

COLUMBIA RIVER TECHNICAL MANAGEMENT TEAM

April 29, 2026

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: <https://public.crohms.org/tmt/agendas/2026/>. Suggested edits for the summary are welcome and can be sent to Colby at colby@dsconsult.co.

Review Meeting Summaries & Minutes

TMT Members approved the official meeting minutes and facilitator summaries from April 8, and April 22. Minutes and summary from April 15 will be reviewed at the next TMT meeting.

FPAC Request for Treaty Flow Augmentation

Tom Lorz, Confederated Tribes of the Umatilla Indian Reservation/FPAC Chair, had nothing new to report on FPAC's request for Treaty flow augmentation, this will be reviewed at the next TMT meeting.

Smolt Passage Update

Tom Lorz, introduced a [Memo](#) from the Fish Passage Center (FPC) in response to Reclamation's request for further context on passage timing graphs; the Memo describes tools used to estimate timing for wild yearling Chinook and steelhead at McNary (MCN) and Lower Granite (LWG) Dams, and to assess passage during current smolt migration seasons compared to the 5-year average. Salmon Managers consider [cumulative PIT-tag detections](#) over each of the 5 last years compared to 2026, and the FPC [Daily Passage Index Graph](#) for smolt, among life history and run timing for specific stocks to inform recommendations.

Brandon Chockley, FPC, reviewed the updated plots showing cumulative PIT-tag detections, noting that the black line is the 5-year average (most recent five years); the plots now also display the individual years that comprise that 5-year average. At LWG, wild Chinook and wild steelhead appear earlier in 2026 than the 5-year average and earlier than most of the last five years. At MCN, wild Chinook 2026 timing appears earlier than almost all the last five years (except possibly 2024); wild steelhead are earlier than the five-year average and earlier than all five years. Brandon noted that the data are dynamic, and PIT-tag detections are added to the database on a rolling basis; he cautioned not to assume the run is slowing down until there are sufficient data, which will not be until later in the year.

To help interpret the data and limitations, Brandon clarified that total cumulative detections vary year-to-year due to differences in tagging effort, population size, overwinter survival, survival to the first project (LWG), and dam operations affecting detection probability (proportion of flow through the juvenile bypass vs. powerhouse or spillway). Of note, 2022 had much higher detections partly due to higher flows and greater bypass-system detection probability. Brandon emphasized that the magnitude of cumulative-detection curves should not be directly compared across years without some post-season "normalization." In-season use of the data is to evaluate trajectory, as rising cumulative detections indicate active passage while leveling suggests passage is slowing/ending.

Brandon also reviewed FPC's Daily Passage Index plots, which combine static historic average daily passage proportions (shown as black/gray lines) and current year daily passage index (shown as red bars), and are updated daily with new data. He noted that the plots use all fish (including hatchery releases) so hatchery release timing can strongly influence the index. When interpreting the plots, if the red bars are increasing and follow the historic curve shape, the run is in progress. Declining red bars over consistent

days are indicative of passage decline. Brandon added that this tool is helpful in assessing whether fish are actively migrating at a given project.

During the discussion among TMT Members, Oregon, Idaho, and Washington emphasized that the intended use of these tools/graphs is to demonstrate presence and timing of fish to support in-season and real-time flow-augmentation requests (e.g., the 4/15 SOR and subsequent 4/22 flow request). The purpose of the charts was to document fish presence and earlier timing to justify augmentation. They reiterated that prior detection patterns and other modeling indicate that higher flows increase water velocity, shorten fish travel time, and improve survival.

Salmon Managers offered to follow-up with Action Agencies (AAs) for further details on data/graph interpretation at any time moving forward to avoid missed opportunities to support migration and reduce discussion time spent on data interpretation. Additionally, TMT Members can reach out to Brandon/FPC for deeper clarification. AAs appreciated the conversation and explanation of these analysis tools.

Upper Snake Flow Augmentation Projections

Chris Runyan, Bureau of Reclamation, provided an update on 2026 upper Snake River flow augmentation, noting the significantly below average water year (WY) so far, specifically on the Boise, Payette, and upper Snake above Milner Dam. April 1 Water Supply Forecasts (WSF) show the Boise at 51% of average, Payette at 58%, and High C at 70%; warm temperatures in March led to a big drop.

