COLUMBIA RIVER TECHNICAL MANAGEMENT TEAM
November 15, 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.

Review Meeting Summaries & Minutes – TMT Members approved the official meeting minutes and facilitator's summaries from the October 25 and November 1 meetings.

Chum Operation – Doug Baus, Corps, updated the TMT on the current chum operation (posted on the TMT website) that started at Bonneville Dam on November 1 at 0600 hours with a coordinated project outflow to maintain the tailwater within an elevation range of 10.3 – 11.2 feet (if necessary to increase project outflow, maintain the tailwater within a range of 11.3 – 13 feet). The operation was revised on November 6 to transition to an elevation range of 11.3 – 13 feet by November 9 at 0001 hour. Current project tailwater elevation at 0700 hours this morning was 11.6 feet.

RFC inflow forecasts over the next 10 days show a spike of 156 kcfs on November 16, then back down and around 125 kcfs for the remainder of the 10-day period. The 10-day meteorological forecast shows incoming precipitation today, ranging from ¾ up to 1 inch in northern Idaho, with freezing levels dropping to near sea level in the upper Columbia River Basin. Things start to dry out on Thursday and Friday, with light precipitation forecasted for Thursday in central Idaho and northwest Montana. Saturday will have localized precipitation west of the Cascades and more towards the end of the 10-day period. Doug noted that although some precipitation is forecasted, the 10-day QPF (and 5-day QPF) throughout the entire Columbia River Basin remains well below average.

Climate forecasts for the next 6-10 days show a probability of above average temperatures and near-to-below-normal precipitation. The 8-14-day outlook is similar, while the 6-14 day shows a probability of above average temperatures and variability for precipitation. In the western basin there is a probability of below to near normal precipitation. The 30-day outlook shows a probability of above average temperatures and precipitation.

Doug reported that an unscheduled meeting was added for November 29, per the request of Salmon Managers. If the meeting is not needed, Tom Lorz, FPAC Chair/Confederated Tribes of the Umatilla Indian Reservation, will notify Doug to cancel the meeting.

Tony Norris, BPA, noted discrepancy in the RFC, STP and BPA forecasts, as BPA is not expecting a 2-day peak in inflows as RFC has projected in the 10-day forecast. BPA expects to continue to support the chum operation which is expected to draft Grand Coulee across November; BPA expects to recover Grand Coulee's pool elevation in December. Charles Morrill, WA, noted that WDFW corroborated this expectation.

Aaron Marshall, Corps, clarified that this discrepancy is commonly seen with STP forecasts during the chum operation, with Grand Coulee forecast to draft deeper than what is typically observed; STP inflow traces tend to be dryer. Tony added that November and December are typically the wettest months in the region. Jonathan Ebel, ID, wondered why the STP forecasts were used in part to justify the delay in normal chum operations, if the STP is currently considered less accurate. Tony responded that the STP in mid-October was worth considering prior to the change in conditions seen recently. The start of the chum spawning operation was a success from BPA's perspective, saving some water and then transitioning to a higher elevation range as soon as conditions changed, the need to augment from Grand Coulee was reduced. Joel Fenolio,

Reclamation, noted that the operation potentially saved water heading into an El Niño year, and agreed it was a successful operation overall from Reclamation's perspective. Jonathan emphasized a desire to be more cautious when considering water supply. Charles noted that for future operations like this, WA will do better to coordinate with Idaho. Kelsey Swieca, NOAA, highlighted the nuances in different forecasts used at TMT, with the reminder that some forecasting methods are publicly available, and some are not, and that Salmon Managers might find it helpful to have assumptions and any additional data included with future forecasts to help make better rounded decisions in managing the system for fish and water.

Tony highlighted observations from a memo on the 2023 chum spawning operation that was sent out earlier this week and can be viewed on the TMT website. Monday saw a significant increase in Hamilton Springs and Creek flows, Kelsey emphasized that the uptick in flow out of Hamilton Springs contributed water into the habitat and is an important component of habitat availability in that region; the timing was very beneficial. Dave Swank, USFWS, noted that his observations of the Hamilton Creek area on November 3 saw a slight decrease in water levels; he saw 4-5 chum in Hamilton Creek. He noted the Ives Islands/breaks area at that time was lower than normal, as expected at that elevation.

