periods at the projects.

Jonathan thought that the most significant difference between what’s being implemented now and what the SOR is requesting comes from the 24 hour/day gas cap spill at Lower Granite. Trevor Conder, NOAA, noted the importance of the nuances (the SOR as written did not specify 115% in the forebay) and the significance from a policy and operational perspective. As written, the SOR would conflict with state water quality standards and could result in a higher percentage of spill during gas cap spill hours if there is a 120% spill cap versus a 115%/120% during the 16-hour period, which could have a differential effect on adult passage.

Chris Peery, Corps, noted that there is not just juvenile migration to consider; eliminating performance standard spill at any level can be problematic for adult passage at Little Goose, as well as Lower Granite and Lower Monumental. Chris noted that adult Chinook salmon could be delayed during their peak passage at Lower Granite. Jay noted that adult passage is one of the aspects that Nez Perce Tribe considers carefully; their recommendation would be to continue to monitor adult passage on a regular basis and revert back to the regular operations if indications of delay were observed.

*Action Agencies took a brief caucus to discuss internally the implications of the SOR prior to polling considering the clarification to the request in #2.*

TMT Members were polled on the SOR **as written and as clarified by Ebel to include the 115% forebay standard in #2**. Some provided additional rationale for their responses:

TMT Member	Polling Response	Rationale (optional)
NOAA	Object	NOAA continues to want the best passage for fish (both downstream juvenile passage and upstream adult passage). NOAA has remained firm since the beginning of the Stay Agreement that performance standard blocks at some projects are important when spilling to gas cap levels to have effective and timely adult passage. NOAA believes the information (DART and FPC tools, hourly passage) supports that the performance spill hours are important for adult migration at Lower Granite, Lower Monumental, and Little Goose dams; they are not willing to remove those and take the hit to adults that would likely occur, they are tasked with protecting the species.
Oregon	Support	Oregon supports the SOR because it benefits fish passage in the Snake River. The SOR was meant to balance the risk better than current operations.
Washington	Support	Washington agreed that the SOR is a balanced action to provide protection for listed Snake River Chinook. The data available do not consistently show that there is better adult passage past Lower Granite; while there are some delays, the science available doesn’t show a significant impact. High flows do slow passage. WA strongly supports the evidence to support this SOR.
Corps	Object	The Corps believes the benefits of performance standard spill (as included in the Stay Agreement) are an essential part of operations to facilitate adult passage. Regarding adaptive management, the Corps works within the boundaries of current litigation and agreements. Formally changing spill operations may be better suited for long-term conversations about future operations.
Idaho	Support	Idaho was disappointed in the Federal Agencies’ decision; a closer look at the data and focus on adult passage could be misguided and isn’t supported by the data, at least at Lower Granite. The SOR was designed to provide the best passage conditions under the unfortunate scenario of GBT criteria exceedance. The reasons for not changing operations have differed between

		the 2 recent exceedances, the Federal rationale seems to have shifted and doesn't seem to align with the data available. The SOR provides the best balancing act.
Nez Perce Tribe	Support	Nez Perce Tribe highlighted the challenge in finding the balance points with the different impacts the hydro-system has on fish; the complexity is finding the point of acceptable impact. The Tribe appreciates the perspectives of individuals prioritizing different life stages. The SOR represents the Tribe's interpretation and assessment of how to make a bad situation the best possible for fish. The recommendations were put into 2 parts, they wondered if the parts can be considered separately?
BPA	Object	The AAs are still operating Lower Granite per the FOP, as it was unaffected by the adjustment required due to GBT incidence. They are implementing per the state WQS and monitoring plan, and there is no new information that would have them deviate from what was agreed to in the Stay Agreement. Performance standard blocks are effective at minimizing adult delay. Regarding the power pillar analysis provided by Hesse, BPA did not feel that it was relevant per the Stay Agreement and was not sure what assumptions were used by the Nez Perce Tribe to assess impacts. BPA maintains that the performance blocks are important to the spill operations for adult fish passage.
<i>The Confederated Tribes of the Colville Reservation, Kootenai Tribe of Idaho, Montana, Reclamation, Spokane Tribe of Indians, Confederated Tribes of the Umatilla Indian Reservation, USFWS, and the Confederated Tribes of Warm Springs were not present to register a polling response.</i>		

AAs clarified that after careful consideration, neither of the recommendations in the SOR will be implemented, as they believe that performance standard spill operations are an important component of passage and the Stay Agreement. The Corps had significant reservations in changing operations that could significantly increase TDG upstream at Lower Granite that would transfer to downstream projects. Charles Morrill, WDFW, noted his disappointed that the Stay Agreement takes precedence over the SOR request for adaptive management to improve passage conditions for juveniles.