Reclamation expects to meet their lower-bound target of 427 kaf this year, primarily due to carryover storage from last year, as well as possibly utilizing powerhead space in the Boise and upper Snake. Final estimates are based on rentals out of the Boise and Payette. Current approximate estimates are 92 kaf from the upper Snake above Milner, 77.6 kaf from natural flows, 180.6 kaf from the Payette, and 76.8 kaf from the Boise (427 kaf total). Final timing and rentals are expected by June 1; the Boise has started to release, and Milner is expected to start soon. Chris will keep TMT informed as the augmentation numbers are finalized, likely later in May or early June.

TMT Discussion and Q&A

- Erick Van Dyke, Oregon, asked what releases were in 2025?
 - 476,872 acre-feet, between the low (427 kaf) and high (487 kaf) targets.
- Jonathan Ebel, Idaho, asked if Reclamation has a consumptive-use projection for Water District 1 to estimate how powerhead/pool use affects carryover at Palisades?
 - Reclamation's Upper Snake office will connect with Water District 1 and provide a range; Chris will follow up.
- Jonathan emphasized Idaho's concern about sediment mobilization/turbidity and bank stability if powerhead is drawn down to very low active storage percentages, he asked how long it takes to refill powerhead space after use?
 - Using powerhead space is feasible but reduces cushion for future years; refill typically requires a large water year with active flood-control operations; Chris will obtain numbers and follow up.
- Using powerhead space has operational and ecological tradeoffs (refill difficulty and sediment/turbidity/bank stability risks at Palisades).
- Dave Swank, USFWS, asked how lower and upper augmentation bounds are set?
 - The 427-487 kaf range is in the Biological Assessment (BA); Reclamation always tries to hit 487, using carryover, rentals, and powerhead space, if possible.
 - The CSS chapter on flow augmentation, BA, and BiOp provide background context on Upper Snake flow augmentation.

TMT – April 29, 2029

Set Agenda for Next TMT Meeting

The group requested the following agenda items for May 6, TMT Members may send additional items to Doug Baus or Emily Stranz. A draft agenda will be posted to the TMT website by Monday COB.

1. Potential treaty flow augmentation request
2. Information on observed flow fluctuations at Little Goose (LGS) and The Dalles (TDA)
3. Non-Court Ordered Operations Review

In May, after the official water supply forecast, an update on the Kootenai River White Sturgeon Flow Pulse Release will be provided, with another update following the FPIP meeting to share the release plan.

Questions or Comments from Non-TMT Members

There were no questions or comments from non-TMT Members.

The next scheduled TMT meeting will be on May 6 at 9AM PDT.

**Columbia River Regional Forum
Technical Management Team
OFFICIAL MINUTES
Wednesday, April 29, 2026**

Today's TMT meeting was held via Microsoft Teams and conference call, chaired by Doug Baus, Corps, and facilitated by Emily Stranz, DS Consulting. Minutes were collected by Andrea Ausmus, BPA (contractor, CorSource Technology Group). A list of today's attendees is available at the end of these minutes.

1. Review Summary and Minutes – Emily Stranz, DS Consulting

- a) April 8 Summary and Minutes
 - Approved
- b) April 15 Summary and Minutes
 - April 15 Minutes edits were received but had not been included.
 - April 15 Minutes review will be held next TMT meeting.
- c) April 22 Summary and Minutes
 - Approved

2. FPAC Request for Treaty Flow Augmentation – Tom Lorz, CRITFC-Umatilla/FPAC Chair; Tony Norris, BPA

- No FPAC request for this week.
- They will review for next week and determine if a request was coming.
- Keep on agenda for next week.

3. Smolt Passage Update – Tom Lorz, CRITFC-Umatilla/FPAC Chair

- a) [Cumulative Wild Yearling Chinook and Steelhead PIT-tag Detections \(through April 27\)](#)
- b) [Daily Smolt Passage Index Graphs](#)
- c) [Juvenile Yearling Chinook and Steelhead Passage Timing Graphs](#) – Brian Chockley, FPC

Lorz introduces Brian Chockley, FPC, to answer any questions that the AAs might have about the data from the Fish Passage Center.