Kelsey reported on the chum portion of counts at Bonneville Dam, noting that 450 chum have been counted over the project so far which is higher than normal (most seen since 1998). Updated spawning surveys should be coming soon (most recent is from November 9). November 6 and 9 saw live chum and redd formation in the region (Ives/Pierce, Multnomah, Horse Tail areas). Charles noted pretty good numbers at the Ives/Pierce complex, recent data show 461 live chum on November 13. Chum are present in the areas being monitored, and he noted that the timing of the chum operation appears to have provided water for the chum when needed.

In response to Charles' video footage of observed conditions at chum spawning sites, Jonathan asked if there were observed impacts of the 10.5 feet elevation tailrace on chum use in the area at the arrival and beginning of the spawning period? A more complete review will be available at the end of the operation, Charles noted that it appears the operation made the best use of what water was available, and timely precipitation benefitted flows out of Hamilton. Kelsey added that NOAA, BPA, and WDFW are exploring options for how to best document this operation and quantify the benefits as best possible to provide to the TMT.

Zero Generation – Tony reported that steelhead passage criteria to trigger the availability of the zero generation flexibility on the lower Snake River have been determined. Kelsey reminded the TMT that the trigger for the option to implement zero flow (zero generation) at the lower Snake River projects is based on 2 criteria, a date and abundance. The date criteria are December 1 to February 28, and the abundance criteria use a sliding scale of total and unclipped steelhead abundance at Lower Granite since July 1 (outlined in the WMP and 2005 SOR); both criteria must be met for operation implementation. The WMP states criteria for total steelhead this year will be 35 and unclipped steelhead will be 10. Tony clarified that passage numbers aren't observed to drop until water temperatures drop, which will not be for quite a while, and BPA can continue to update TMT on conditions. Once the trigger is met, NOAA will send email coordination to TMT.

Lower Monumental Dam Operations – Doug provided an update on Lower Monumental operations that occurred on Monday. The line outage on Monday was associated with work done on transformer 2 (T2). There will be an additional line outage scheduled for Thursday associated with that work. The Corps will provide more details to Tom when available.

Questions and Comments from Members of the Public – There were no questions or comments from members of the public.

There is a tentatively scheduled TMT meeting on Wednesday November 29, at 9:00 AM.

The next regularly scheduled TMT meeting is the Year End Review on December 6, 2023, at 9:00 AM.

Columbia River Regional Forum
Technical Management Team
OFFICIAL MINUTES
Wednesday, November 15, 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.

1. **Review Meeting Summaries & Minutes** – October 25, November 1

    - Both documents were approved.

2. **Chum Operations –** *Doug Baus, Corps-NWD; Tony Norris, BPA; Joel Fenolio, BOR; Charles Morrill, WA; and Kelsey Swieca, NOAA Fisheries*

    a. TMT–Coordinated Chum Operation – *Baus*

    - Chum Operation started Wednesday, November 1, 2023, at 0600 hours.
        - Coordinated operating project outflow to maintain the tailwater within an elevation range of 10.3 – 11.2 feet.
        - Step 3, if necessary, to increase project outflow; operate to maintain the tailwater within an elevation range of 11.3 to 13.0 feet.
    - Revised on November 6, 2023, to if the tailwater is not operated above 11.2 by Thursday, November 9, at 0001 hours then they would transition to an elevation rang of 11.3 – 13.0 feet.
    - Remaining steps are as continued on.

    b. Bonneville Dam – *Baus*

    - Project Tailwater Elevation (Hour 7): 11.6 feet
    - Wednesday Average Tailwater: 10.5 feet
    - Thursday, 11/9/23, Day Avg. (Hour 9): 11.6 feet

    c. NWRFC - Inflow Forecast – *Baus*

    - RFC Inflow Forecast (Ten-Day)
        - Spike over next one-day period (November 16)
            - ~156 kcfs
        - Inflow forecast then comes back down for the remainder of the ten-day period.
            - ~125 kcfs

d. NWRFC 10-Day Meteorological Forecast – *Baus*

- Northern Idaho
  - Between ¾ to 1 inch of precipitation rolling in today (November 15).
- Upper Columbia
  - Freezing levels near sea level.
- Central Idaho, Northwestern Montana
  - Very light precipitation forecasted for Thursday.
  - Friday things start to dry out until Saturday.
- West of the Cascades
  - Localized precipitation.
  - End of the 10-day more precipitation rolling in.