*Action Agency Decision*

The Corps will not implement the SOR and will continue reduced gas cap spill at Little Goose, Lower Monumental and Ice Harbor dams, and performance standard block operations at Little Goose and Lower Monumental, in response to the GBT exceedance. This will continue until there is a clean GBT sample and projects are able to revert back to the FOP operations. These operations were distributed to the TMT in a detailed email on May 31.

Idaho did not elevate the issue to RIOG due to the time it would take to do so. They emphasized the need for this to be a longer-term discussion. Idaho objected to the AAs continuing on with operations under this reduced spill period as they have been doing. They noted that the Federal rationale provided is contrary to the purpose of what TMT is here to do.

**Questions and Comments from Members of the Public** – Tom Iverson, Yakama Nation, asked if AAs have explored revisiting the monitoring plan to expand sampling geographically below each of the reaches? Dan noted that the Corps has been in conversation with WDOE in regards to revisions to the monitoring plan. Paula Calvert, BPA responded that BPA has not yet explored expanding sampling at Snake River projects, internally or with WDOE. This will be discussed in meetings leading up to next year's monitoring plan.

The next regularly scheduled TMT meeting is on June 7, 2023, at 9:00 AM.

**Columbia River Regional Forum  
Technical Management Team  
OFFICIAL MINUTES  
Friday, June 2, 2023**

**Minutes: Andrea Ausmus, BPA (contractor, CorSource Technology Group)**

Today’s TMT meeting was held via conference call and webinar, chaired by Doug Baus, Corps, and facilitated by Emily Stranz, DS Consulting. A list of today’s attendees is available at the end of these minutes.

An unscheduled TMT Meeting was held on Friday June 2, 2023 @ 8am to coordinate System Operational Request (SOR) 2023-02, “Spill operations following GBT criteria exceedance on 30 May 2023”, dated June 01, 2023.

**1. System Operational Request (SOR), Jonathan Ebel, ID; Jay Hesse, NPT, and Doug Baus, Corps**

Jonathan Ebel, ID, explained that the SOR was presented to the Action Agencies as a request to implement two operations for the remaining time that Little Goose, Lower Monumental, and Ice Harbor dams are restricted to the 115% forebay and 120% tailrace limit under the State of Washington water quality standard following the non-salmonid GBT exceedance below Ice Harbor on May 30.

Two operations requested are:

- (1) Implement spill to the 125% tailrace gas cap for 24 hours per day at Lower Granite Dam.
- (2) Spill to the 120% tailrace gas cap for 24 hours per day at Little Goose, Lower Monumental, and Ice Harbor dams.

Spill was reduced at Little Goose, Lower Monumental, and Ice Harbor on the afternoon of May 31, 2023, due to an exceedance of Washington’s *Non-Salmonid Gas Bubble Trauma Instance Criteria*.

This is the second exceedance in 2023 below Ice Harbor Dam in the last month – like the first exceedance the GBT observations were overwhelmingly in sculpin inhabiting shallow water. Unlike the first exceedance, a single pikeminnow was also documented in the samples.

In May, the first reduction happened during peak passage of endangered Snake River Spring/Summer Chinook, Steelhead and Sockeye.

Impacted an estimated:

- 23% – Spring/Summer Chinook
- 28% – Summer Steelhead
- 88% – Snake River Sockeye

This second period of reduced spill coincides with peak passage of threatened Snake River Fall Chinook juvenile. Based on PIT-Tags and Passage Index the current spill reduction may impact upwards of 22% of Fall Chinook migration (information not included in SOR).

They believe that the response to the GBT Exceedance can be better for juvenile salmonid migrants than outlined in the Action Agencies' *Biological Monitoring Plan* approved by the Washington Department of Ecology (Ecology) while still meeting the regulations.