Chris Runyan, BOR, said that TMT had been looking at the plots for a few weeks and he thought that they were helpful. He said looking at the upper plot “Lower Granite – Wild Chinook”, from *Cumulative Wild Yearling Chinook and Steelhead Detections*, it did look like we were getting closer to the five-year average line. He said because that is an average line it does not really show the range around that average. He said that he had been hoping and asking to show those individual years that go within that five-year average so we can see how that lines up with our current 2026 year. He said that he was hoping that would not be too hard to do.

Lorz guided TMT to the FPC website where they had a [memo](#) with the new graphs.

- Chockley shared information pertaining to the memo and answered questions about the FPC graphs.
- The memo provided the five-year average (shown in the cumulative PIT-detections document) and the individual last five years at Lower Granite (LWG) and McNary (MCN).
- It still appears that wild Chinook and wild Steelhead at LWG (Figure 1) are a bit earlier than the five-year average and earlier than all the last five years combined.
- The memo included data through April 28, 2026.
- Figure 2 shows the data for MCN and there is a similar pattern. The timing in 2026 looks earlier than all five years, except for maybe 2024 for Chinook, for Steelhead it looks earlier than the five-year average and all five years.

Runyan said that the way that he would interpret the graphs would be that the timing for wild Chinook most matches the timing of 2024 and wild Steelhead most matched last year, except since April 10. He asked about the range in cumulative detections for wild Chinook could vary between 2400 to 900 on a given year. He asked if we have an estimate of how many fish we will get this year or if we always tag the same amount of fish so that we have the same sample size so that we can compare years.

Chockley said that these are wild fish, they are mostly fish that are tagged at traps in the various tributaries and to some degree the larger traps that the CSS uses in the Snake Basin. He said that there have not been any significant changes in trapping operations for wild Chinook and Steelhead over these five years, things have been relatively consistent. Obviously there have been differences in the number of tags but there is no way to really know exactly what we would be expecting to see this year and how it is going to shape out until the year is over. We also do not know how many detections to expect this year because of detection probabilities at MCN because the Juvenile Bypass System (JBS) is where the fish are detected and there is no detection system in the TSWs or the spillway. So the proportion of water going through the powerhouse affects detection probability and therefore the number of tags that you detect. Operations in these past five years have varied at MCN so that is why you see variability in the totals across the years. Assessing the graph is not about the magnitude of where things level out, it is about whether we are still on an increasing trend, which indicates that fish are still actively passing the Projects, or are starting to level out from a cumulative detection standpoint which means that passage may have peaked and we are on the decline and getting close to the end. Chockley said that all four of the graphs indicate to him that we are still in the thick of passage season for wild Chinook and Steelhead at both MCN and LWG.

Runyan said that he appreciated Chockley taking the time to explain the data. He said that when he looks at MCN wild Chinook it looks like the line is bending over and maybe flattening out. He asked if the data was showing the wild Chinook run was kind of ending.

Chockley said that it was hard to know right now because another thing to keep in mind is that it is PIT-tag data and it is a dynamic database so when they update on a daily basis it is possible that there will be detections from a couple of days ago that show up in the database that were not there now. What looks like a flat line in the last day or two might

end up continuing to increase when we get more data in the coming days. We will not know when things flat line until we get a consistent pattern of no longer accumulating a decent number of tags or detections. He said that he would caution on interpreting right away if there is a little bit of a flat line because he saw things jump when he updated the data the next day because he did not have the PIT-tag detections in the system when he pushed the button that morning but the next day, they are there.

Runyan asked to look at the LWG Wild Chinook plot. He said that it was interesting about how they coalesce and then there was a big range. He said that he heard what Chockley was saying, that it looks flat, it could keep going or it could go flat like 2024. He asked if there was any way to normalize the detections, if we knew how many tagged fish we have this year and then normalize it we could compare how each line up. He said that 2022 had more than twice the detection in 2025 and he did not know if we know that it was due to the number of fish that were tagged or other things.