e. RFC Forecasted Precipitation Summary – *Baus*

- 10-day QPF (Percent of Climatology) – as it relates to percent of average
  - Well below average.
  - Despite the precipitation, we are well below average for the Columbia Basin.
- 5-day QPF (Percent of Climatology)
  - Well below average.

f. NWRFC Climate Forecast – *Baus*

- 6 – 10 Day Outlooks:
  - Temperature – above average
  - Precipitation – near normal to below normal
- 8 – 14 Day Outlook
  - Temperature – above average
  - Precipitation – variability
    - Western Columbia Basin – below probability to near normal
- 30 Day Outlook
  - Temperature – above average
  - Precipitation – above average

Baus told Tom Lorz, Umatilla/CRITFC, that as they had discussed he added an additional meeting on **November 29, 2023**. Baus requested that if there is not a need for that meeting that Lorz email him so that he can send out a cancellation.

g. Forecasts – *Norris*

- Norris said that he is not sure where the RFC gets that forecast.
  - BPA is not expecting two days of a peak like RFC is forecasting.
  - There is nothing in the forecast that would suggest that will occur and Norris is not sure how that is derived.
  - Did not come from the Corps or BPA.
- BPA is expecting to continue to support the chum operation.
  - They are drafting Grand Coulee (GCL) as a result but that is not atypical.
  - STP showed some significant draft across November and December.
  - The December ending elevation for Grand Coulee in the STP is pretty unlikely looking at performance over the last 20 years of operating to chum.
  - They have not ended December below 1280' except for a couple of years, even then the lowest in the last 20 years was ~1278'.
  - They expect to recover GCL pool elevation in December.
  - Not foreseeing any issues continuing to support this tailwater elevation.

Charles Morrill, WA, told Norris thank you, when he saw the peak he was also surprised.

Jonathan Ebel, ID, asked why the STP was so far off. He asked where the discrepancy was coming from because it seems pretty extreme relative to what Norris said is normal.

Stranz said that maybe we should have someone from the Corp speak to the STP.

Aaron Marshall, Corps, said that this is something that they commonly see with their STP forecast this time of year when they are looking at the chum operation. We see GCL drafting deeper than what we actually end up observing. So, the inflows upstream tend to be drier from the RFC forecast when you compare that with the BPA forecast. Different inflows are produced by each agency and then routed through the system based on expected project operations.

Norris added a highlight of the previous week's STP to this week's STP. He said that there were some changes. He said that he though last week's drafted the Libby to the lowest variable end of the December range and this week's drafted Libby to its uppermost elevation in that variable end of December. He said the differences of just 3 or 4 kcfs from each of the elements that adds up to 10 or 15 kcfs which is equivalent to about 1/3 of a foot per day of draft at GCL. After many days that adds up. A quick note on below average precipitation does not mean no precipitation. November and December are statistically our wettest months and if get even just a couple weeks of wet weather and it generally is enough to reduce the augmentation needed at Bonneville.

Ebel told Norris and Marshall thank you. He said that he is a bit perplexed that when we were coordinating the chum operation and delaying it, the STP was used in part to justify that delay but now the Action Agencies are saying that it is off. He said that he understands that the STP is often quite a bit off because he looks at Dworshak often but in this case, he thinks, we discussed the STP as part of the rationale as delaying the chum

operation because that was low. Now we are three weeks later, and now from what he is hearing it appears that the Action Agencies are being nonchalant about the STP, it's wrong. He wanted to make sure that he reconciles that in his own mind.

Norris said in that in mid-October, that is when it is worth considering. In mid-October we were seeing a draft to 1270' in November and then continued draft in December. He said that was a signal that in the middle of October before the rains started coming in earnest before we had a change in conditions that it was a concern. Norris said that operation was a success because in those first eight days of the operation we filled GCL six tenths of a foot, so we met the objective and transitioned to the higher tailwater range as soon as conditions changed, and we had significant flow out of Hamilton Creek and the forecast had changed so that the draft from GCL was minimized. He said that the difference now is that we are further down the road, into the middle of November and even if the STP is significantly overestimating the amount of draft, is not likely to jeopardize our ability to refill to April 10. Mostly because December is statistically our wettest time year. Norris said that our concerns for the draft we are seeing in mid-October was significant because of what it looked like for November, but the draft that we are seeing in the STP as of mid-November seems less likely considering historical performance across the past twenty years. The likelihood that we are going to get precipitation in December is much better than what was represented in the STP.