This is because:

- The regulations only specify the reduced TDG limit and do not require the Action Agencies implement Performance Standard Spill (PSS).
- Ecology has allowed the Action Agencies to maintain the 125% TDG limit at Lower Granite Dam.

Their Main Goal is to maximize surface passage under this reduced spill scenario while still adhering to the water quality regulations.

Table 1 in the SOR provides an index of powerhouse encounters under three operations; FOP operation, SOR operation (Requested Operation), and GBT reduced spill (Current Operation). The requested operation is close to the powerhouse encounters expected for juvenile migrants under the Fish Operations Plan.

SUMMARY: The requested operation should meet the water quality requirements following an exceedance. It permits surface passage at an average level similar to the FOP and better than the current Action Agency operations. This is also a continuance of the conversation of how TMT responds to the exceedances when the USGS sampling plan is observing GBT in non-salmonids.

Jay Hesse, Nez Perce Tribe, shared that the TMT process is to respond to in-season conditions and to adjust accordingly from the various perspectives that are represented within the team. That adaptive management process is laid out in the CRSO EIS, in the Adaptive Management Chapter, in Appendix R addresses that in the terms of the three pillars, Hesse said that it adds an additional fourth pillar. Hesse said that he wanted to share some of his thoughts of the pillars with TMT.

Hesse said that Ebel did a good job explaining their assessment of the fish pillar and the recommendation that tries to maintain some neutrality with the existing water quality standard expectations.

Hesse said for the other pillars that specifically talk to functionality, including both Navigation and Infrastructure. He said there would be no impact on navigation and there would be a small benefit on infrastructure with the reduction of daily wear and tear of changing the spillbays when switching from high spill to PSS.

The third pillar, Power, the existing operation, because of the water quality standards increases power generation and it increases during nonperformance standard hours, the 16-hour blocks, by about 10k MWh, or about 600 MW instantaneously.

The SOR would not impact the portion of increased power generation during the nonperformance hours, but it would reduce the power generation during the PSS by about 3500 MWh. That would be a net increase of about ~7000 MWh remaining.

Overall, this operation remains a net benefit to power. It does drop a little, but he wanted to make sure those were on the table.

Hesse summarized that, in terms of the pillars:

- Net neutral for Navigation and Infrastructure.
- Improves for the Fish Pillar.
- Degrades for the Power Pillar but remains positive.

a. Clarifying Questions

Daniel Turner, Corps, wanted to clarify because he had read something differently in the original SOR. The recommendation in Part 2 is to implement Ecology's 120% tailrace criteria but doesn't include the 115% forebay criteria. Turner wanted to clarify whether **Specifications** (2) was a typo, and it should read "115%/120% TDG".

Ebel said yes, that they could put whatever the state standards are in there. He clarified saying that while writing the SOR his intent was to cover the Corps' challenges to reach the spill caps. He included the spill caps within the table the spill caps provided by the Corps for the operation, which he said were probably 115%/120% TDG. His intent was to leave it open because he thought it was challenging for the Corps to meet the 115%. That is something that is between the Corps and the Water Quality Agencies. His estimates are based on the spill caps that the Corps provided.

Doug Baus, Corps, said that is a significant noteworthy clarification. He asked for a confirmation, that in the SOR as written, **Specifications** (2), it currently reads "The USACE spill to the 120% tailrace gas cap for 24 hours per day at Little Goose, Lower Monumental, and Ice Harbor Dams." Baus asked if Ebel intended it to be written as "The USACE spill to the 115%/120% tailrace gas cap for 24 hours per day at Little Goose, Lower Monumental, and Ice Harbor Dams."

Ebel said that he is not sure about how different the spill caps are between a 120% tailrace and a 115%/120% but he conceded that what ever the Corps needs to achieve the goal. Ebel said that he is not sure what the Corps needs to meet for the standard for the state of the Washington, so he should have put in the 115%/120%, but it also acknowledges that the Corps have challenges meeting the 115% TDG.

Baus said that spill operations and state standards are significant and noteworthy in how they are described. At the highest level if the Corps is having conversations about critical changes in operations it is essential and critical that the Corps clearly understands the expectations. Baus said that he would be happy to dive into the delta between 120% tailrace v. 115%/120%, and they can do that. First spill operations are significant, and they are real and accordingly we need to be clear on what is being requested.

Ebel apologized that he did not 'dot his I'.