Chockley said that it was operations. He said that LWG is even more complicated because there are PIT-tag detections in both the RSW and at the JBS. In 2022 we had much higher flows that we have had in most of the other years, including this year, and so the proportion of water going through the JBS or the powerhouse in 2022 was much higher than it was in all the other years. This was why there were proportionally higher numbers of cumulative detections in 2022 because there was a higher detection probability in the JBS at LWG that year when compared to all the other years. He said that the magnitude of the lines is not really what we need to focus on, it is the trajectory of the red line compared to the trajectory of the other lines.

Erick Van Dyke, OR, said that he wanted to make clear that this explorative idea is good so that folks could understand the data, but he wanted to step back to what the purpose of the conversation was. It was to express a response to the observed information on if fish were present in the System or not, not how the lines contrast with one another. He said though he thought it had been interesting to listen to, the chart was to support the notion that flow augmentation was supportable in actually supporting fish migration through the System. That was denied, not because the lines mean something different when thrown out this direction, but if a line occurred earlier maybe augmentation was needed earlier in that year as well. He told Runyan that the message for the chart is simply that fish were present, and they were present earlier, which supported actually augmenting flow earlier. The fact that the line left zero at an earlier date is one component that supports that. The steepness of the slope is going to vary among the years, depending on how many fish are tagged. So, you do not need to standardize this for the purpose that we use it which was to simply say that fish were present, flow augmentation would have benefitted their migration, please provide it. At this point that they asked for it a couple of weeks ago, it was denied, even though these fish would have benefited from some augmentation, that was the message that was brought to be, to bring these charts to Runyan's review.

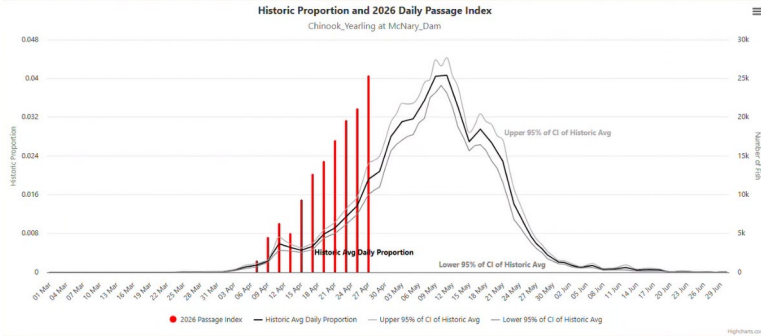
Jonathan Ebel, Idaho, said that he appreciated Van Dyke's statements and that he agreed with them. He said that he wanted to clarify for Runyan regarding standardization and this was part of why the Fish Managers (FM) are on the phone to interpret these things because they have to watch these things and there is context behind them. He said that TMT could go through at another time, but what determines the amount of tagging, most

wild fish are tagged in the Fall. What determines the availability of tags to be detected in the Spring is the tagging rate times your population size times your overwinter survival. If you have variation in your overwinter survival that is going to affect the tags available to be detected. Then the next stage is survival to the first Project, LWG, and that influences and varies by year. He said that we do not know any of these things until after the fact. Then there are the operations at LWG or MCN as well as the configuration of the PIT-tag detection systems that interact to influence the total number. When the FMs noticed that fish are migrating earlier, before these graphs were available, by just simply looking at the PIT-tags and understanding the general time frame and when certain stocks tend to migrate, like fish from the Lemhi River and fish from the Secesh River. You could see that trend pretty early based on what fish were showing up at LWG and then MCN and that formed the basis for some of the FM's recommendations this year. He said that he was glad that the FPC put this together for the Runyan and he looked forward to continuing to increase understanding in how the FMs interpret the patterns in the data that they are seeing in terms of formulating recommendations for the Action Agencies (AA).