Joel Fenolio, BOR, said that Norris is very optimistic about precipitation as usual this time of year, but he is not. He is a little bit more pessimistic, and we are going into an El Niño year so this potentially did save us water and elevation in GCL. It was not just looking at the STP back in mid-October, it is coupled with we are going into a strong El Niño year, we have low base flows, and we still have low base flows. It was helping save water and we did adapt and started releasing water earlier when we did see the chum show up in Hamilton Springs or Hamilton Creek start to flow. Fenolio said that he does agree with Norris, it is a successful operation overall.

Ebel said not to interpret that he is suggesting that we should not have delayed it. He said that he is leaning more conservative with water. He said that he wanted to make sure that we do not become overly optimistic with water and get ourselves into a situation that we cannot take ourselves out of. He said that part of it is the tone, and maybe his own tone in how I set that up is different. He said that the information that is provided to his as a Fish Manager is not the same as the information that Norris has. He like Fenolio has some pessimism toward the water supply and so he thinks we need to be cautious with the tone we take about how much water we have.

Norris wanted to be clear that he never said that there will be plenty of water. He said that he expects to be able to generally draft GCL to support the chum operation and at some point statistically speaking we should be able to recover sometime in December.

Marshall said that he would add in respect to the comments about the forecast that we have a tendency for the RFC forecast to be drier side. However, it does remain as possible outcome and as Fenolio mentioned, we do have an El Niño year with those conditions setting up there is a tendency for that type of climate signal to create drier and warmer conditions in the Pacific Northwest. He does agree with what Norris said that the performance of the forecast tends to run on the lower end and what we see with the

observed conditions is more water coming in than is projected by the RFC and flow forecast. He did want to say that this remains a possible outcome so maybe proceed with cautious optimism.

Morrill said he thinks that Norris, Swieca, and himself owe Ebel an apology for not looping him in when they made the decision that we had sufficient water when they were out at Ives on the 6th or 7th. He said that they had had a long discussion then, Norris was engaged with his side ensuring that the operation would be okay, that we did not have a concern about a serious impact on GCL withdrawal. Morrill said he thought reaching out to share that with Ebel may have alleviated some of his concerns. Morrill said that we still share that concern. Morrill said that he wants to let Ebel know that next time that they get into that situation he promises one of them will reach out to Ebel and let him know what is going on. Morrill said that he thinks that Norris and Fenolio's comments still stand. When Morrill looked at the projected inflows based on the STP he asked where is was coming from because having watched the precipitation events he had not expected to see that type of bump at all. He said that he felt that Norris addressed that well this morning.

Swieca said that she appreciated this conversation about the nuances about the different forecasts that we discuss here at TMT. She thinks that it is important to continually recognize that some of the forecasting methods are publicly available to the Salmon Managers and others are not and we have to toe this line between data we can see and data we are provided anecdotally through other sources. She said that she thinks that it is a good reminder that we are Salmon Managers trying to dabble into the world of precipitation forecast but we could sometimes use a little help understanding the nuances between these different forecasts and how they impact our decisions. She said if it is at all possible, it would helpful when we get those STP forecasts to include some of the assumptions that go into those forecasting methods. She said that she has noticed over the past year that the Corps has done a good job of starting to provide assumptions within their emails. Swieca did add that anytime that we can add some of that additional data, especially when we are expecting discrepancies between the forecast the Salmon Managers can see versus the ones that are anecdotally discussed in the TMT group would be helpful. She said that it helps them make better decisions and also helps them be more well-rounded when it comes to managing this system of fish and water.

Stranz reminded TMT that there are some year-end tentatively scheduled presentations on forecasting.

h. 2023 Chum Spawning Operation Memo

Norris

- Highlighted some observations, Friday, November 3, 2023.
  - Hamilton Springs and Creek were running to the river into the Ives Channel.
  - No chum spawning observed in Hamilton Springs.
  - Chum or some salmon were observed spawning below the mouth of Hamilton Springs – in an area where we have typically seen chum spawn in

low water years. Significant amount of water flowing through the area so they saw activity – whether it was chum or chinook Norris could not tell the fish were too far downstream.