Baus said that he wants to make sure that if there is another unscheduled TMT meeting to talk about SORs that talk about specific operations TMT needs to be on the same page regarding what the request is.

Stranz asked if the main change requested in the SOR is to pull out of the PSS periods at Little Goose, Lower Monumental, and Ice Harbor and everything else stays the same.

Ebel said yes, but there is some nuance to the PSS because at these flows, PSS spill rates are starting to align closely with the gas cap. There are two operations:

- spill at the 125% gas cap 24-hours per day at Lower Granite (this was allowed at the previous TMT meetings and discussions between the Corps and Ecology) and
- spill 24-hours per day at the reduced TDG limit as permitted by Ecology under this situation at the other three projects.

Charles Morrill, WA, said thank you to Ebel and Hesse for putting the SOR together. He recognized the error on the 115%/120% TDG, the clarification was valuable and important. He shared that Washington fully supports this SOR and appreciates the discussion that TMT has had so far to clarify.

Trevor Conder, NOAA, said that the Corps selects, based on the best information, the spill cap for the day based on what is expected to hit those 115%/120% TDG. The spill cap with a 115%/120% TDG is sometimes substantially lower than a spill cap with a 120% TDG, so it can make a significant difference.

Ebel said that he does not personally know how much spill that difference would be but his preference is whatever the Water Quality standard is on that. He thinks that where the real difference that the flows come in terms of the average powerhouse encounters that would be experienced by a population-level through the Lower Snake, the biggest difference comes from between what is being done now by the Action Agencies and what the SOR is requesting come from the 24-hour per day gas spill at Lower Granite. Probably not the small differences that are being focused on right now.

Conder said that he hears Ebel when he says biggest difference and he agrees, but it does matter when we are saying – under these flows this would not change the PSS operation at all (or very much) because we are at 100 k and 30% is 30 k and the spill cap is 30 k. Conder said that this changes when looking at 120%/115% TDG or 120% tailrace. They do make a difference then.

Ebel says that they are arguing semantics. He said to look at the numbers in Table 1 and to then look at the spill caps for May 31, 2023, that the Corps put out. He said that the numbers for the reduced spill cap aligned with what the Corps released for the spill cap, which he assumed align with the water quality regulations 115%/120% TDG.

Turner said that the spill caps in the SOR are the spill caps to meet 115%/120% TDG criteria in the GBT reduced spill operation.

Stranz asked Conder why he is calling out there is a difference and sometimes there is more of a significant difference. She asked why that is important to him and what is the perspective from NOAA.

Conder said because it would result in a higher percentage of spill during the performance spill hours.

For example:

Little Goose: 120% TDG tailrace spill cap selected during gas cap spill *versus* a 120%/115% TDG.

It will make a difference on the percentage of spill during those hours and could potentially put you over the threshold.

It is an important consideration to make sure TMT keeps straight. Conder added that this was in the email that he sent to Ebel initially and so it should not come as a surprise that it is an issue.

Ebel said that he will have to go look at that vague comment again and go from there. He said that it seemed like members were focusing on what he considers a small detail relative to the numbers that they had crunched.

Conder said that it is not a small detail.

Conder said that the percent of spill to total river volume could potentially be higher if the ask was 120% TDG tailrace *versus* 120%/115% TDG. A higher spill ratio could have a differential effect on adult passage. For this given SOR, it is not a game changer, but it was something that NOAA had to run through their policy channels in terms of the requests to ask the Corps to modify the State water quality standards. That was a hard no. Now it is 120%/115% TDG – they had just done a bunch of work to go through their policy channels on the request to operate in a way that conflicts with state standards because it was not clear. Conder said that Ebel is acting like it is not a big deal, but it is a big deal.

Stranz clarified that it was a misunderstanding in not including the 115% TDG in there. Conder had to do extra work through policy, and it was a hard no without the 115% TDG. She told Conder thank you for doing the additional work and apologized that was potentially unnecessary. She asked, given that the 115% TDG is included in the request, if it would be helpful to have a brief caucus so that the Action Agencies could talk a little bit more about what the implications of the SOR before polling.