Lorz said as Ebel noted there is a lot that goes on in these graphs and there is a lot behind them so normalizing is not something that you can do in-season. You have to wait until post-season analysis for all the reasons that Ebel had just talked about. He said that if Runyan had continued questions he would encourage him to pick up the phone and call Lorz or FPC and they could help explain things. He said it was this kind of information that FMs used in the SOR two weeks ago, unfortunately that opportunity had now been lost. He said that he hoped going forward that there is some level of understanding that the FMs are not just a bunch of knuckleheads, that they use data in a way that makes sense to the AAs now, and when the FMs make recommendations they are based on things like this and if the AAs need more explanation, please reach out so that the FMs can give it to them and not have to go back and forth so much. He said that he thought going forward it would be painful to put FM justification out there and then have people nitpick or have questions about it. The questions are great but at the end of the day these are recommendations and they are why the FMs do these things. He said that he hoped that going forward, if the AAs have questions to please reach out sooner so that we do not have to spend a bunch of time at TMT and play what-if games.

Runyan responded that he was not trying to step on any toes and that he was genuinely curious and appreciative for the conversation and there were likely others on the call that got something out of it. It is only going to help us all have a bigger picture of what tools we are using, what we are looking at, and how to implement things. He said for whatever it was worth he was sorry for the pain and time that it took to talk about this stuff, but he did appreciate it.

- Chockley said that in the memo the FPC provided a bit of an explanation on the Daily Passage Index graph that had been part of the discussions in the last couple of weeks.



Chockley said that the graph is essentially plotting two pieces of information that can both be used to again get a sense of whether fish are actively migrating past the Projects. The black lines and the gray lines are the daily passage proportions, the average daily passage proportions based on the most recent ten years of smolt monitoring program data. Those lines correspond to the y-axis on the left-hand side. The gray lines are the 95% confidence interval because this is based on ten years we can provide some level of confidence interval. If you just look at the line, this gives you an indication that you start to see, on average, yearling Chinook at MCN typically start in early April based on the last ten years. They peak in early May, May 6 – 9, and then we start to see a decline until mid- to late-June, and they are mostly done. The black line does not change on every query, the line for yearling Chinook for this year is going to be static and is based on the last ten years and that ten years of data was not changing. What is changing daily is the red bar that is the daily passage index for yearling Chinook at MCN. There is going to be a new red bar every day that we receive data from MCN, and those red bars correspond to the y-axis on the right-side, the daily passage index. The way that you assess the graph is if you look at the red bars you can see that passage of yearling Chinook at MCN is consistently increasing so far through the sample on April 27. It seems to be increasing at a rate that matches the historic average in a sense that we are in the thick of Chinook migration at MCN. Chockley said that it tells him that they are actively migrating. If a month from now the red bars are consistently going down, then you could assess that passage is declining because we do not see a decline in passage right now with the data that we have. It is over some time that you can assess if there is a consistent decline for this year, but we will not know that until the year is over.

Runyan thanked Chockley. He said that there is a lot going on in the plot and it does help him. He said that what he thought he was hearing was if you look at the shape of the historic and it is going up, and you look at the shape of the index and it is going up, that tells you that we are in the run and then we will see how that index tops out and comes down. Once that happens, we will be able to look at those shapes and see how_ He said that he was confused because he was thinking that the red bars being significantly over the black line was indicating something. He said he had genuine curiosity because these were the plots that we have been talking about over the last two weeks.

Ebel added that the passage index is all the fish including hatchery fish. Hatchery release timings can influence this more than the wild fish. He said that this is when it comes to the prioritization of what recommendations are targeting in terms of wild fish versus hatchery stocks. A lot of things can influence how many or when the hatchery fish are

moving past a dam with respect to emergency releases and all sorts of other things. He said that he wanted to stress this point and that was why looking at both of these and why he appreciated FPC putting together the wild PIT-tag information this year to balance the passage index.

Stranz thanked everyone for the information and the questions. She said that we need to have a Year End Review where TMT invites Chockley again because TMT had not done so in a few years.