- Norris observed in the Ives Channel area two to three chum spawning downstream of the ripple where they have marked chum in the past.
- Also observed a chum transiting from Hamilton Creek downstream to the Ives Channel area.
- Ran into Rick Heitz, PSMFC, in the refuge. They were checking on Hardy Creek. They noted that they had seen spawning activity at McCord Creek.

- Monday, November 6, 2023.
  - Norris returned with Morrill and Swieca.
  - Observed ~20 chum in Hamilton Springs and a handful or more spawning in the Ives Channel area as well.
  - Ran into Rick Heitz crew out there and they were walking the channel and they said that they had seem chum spawning in Woodard Creek, the Breaks, and McCord Creek – all the usual locations.
  - Huge increase of Hamilton Creek and Springs flow on Monday so there was more than sufficient access. The water was flowing robustly enough out of Hamilton Creek that it inundated the pool upstream of Hamilton Creek.
  - Norris said that he thought with the water and forecast at the time it was a good time to transition to the 11.3' protocol.

Swieca shared that there was a big uptick in the flow out of Hamilton Springs and that was the contributing a lot of water into the habitat and was a very important component of the habitat availability in that region.

Morrill added that the precipitation timing for Hamilton Creek was very beneficial.

Swank

- Condition observations, Friday, November 3, 2023, Early Afternoon
  - Hamilton Creek had dropped a fair amount over the last couple of days.
  - Saw about 4 or 5 chum in Hamilton Creek.
  - No chum in Hamilton Springs, the artificial spawning channel. Swank walked it all the way up to the top of the right-hand fork. He said that he thought it might have been a little lower than normal but not too much.

Norris said that where he was seeing the fish spawning was downstream of the ripple downstream of mouth of Hamilton Springs. He said that the ripple is right before it takes the bend and is part of the old Springs Channel that used to be there before they rechanneled Hamilton Creek.

Swank said that he was just upstream and that there were chum that had gotten in there when the area had gotten higher.

- Mouth of Hamilton Creek and Ives Island area was at minimal water level, just enough water for fish to get up into Hamilton Creek.
- Saw some salmon shoot through that very low connection, they were making it, but their backs were out of the water. It was barely enough water for them to get up.
- Resolved with additional rain.
- Walked around Ives Island up to the Breaks, there were 2 or 3 redds visible. It was a little windy and harder to see. It was as expected at that elevation, slower and shallower than normal for the chum spawning operation because it was only at 10.7/10.8' at that point.

i. Bonneville Dam Adult Salmon Count – *Swieca*

- Chum counts: 450 YTD
- More than typical
- There were a couple high days in the 20s and upper 30s earlier this week.
- Looking forward for ending number this year.

Norris said that 450 chum is the most that we have seen over Bonneville Dam since 1998. In 2003 we had 411 and the last couple years we had over 300. It is a good sign.

j. Ives/Pierce Spawning Surveys (November 9) – Swieca*; Morrill*

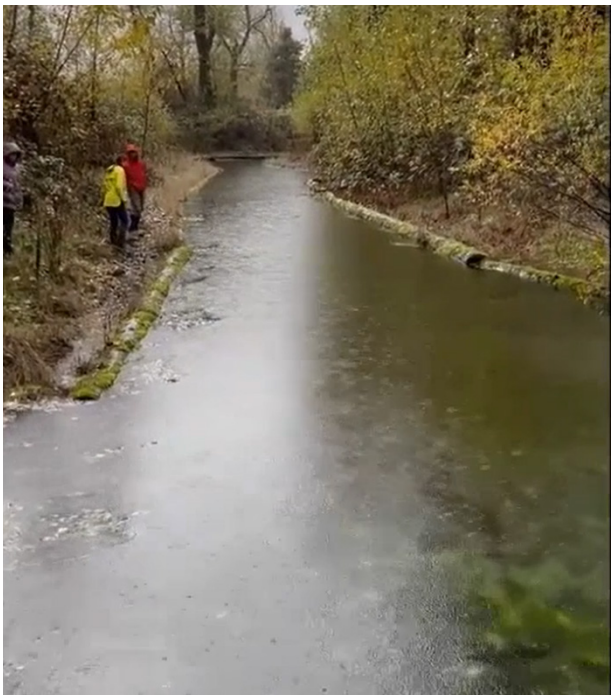
- November 6 & November 9 starting to see live chum and redd formation in the region, Ives Complex, Multnomah, and Horsetail.
- Morrill shared the following data:

Survey_Date	Population	STREAM_LUT_Id	TREAM_REACH_Coc	River_Miles	3ILITY_TYPE_LU	Comments	CM_Lives	CM_Deads	CM_Redds	CK_Lives	CK_Deads	CK_Redds
11/13/2023	Mainstem Columbia	Columbia River	Ives/Pierce	141 - 143	Excellent		461	1	99	673	32	135
11/9/2023	Mainstem Columbia	Columbia River	Ives/Pierce	141 - 143	Good	Windy	106	1	29	364	16	73

  - November 13 Live Chum: 461
  - November 9 Live Chum: 106
- Morrill provided the table for TMT members who would like it.
- He said the timing of the operation has provided water in a timely need this year.

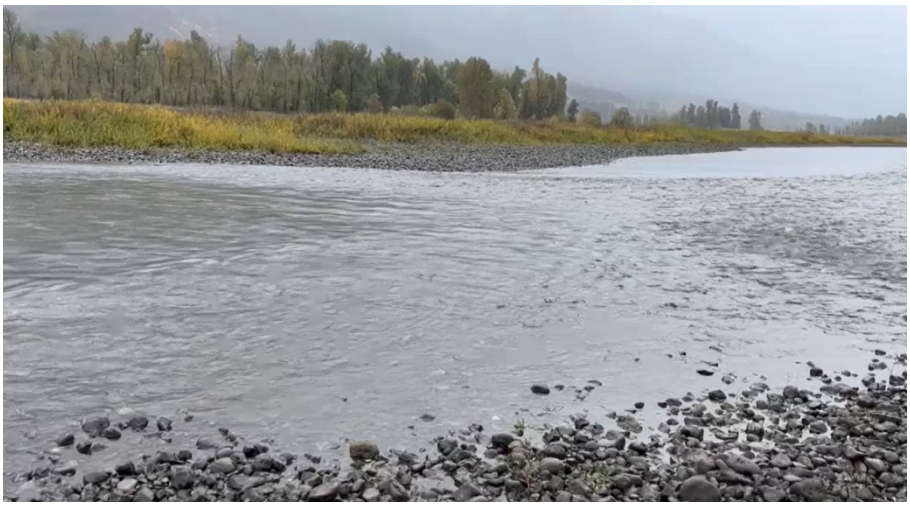
Stranz said that people will continue to watch and check in on this and our next meeting is scheduled for November 29.

Morrill shared videos from when he was at the Hamilton Slough with Norris and Swieca. Morrill described the video (Screenshot 1) as downstream, above the Breaks. If there were Chinook in there, they would be mass spawning. He said that this was at an elevation of 10.7/10.8'.



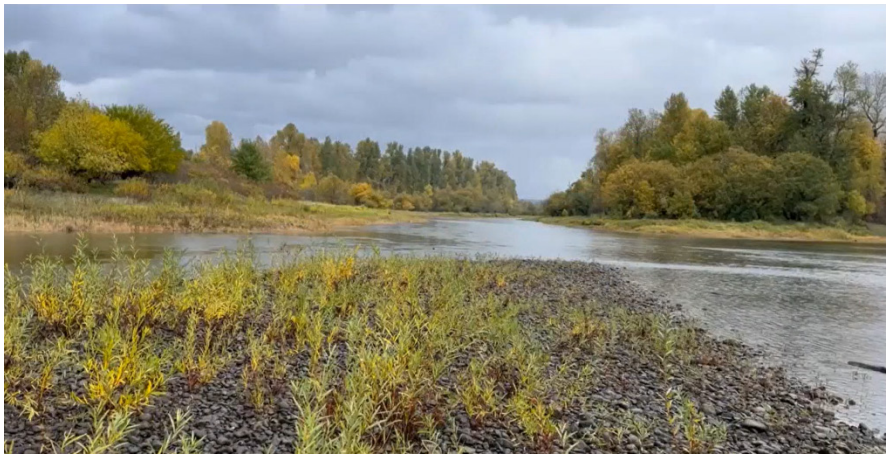
Screenshot 1: Hamilton Springs 6 Nov

Morrill shared another short video (Screenshot 2) of the west end of the Springs. He said that there was plenty of water in there. Fish and redds were visible.