Chris Peery, Corps, shared more information about adult passage in response to Conder's concerns. He said that he has seen dramatic and straightforward issues with adult passage once they go over 30% spill at Little Goose. Eliminating the Performance Standard Spill at any flow level is problematic. He said that they also see similar things at Lower Granite and Lower Monumental. Peery shared the graphs for Lower Granite and Lower Monumental. The first graph set is for Lower Granite spill over the last month. The orange/green are the hourly fish counts. The top graph blue is the spill in kcf and the bottom blue is % spill.





Peery pointed out that especially in the later part of the month, once they are out of the performance standard spill, they are seeing delays in adult passage. Right now, they are in the peak Chinook salmon at Lower Granite dam. It was three weeks delayed from the average, so it is already at a delay in migration, and by eliminating performance standard spills it will only delay the fish further.

There is a similar pattern at Lower Monumental. The performance standard spills are more broken up than at Lower Granite. It shows clearly that counts peak during the performance standard spills and they drop dramatically when out of performance standard spills. Peery wanted to point out that it is not just juvenile migration that needs to be considered.

Ebel said that he would not argue that it would not slow adults, he said that he would argue that it would not be catastrophic. Little Goose is very clearly the strongest, 30 – 33% spill, he said that he could argue that may not be because when turbine units were out fish were slowed and flows were high at Little Goose, but fish were still passing. Ebel said that he was surprised. He pointed out that during the periods that Peery shared in the graphs, it was during the reduced spill, the last time the spill was reduced to the 115%/120% TDG gas cap due to an exceedance. He said that the lack of performance spill because at that flow the gas cap and the performance spill were nearly aligned. He said that they did not show Ice Harbor. He said that the perceived decline of adult passage at Lower Granite show from the counts are probably the high flows and the impact of passage delays at Ice Harbor during that period that translated all the way through the Snake. He said that he is sensitive to the concern of adult passage, they need to pass the dams to get to Idaho’s fisheries and tributaries, but he does not find it as dire as it is portrayed, or it could be interpreted by an unnuanced understanding of the figures the Corps has shown.

Hesse said that adult passage is one of the aspects that the Nez Perce tribe thinks about and takes very seriously, and it is a point of discussion that they had when considering this operation. He said that Ebel started to get into the details of interpretation of the graphics, which Hesse said are key. He said that he would push back on some of Peery’s statements, as well, he does not feel that is necessary here. His intent is that TMT monitors adult passage and if there are indications of delay and there are tools in place to do that, DART and Fish Passage Center’s tools, and if there are any indications of delay they can revert to the other operations. Little Goose is right at 30 – 35% under these given flows and that is not significant. It does not go over the huge threshold which is different than in the past. Hesse echoed Ebel saying that they did not see the delays earlier this year which was different than in the past. This is a real issue that is monitorable in real-time, and TMT can react to those. Hesse wanted to highlight that Nez Perce went through this thought process and believe that these operations will not delay fish. If for some reason they do, TMT has to the tools to determine that, and we can adjust accordingly.

Peery said does not disagree with Ebel that the run was delayed and that we are in challenging conditions with the high flows and spill levels. Peery said that what he is speaking to is the actual hour to hour daily passage as well. He wanted to share that he agreed with Ebel.

- TMT members took 20 minutes to caucus with relevant parties about the new and important information provided.

#### Polling on SOR 2023-2

Polling Options: *Support / Object / Not Objection / Abstain*

**NOAA:**            **Object**

**OR:**                **Support**

**WA:**                **Support**

**Corps:**           **Object**  
**ID:**               **Support**  
**Nez Perce:**       **Support**  
**BPA:**             **Object**

NOAA – Conder shared that NOAA continues to want the best passage for fish, and that includes both the downstream juvenile passage and the upstream adult passage. From the beginning of the negotiations with the Stay Agreement they have remained firm that at some projects, not all projects, they feel the PSS blocks are important when spilling to high levels, i.e., high gas cap levels. NOAA feels that those performance spill hours are important to have effective and timely adult passage. They continue to believe that based on the DART tools, FPC tools, and the hourly passage data that Peery provided. NOAA thinks that support of those performance spill hours is still important at Lower Granite, Lower Monumental, and Little Goose Dams so they are not willing to remove those and take the hit that would likely incur. Some feel that the hit is small, and some feel it is larger, there is some debate about that, Conder understands. He also understands that there is also a debate on the juvenile side. NOAA is tasked with protecting the species, and so that is where they are going to stand with this one, maintaining the performance hours at Lower Granite, Little Goose, and Lower Monumental.