Charles Morrill, WA, said that one of the things that this does not speak to, we have not talked about a lot here, is the results that are available in PATH and the CSS that show the benefit of higher flows leading to faster fish travel times through the reaches. He said that it had been consistent through the years that database had been assessed and the data reports have been provided. He said that the ability to increase Water Travel Time and decrease Fish Travel Time is a significant benefit in terms of survival, which is why the FMs has requested additional water out of Grand Coulee (GCL), the Upper Columbia, to benefit listed wild stocks in the Upper Columbia River. That water would benefit those fish through that reach, that water would benefit all listed stocks, including hatchery fish if there, from MCN to Bonneville (BON). At this point in time the flows have come up enough that we are reaching the target flows, exceeding target flows, at both Priest Rapids and MCN. Given the information that Chockley has clearly explained on the presence of those wild fish, and Ebel, we missed an opportunity to provide additional benefits for those fish earlier. There are complications and restrictions that we have to identify and be careful with but the point that he wanted to make is that the FM's request was based on the data that we have and that they have shared and the FMs hope that makes a difference in the future.

Van Dyke said that he thought he had heard Morrill say it increased Water Travel Time. He said that it was an increase to speed up the Water Travel Time.

Morrill confirmed.

Van Dyke said that it was a common statement that we hear that kind of distorts the purpose of Water Transit (Travel) Time. It is about how fast it is moving; we want it faster; the flow augmentation would have helped provide that. He said that the terminology is commonly expressed not using speed but amount. He said that was the point that he was trying to emphasize that the increase here is to speed up the water.

4. Upper Snake Flow Augmentation Projections – *Chris Runyan, BOR*

- Water supply has been significantly below average for the year so far, especially in the Upper Snake (Boise, Payette, and Upper Snake abv. Milner)
- April 1 WSF
 - Boise: 51%
 - Payette: 58%
 - High-C: 70 %
 - There was a big drop in March with the early warm temperatures.

- Current Upper Snake Projection
 - Total Volume Projected: 477 kaf
 - Lower Bound Target: 427 kaf
 - Possible due to good carryover storage from last year and utilizing some, if not all, of the power head space in the Boise and Upper Snake.
 - Numbers are preliminary, final numbers will be based on the final estimates based on rentals out of the Boise and Payette.
- Estimated Projection Total: 427 kaf
 - Abv. Milner: 92 kaf
 - Natural Flows: 77.6 kaf
 - Payette: 180.6 kaf
 - Boise: 76.8 kaf
- Operations:
 - Boise is starting to release some flow augmentation.
 - There are discussions to get Milner flow augmentation soon, still working on timing.
 - Runyan committed to reporting numbers as they are finalized over next month.

Van Dyke said he appreciated the update and wanted to thank him for exploring ideas for releasing that in the Spring instead of waiting until later. He said that it is great and he appreciated that. He said that he looked forward to hearing more about the process and how it played out this year. He asked if Runyan could remind TMT how much flow augmentation was provided last year, if it was the lower bound or the upper bound would be fine. He said that it was the carryover comment that made him wonder. He asked if that meant that it was stored from the previous year.

Runyan said yes and that can help. He said that even though we had 51% of the average runoff in the Boise, we had flood control and that is because the majority of irrigators and water contract holders did not use all their water, they saved water, so that helps a lot.

- Last year total release: 476872 acre-feet
 - In the upper end, above the 427 kaf but under the 487 kaf.

Van Dyke said with the nuances that Runyan brought in at the kind of things that over the decade or so that FMs have been hearing this detail they have been thinking about. He said that he could carry that thought on to a later date. He appreciated the update.

Ebel said that carryover is really important in Southern Idaho. It is important for the stability for irrigators in looking out to the following year. It is the basis of some of the calculations on how much flow augmentation is provided. It also serves and is important for maintaining flows for resident fisheries as well as reservoir levels. He asked Runyan if BOR had a consumptive use projection for Water District 1 that could be used to make a semi-educated prediction on what the release of power head space water will do to carry over at Palisades.

Runyan said that he would want to rap the BOR's Upper Snake field office and we could talk to Water District 1 and get that. He said that he did not know that offhand but like everything there is a range and we can definitely talk about the range.

Ebel said that it was something that he was thinking about after the conversation yesterday, that, going back to his comments on resident fisheries and stability, out year stability and operations, he thought it would be useful to have. He said that it would be something that they could chat about.