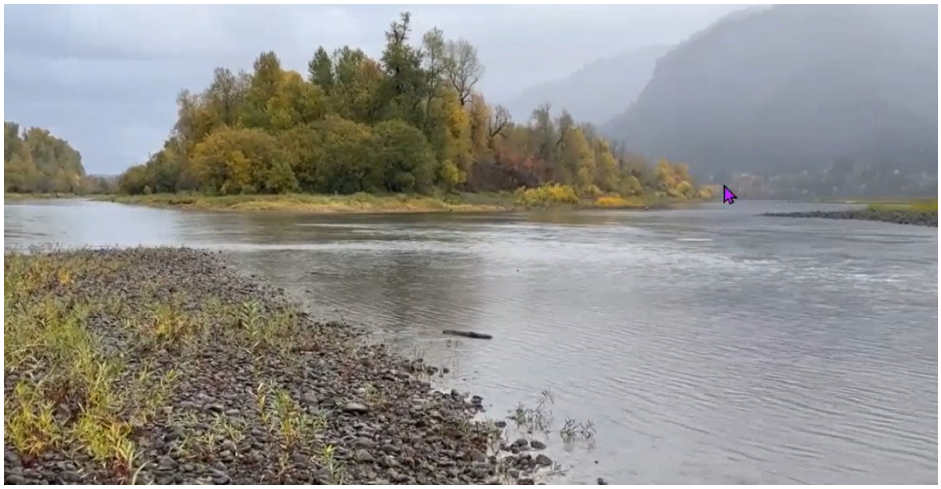


Screenshot 2: Downstream – 6 Nov Ives Breaks

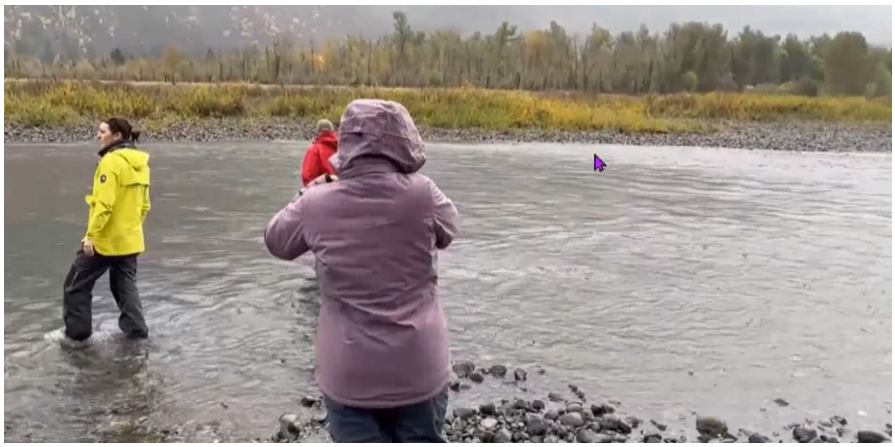
Morrill shared a final video that gave a wider view of the river. It started looking upstream at the Hamilton Slough (Screenshot 3) and continued to the Breaks (Screenshot 4) and then also showed the downstream ripple (Screenshot 5) where there are typically a lot of Chinook spawning. He also mentioned that typically at this level it would be half out of water. He said they met Ricky and the crew near there. He said he wants to get back out there and do it again from the same perspective. He took a GPS mark from where he took the video and have that to add to information as we watch what goes on.



Screenshot 3: Looking upstream at Hamilton Slough 6 Nov.



Screenshot 4: Breaks where the water comes into the higher elevation 6 Nov.



Screenshot 5: Ripple 6 Nov.

Ebel said that part of the plan was to keep the tailwater a little lower, save some water, and assess the chum response. He said that he thinks part of it may have been altered by a

precipitation event but he asked if TMT got any information or closure on the impact of a 10.5' tailrace on chum use of the area on arrival and beginning of the spawning period.