OR – Erick Van Dyke said that Oregon supports the SOR because it benefits the fish passage in the Snake River. He said he would contrast Conder in that the SOR was meant to balance the risk better.

WA – Morrill said that this is a balanced action to provide protection for the listed Fall Chinook. The data that TMT has does not consistently show that they have 95% or better passage of adult Spring/Summer Chinook pass Lower Granite. Morrill accepted that there is a delay, but he said that the science does not show a significant impact. He does acknowledge that high flows do slow passage down but Washington strongly supports the evidence that they have seen and looked at to support this SOR.

Corps – Baus said that from the Corps perspective and the reason for the objection, is as already noted, there was some conversation today regarding the benefits of PSS that the Corps believe, as included in the Stay Agreement, is an essential part of operations. Baus added that as far as the Stay Agreement goes, there were some comments made regarding the adaptive management. He said that they work in litigation, and they take that seriously. Baus said that they feel that some of the bigger picture issues that may be captured in this SOR may be better tabled for those longer-term conversations associated with future spill operations. The Corps recognizes that some of the flow conditions that were discussed in this may have some similarities but formally changing spill operations via this SOR would be better suited for longer-term conversations. The Corps does appreciate the importance of PSS to facilitate adult passage.

ID – Ebel said that he is disappointed with the federal agencies in this. He said that a closer look at the data and the focus on adult passage in this context is misguided. He said that he thinks that it is not supported by the data, at least at Lower Granite. Ebel said that they designed the SOR to provide the best passage conditions that they could think of under this

unfortunate scenario of the GBT criteria exceedance. The reasons for not changing have changed from the first exceedance to the second. The first was to continue to adhere to the biological monitoring plan, that was approved by Ecology. Ebel said that he is not hearing that from the Corps now, the federal family has shifted their rationale. He said that if TMT is going to look at data on adult passage and the importance of performance spill, he would like to point out May 20 – May 25, 2023, where performance spill did not occur during high flows and that did not slow adult passage at Lower Granite. This was while flows were extremely high and performance spill was eliminated due to those high flows. Ebel said that he does not think that the rationale provided by the federal entities is lining up with the data that TMT is looking at. Ebel said that he polled support for this SOR and think that is the best way to go. It is the best balancing act.

Nez Perce – Hesse said that it is difficult to find the balance points with all the different impacts that the hydro system has on fish, whether those are ESA-listed or non-salmonids. Whether those are juveniles or adults. Hesse continued saying that the complexity of all of those is there is no sweet spot in finding acceptable impact for each one of those relative to the other. He said that he appreciates the perspectives of individuals here at TMT that prioritize different life stages differently than him. They are fuzzy decisions and not hard points, but they are not great conditions for any life stage. He acknowledges the fuzziness in that and how people would end up in different places. Hesse said that the SOR represents the Nez Perce’s interpretation and assessment of how to make the bad situations the best possible for fish. He understands and hears that others have a different opinion on that. He thinks he understands the process moving forward and he would like to highlight that the specifications were put in two parts, and he would be interested in hearing whether part (1) could move forward independently of part (2).

BPA – Tony Norris said they are still operating Lower Granite to the FOP as it was unaffected by the adjustment required due to the GBT incidence rate. They are still implementing per the State Water Quality Standard and the Water Quality Monitoring Plan. The performance standard blocks are still effective at minimizing adult delay. There is no new information that would have BPA deviate from what was agreed to in the Stay Agreement and how they are implementing per the Water Quality Standard and the Monitoring Plan. Norris said that regarding Hesse’s power analysis, Norris was not sure how he came to those numbers. Norris felt that Hesse may not have been using an appropriate set of assumptions. He said that this seems irrelevant as power is not part of the conversation per the stay agreement and BPA maintains that these performance standard blocks are an important feature of the Spill Operations to avoid adult delay.

Stranz circled back to Hesse’s question of if there is a possibility of independently implementing **Specifications Part (1) Implement spill to the 125% TDG limit at Lower Granite Dam for 24-hours per day**. She asked if the Corps or the Action Agencies had conversations about just implementing one of the specifications.