Swank said that he was wondering if Runyan could give a very high-level summary of how the lower bound and upper bound targets are set. He said that he assumed it was tied to the WSF.

Runyan said that he might need help from NOAA. He said that in the BA and via other agreements such as the term sheet. In general, BOR tries to hit 487 kaf every year, the next threshold it 427 kaf. For this year, in order to hit that we have to use what is called their "power head space", which can be very difficult to refill and preceding future years, because you need to refill the whole System. This is that year, we have had it full and we have not used it and we hold it over to be able to get us to that threshold. There are other years, a few years back, where if we do not get the rentals and we do not have the power head, and the water supply and the carryover is really low, we cannot even get close to the 427 kaf. A few years ago we were not even able to get to that, it does happen but we try to use a combination of the space that BOR has in the reservoir and the actively seek rentals from all of the Basins, which is dynamic each year, we have power head space and there are a few other things. The 427 – 487 kaf range is in the BOR's BA.

Swank said it sounded like he should be asked the question of NOAA and that he could give Kelsey Swieca or Trevor Conder a call and speak to them offline.

Runyan said that he is not an expert on the whole background of those numbers.

Ebel said there is a chapter in the Comparative Survival Study (CSS) from a couple years back that goes through a lot of these details and provides more background. He said that he could send Swank that if he would like. He said that BOR used the power head space in 2022. He asked when that refilled or how long it could take to refill a power head space. He said that it is not just for flow augmentation, in the Palisades, it is essentially the conservation pool of Palisades Reservoir, on paper it can move around and all that complexity, we went through this a few years ago. He asked how long it took to refill the last time that BOR used it.

Runyan said that was not an easy question and he did not have the numbers in his head. He said that he could get that for Ebel. He said essentially it requires a large water year where we have active flood control and the System fills. You could probably look at percent average run-off, but it takes a bigger, active flood control year to fill all accounts.

Swieca said that Ebel was correct, there is a chapter in the CSS that Ebel had authored about the Snake River Flow Augmentation. She said that she also recommended that Swank also review the text in the BA and the NMFS' 2008 BiOp (which she could share with him) to make sure that he had a full and complete picture on what was consulted on and understand NMFS' perspective on Upper Snake River Flow Augmentation. She

asked Ebel about his clarification questions about how long it takes to fill power head. She asked him to comment on whether or not turbidity was still a concern with any power head releases, particularly from Palisades.

Ebel said that he was not sure if this had come up in TMT. He said that BOR did a sediment survey at Palisades after the request of the State of Idaho of power head in 2022. He said that they still do have concerns with that sedimentation. What the sedimentation survey did was it adjusted the total volume and allocated that volume across the different pools, or buckets of water within Palisades, and then it adjusted storage all over the place. BOR did a good job. One thing that was missing from Ebel's perspective and was the basis of Idaho Fish and Games' concern, was the stability of the banks toward the bottom of the reservoir. He said that when you get below 8% active storage, or even lower than that, the concern is still there because bank stability was not measured and whenever you get low in a reservoir, which ID has a lot of experience with this, there is always a risk of mass sedimentation, or mass sediment mobilization in a reservoir so the risk is always there.

Swieca said that answered her question. She wanted to confirm that was still something that ID was interested in bringing into the conversation and it sounded like it was.

Ebel said that he answered like that is the risk still there from their perspective, yes. He said whether from IDFG brings into the conversation that they will acknowledge that the risk is still there, there is a metric that was not measured and that was the true basis of that risk in that concern.

Swieca said that she understood what he was saying and we would have more conversations about the Upper Snake Flow Augmentation as the season progresses.

Morrill said that a comment that the FMs have had in discussions in FPAC. He said that we do not have water reservoirs anywhere near the size of what we have in the Upper Columbia and we have seldom, in the last several years, seen an average flow at LWG above 100 kcfs for the Spring season. He said that he wanted to point out that we appreciate whatever water we can get, however, to achieve the desired travel times for fish through the Snake, the discussion that we have had in FPAC says that we need about 140% of what the average has been and a high flow year for the Snake would be anything over 100 kcfs so it is a challenge to be able to realize the volume and the flow of water that we need to provide faster fish travel times from the confluence of the Clearwater to the confluence of the Columbia and the Snake and that is going to continue to challenge that. He said that he wanted to share that perspective that we appreciate any opportunities that we have to provide additional flows. It makes a difference. And then the other side of the coin is obviously in the mid-Columbia the opportunity to increase water particle travel time and fish travel time is something that we need to work together to find a better way to make that work for all stocks from MCN to BON, especially during the time period when CSS shown the greatest benefit to in water survival and SARs.