Morrill said yes, we did. He said that Swank and Norris had said that on November 3 there was enough water to get up into Hamilton. He said that the Ives area was not accessible at that point in time. With the unexpected but timely additional water that brought Hamilton Creek up definitely made a difference in providing additional access to fish to that area. He said that Ebel was part of the discussion that Todd gave at FPAC that gave us a summary and slides. He said that the combination of the additional precipitation, additional flow out of Hamilton with the benefits that the 10.7/10.8' did provided some access to it and then they made the decision based on the input from BPA, the Corps, and BOR on Monday that we would not have a negative impact on GCL drawdown and that BPA, the Corps, and BOR felt comfortable going to 11.3/11.5' to 13.0' on Thursday, November 9. Morrill said that we will have a more complete review at the end of this, but it does appear that we made the best use of what was available and the fact that we had timely precipitation that benefited flows out of Hamilton that makes this look like a prudent operation given a limited water outlook.

Swieca said that NOAA, BPA, and WDFW are exploring opportunities to best document this operation and try to quantify the benefits to the extent possible. She said that we are going to have to put some brainstorming in there and get all of our information together in one place, but she said just know that we are having initial discussions about how to best document what this operation was and how successful it was. She said that it will be passed along to everyone once it is in a sharing form.

Marotz said thanks for the video, and he said that he is glad that Morrill set up a photo point. He said he thinks that the video point will be instructive in the future.

3. **Zero Generation–** *Tony Norris, BPA; Trevor Conder, NOAA; and Doug Baus, Corps-NWD*

   a. Criteria

   - Identify the Steelhead Passage Criteria that would trigger the availability of the Zero Generation flexibility on the Lower Snake.
   - Trigger for the option to implement "zero flow" or "zero generation" at the Lower Snake River projects is based on two criteria: a Date and an Abundance criteria.
   - Date Criteria: December 1 – February 28
   - Abundance criteria is set using a rolling 3-day average daily count of Total and Unclipped Adult Steelhead at Lower Granite (LWG) since July 1.
   - Outlined in the Water Management Plan, as well as SOR 2005-22.
   - Both criteria must be met for implementation of the operation.
   - Few criteria < # for Total: **35**

- Few criteria < # for Unclipped: **10**

Table 12: The Few Migrating Adult Criterion Trigger (SOR 2005-22)

Run to date>= #	Run to date< #	Few criteria< #
0	30,000	10
30,000	60,000	20
60,000	100,000	35
100,000	150,000	50
150,000	200,000	65
200,000	250,000	80
250,000		100

Norris noted that we do not usually see the passage numbers drop dramatically until we see water temperatures in that 45°F zone. He said that we are quite a ways away from that so we can continue to update TMT each week.

- Typically discuss at TMT the email coordination and we can bring this up again on November 29.
- Usually when the trigger is met NOAA will send out an email notice to TMT that we have hit the trigger and that the flexibility is now available.

4. **Lower Monumental (LMN) Operations Update -** *Baus*

a. The Corps received feedback about conversations at FPAC about LMN that occurred on Monday November 13, 2023.

- Baus has some brief updates but will have to get back with LMN if there are any specific questions.
- At LMN, Monday, there was a line outage associated with work done on a transformer (T2).
- An additional line outage Thursday associated with that work.
- Baus acknowledges that this is not the level of detail that Tom Lorz, Umatilla/CRITFC, was looking for but that is all the information that he has now. When he gets more details regarding the outage, he will reach out to Lorz and others that may have additional questions.

Lorz said he appreciated the update; he was just curious if it was line outage or gearbox work. He said unfortunately it was not gearbox work, it was line outage.

5. **Public Comments:**
6. **Set agenda for next meeting – November 29, 2023**

a. Year End Review

Today's Attendees:

Agency	TMT Representative(s)
Army Corps of Engineers	Doug Baus, Aaron Marshall
Bonneville Power Administration	Tony Norris, Scott Bettin
Bureau of Reclamation	Joel Fenolio
NOAA Fisheries	Kelsey Swieca
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	Tom Lorz (CRITFC)
Colville Tribe	
Warm Springs Tribe	
Kootenai Tribe	
Spokane Tribe	

Other Attendees (non-TMT members):

COE – Dan Turner, Alexis Mills

DS Consulting – Emily Stranz (Facilitator), Colby Mills

CorSource – Andrea Ausmus (BPA note taker, Contractor)

Portland General Electric – Ruth Burris

Chelan PUD – Jay Fintz

TotalEnergies – Michael Lee

Energy Keepers – Eve James

Oregon DEQ – David Gruen

Washington Ecology – Thomas Starkey