Baus said that they did talk about it. He said as it has been alluded to by Conder, there were some significant policy conversations that they had regarding the request. They did investigate implementing them separately. Baus said that as he said in the polling, the Corps does object to the SOR in its totality, in addition to breaking it down they also object to the first provision. He said that he thought in the response he made best efforts to acknowledge the why. The why was based on the Stay Agreement and the importance that the Corps believes are associated with those PSS operations for adult passage. The Corps still believe that is an important component of the Stay Agreement. In addition, Baus said that there have

been conversations in recent TMT meetings about when significantly increasing TDG upstream it cascades downstream causing concerns for exceedances of Ecology’s Water Quality Standard. More spill at Lower Granite could cause reductions of spill caps downstream.

Morrill put into the chat response “I am disappointed that the stay agreement takes precedence over SOR request for adaptive management to improve passage conditions for juveniles”

- Action Agencies will **NOT** implement the SOR as written.  
They will continue the operations they were doing today.  
For information refer to the email, Wed 5/31/2023 10:37 AM from Dan Turner

Excerpt from email:

Before our next update on operations review scheduled for the 6/7 TMT Meeting (<https://pweb.crohms.org/tmt/agendas/2023/>) the Corps would like to provide you with an update on current operations. As noted below, yesterday’s (5/30) native non-salmonid gas bubble trauma (GBT) level exceeded the Washington Department of Ecology (WDOE) GBT criteria (15% GBT) below Ice Harbor Dam. To meet but not exceed Ecology’s water quality standards, the Corps will implement 115% forebay /120% tailrace TDG spill caps starting at 1600 today. Per our past communication, performance standard spill will continue at Little Goose (30%) and Lower Monumental (40%). Please note that the past spill cap of 43 kcfs at Lower Monumental with a forecast total flow of 105 kcfs would produce spill rate of 41% - so the gas cap operation and performance standard spill should look similar. A return to the 125% TDG gas cap is dependent on USGS sampling of GBT downstream of Ice Harbor next Tuesday.

Ebel asked if there would be a chance to poll about the response. He will not elevate because an elevation to RIOG would take long enough that once again the point would be moot. This needs to be a longer-term discussion. He said that Idaho objects to the Action Agencies continuing with operations under this reduced spill period as they have been doing. He thinks that that a lot of the rationale that had been provided by the federal entities on the phone today, the biological rationale, does not pass the data smell test. He said the Action Agencies are going to do what they wrote down, which is contrary to the purpose of what we are here to do in TMT.

Morrill agrees.

## 2. Public Comments:

Tom Iverson, Yakama Nation, asked if the Corps and Ecology have been exploring revisiting the monitoring plan to expand sampling geographically below each of the projects. He also asked if they are reconsidering the response actions that are dictated by a GBT exceedance.

Stranz said that BPA was exploring sampling methodology.

Turner said that the Corps has been having conversations with Ecology regarding revisions to the monitoring plan. They have brought up several issues on how clarify.

Paula Calvert, BPA, said they have not had that conversation that yet in greater detail internally. They have not discussed it with Washington Ecology. It is something they will be discussing with their meetings that they will hold in the lead up to next year’s spill. Currently they are working within the allowance of what Ecology has allowed in their spill implementation plan.

**3. Set agenda for next meeting – June 7, 2023**

Today’s Attendees:

<b>Agency</b>	<b>TMT Representative(s)</b>
Army Corps of Engineers	Doug Baus (chair), Julie Ammann, Lisa Wright
Bonneville Power Administration	Tony Norris
Bureau of Reclamation	
NOAA Fisheries	Trevor Conder, Kelsey Swieca
US Fish & Wildlife Service	
Washington	Charles Morrill
Oregon	Erick Van Dyke
Idaho	Jonathan Ebel
Montana	
Nez Perce Tribe	Jay Hesse
Umatilla Tribe	
Colville Tribe	
Warm Springs Tribe	
Kootenai Tribe	
Spokane Tribe	

Other Attendees (non-TMT members):

Corps – Dan Turner, Aaron Marshall, Chris Peery

BPA – Leah Sullivan, Paula Calvert

DS Consulting – Emily Stranz (Facilitator), Colby Mills

BPA – Andrea Ausmus (note taker, Contractor with CorSource Technology Group)

Yakama Nation Fisheries – Tom Iverson

Columbia Basin Bulletin – Mike O’Bryant

Oregon DEQ – David Gruen

Chelan PUD – Jay Fintz