5. Agenda – *Wednesday, May 6, 2026*

Meeting Location: Microsoft Teams

- a) Treaty Flow Augmentation Request

b) Non-Court Ordered Operations Review

- Lorz noted that at FPAC they had noticed some interesting flow fluctuations.
 - They think that Little Goose was a dead band issue.
 - They are asking to have further discussion on the flow fluctuations at The Dalles.
 - FMs would like to have explanations.
- Stranz said that it was a good note for the Corps so they could check on that internally before next week.

6. Future Agenda Topics

a) Upper Snake Flow Augmentation – *Runyan, BOR*

- Final numbers will be available around June 1.
 - Target will still be 427 kaf.
 - Coordination still needs to be done.

b) Kootenai River White Sturgeon Flow Pulse Release

- Swank said that the White Sturgeon Pulse release should be scheduled soon.
 - Greg Hoffman is working on that now and Swank will touch base.
 - Will need to be scheduled sometime in May.
- Brian Marotz, MT, said that he thought it would be more informative to have the tiered flow presentation after FPIP had a chance to schedule the tiered flow and understand the shape of how the water will be released.
 - The May Water Supply Forecast locks in the tiered flow volume for the year.
 - The tier update might be useful earlier, but the overall discussion of White Sturgeon recovery actions would be best scheduled after FPIP's work on shaping.

7. Additional Comments/Questions

Morrill commented about what was being seen in the flows at MCN right now. Over the next ten days or two weeks the latest traces suggest that we will finally be above the biological target of 240 kcfs for this year, which is a good thing to see.

Today’s Attendees:

Agency	TMT Representative(s)
NOAA Fisheries	Kelsey Swieca, Trevor Conder
Oregon	Erick Van Dyke
Washington	Charles Morrill
Kootenai Tribe	
Confederated Tribes of Colville Reservation	
Umatilla Tribe (CRITFC)	Tom Lorz, Pete McHugh
Yakama Nation	Tom Iverson
Bureau of Reclamation (BOR)	Chris Runyan
Army Corps of Engineers (COE)	Aaron Marshall, Lisa Wright
US Fish & Wildlife Service	Dave Swank
Idaho	Jonathan Ebel
Montana	Brian Marotz
Spokane Tribe	Brent Nichols
Nez Perce Tribe (NPT)	Jay Hesse
Warm Springs Tribe	
Confederated Salish and Kootenai Tribes	
Bonneville Power Administration (BPA)	Tony Norris, Ben Hausmann

Other Attendees (non-TMT members):

COE – Megan Biljan, Chris Peery, Oscar Espinoza, Tiffany Dixon, Alexis Mills, Kenneth Sears, Daniel Turner, Patricia Madson, Haytham Oueidat, Michelle Yuen

BOR – Ryan Fosness

BPA – Tammy Mackey, Carolina Andes

Washington Ecology – Thomas Starkey

Oregon DEQ – David Gruen

DS Consulting – Emily Stranz (Facilitator), Colby Mills

CorSource – Andrea Ausmus (BPA note taker, Contractor)

EKI – Eve James

Clearing Up – K.C. Mehaffey

IPC – Frank Gariglio

GCPUD – Joseph Akers, Eve Stites

AVA – Steve Lentini, Patrick Maher, Mike Dillon

PGE – Phil DeVol

FPC – Erin Cooper, Noah Campbell, Brandon Chockley

Energy EPS – Joshua Rasmussen

Columbia Basin Bulletin – Mike O’Bryant

PSE – Jessica, Mitch

Unaffiliated – Mike Buchko, Ryan Mihuc, Eric Wood