

## COLUMBIA RIVER TECHNICAL MANAGEMENT TEAM

October 23, 2019

DRAFT Facilitator's Summary

Facilitator: Emily Stranz; Notes: 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. These notes are not intended to be the "record" of the meeting, only a reminder for TMT members. Official minutes can be found on the TMT website: <http://www.nwdwc.usace.army.mil/tmt/agendas/2019/>.*

### **Review Meeting Minutes & Summary**

TMT members approved the minutes and summary from the September 25 meeting, pending additional clarification in the minutes on the Smolt Monitoring Program juvenile sampling and impacts on sampling from shad.

### **Bacterial Kidney Disease (BKD)**

Dave Swank, USFWS, provided a correction to a comment at the September TMT meeting regarding the potential for BKD transmission among juvenile salmon during barge transport. After following up internally, Dave learned that it is theoretically possible for BKD to be transmitted horizontally from juvenile to juvenile.

### **Treaty Fishing**

Kyle Dittmer, CRITFC, updated the group on SOR 2019 C-2, submitted by CRITFC for operation of the Lower Columbia Pools for the fall 2019 Treaty Fishery. It was a 6-week season that followed the requested criteria of a 1.5-foot elevation band (2-foot in the John Day pool) and stable pool elevations. Kyle noted good hydrological conditions without major natural factors, which helped provide a good clean operation with no accidents. Total fall Chinook counts were roughly half of what was forecasted. On behalf of the tribal fisheries, Kyle thanked BPA and Corps staff for their excellent work and a great operation.

### **Chum Operation**

Doug Baus, Corps, reported on conditions. Bonneville Dam at 0700 hours had a total outflow of 93.3 kcfs, with a project tailwater elevation of 8.6 feet. The NWRFC inflow forecast shows relatively high inflows ranging from 90-100 kcfs over the next 3-day period; inflows are expected to decrease to 83 kcfs from Oct 27-31, and then increase up to 103 kcfs by the end of the 10-day period.

Forecasts show high precipitation early on in the 10-day period in the Upper Columbia Basin, with low freezing levels, which will help snow accumulation. The 6-10 and 8-14 day outlooks are cold and dry, with a probability of below average temperatures and precipitation. Looking ahead to the 30-day, there is an equal chance of above or below average temperatures and precipitation.

Paul Wagner, NOAA, reported on chum counts over Bonneville Dam, with 1 on the 19th and 2 on the 22<sup>nd</sup>, and a total of 5 YTD. This is similar to what is historically seen at this time. Paul

noted that chum operations will require flow from reservoirs and local precipitation, and advised caution based on the dry 10-day forecast. Tony Norris, BPA, added that chum haven't been seen yet around Ives/Pierce Island, and there is only just now water in Hamilton Creek, although some chum have shown up in the Grays River.

The TMT coordinated chum operation from 2018 is posted on the TMT website as a reminder of last year's operation. BPA proposed that the chum operation start no earlier than November 4<sup>th</sup> or 5<sup>th</sup>, to allow enough time for coordinated logistical planning efforts for upstream water release and storage of water at Grand Coulee Dam, and suggested reevaluating chum status next week with updates from NOAA and WDFW. While understanding the need to plan for releases in advance, Salmon Managers voiced concern about the possibility of chum arriving early and the impact of having to wait as spawning often occurs within the first 24-36 hours. Salmon Managers also stressed that decisions on the start of the operation should be driven by biological needs. Sheri Sears, Colville Tribe, expressed concern over refilling Grand Coulee and wanted to avoid drafting water if it compromised refill.

Erick Van Dyke, OR, noted that the operation to mitigate for chum protection is not always possible, due to operational request constraints. Tony clarified that the next few days are less to do with refill and more about near-term reservoir operations in preparation for the start of chum. As chum don't currently have access to typical spawning habitat in the Ives area, there must be an augmented flow release.

Action Agencies acknowledged the concerns voiced by Salmon Managers; however, for planning purposes will assume that the chum operation will start no earlier than November 4<sup>th</sup>. A TMT meeting will be held on October 30<sup>th</sup> to check-in on chum conditions.

### **2020 Water Management Plan**

Doug reported that the 2020 Water Management Plan draft was posted to the TMT website on October 1 and is open for review. He requested that TMT members send their tracked edits and specific changes in Word format to the Action Agencies (Julie Ammann, Doug Baus, Lisa Wright, Scott Bettin, Tony Norris, and Joel Fenolio) by October 31. Comments and edits will be addressed with a second draft posted by November 15, and the final plan will be posted no later than Dec 31, 2019. Tony added that TMT members should continue to look at the Emergency Action Plan and provide suggested edits.

### **Operations Review**

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

- **Libby:** midnight elevation was 2,443.0 feet, with average inflows of 4.9 kcfs and bull trout minimum outflows of 4 kcfs;
- **Albeni Falls:** midnight elevation was 2,055.3 feet, with average inflows of 9 kcfs and outflows of 27.1 kcfs;
- **Dworshak:** midnight elevation was 1,519.4 feet, with average inflows of 3.5 kcfs and minimum outflows of 1.6 kcfs;
- **Lower Granite:** average outflows were 17.2 kcfs;
- **McNary:** average outflows were 82.6 kcfs; and
- **Bonneville:** average outflows were 77.9 kcfs.

Eric Rothwell, BOR, reported on Bureau of Reclamation projects:

- **Hungry Horse:** midnight elevation was 3,548.6 feet, with outflows of 1,300 kcfs; and
- **Grand Coulee:** midnight elevation was 1,284.3 feet, with outflows of 45kcfs and inflows of 60 kcfs.

*Water Quality:* Dan Turner, Corps, reported functioning gauges and low TDG in the system.

*Fish:* Paul Wagner, NOAA, reported on adult fish passage. At Bonneville Dam, fall Chinook passage is coming to an end, with a total of 269,410, or 52% of the 10-year average. Fall Chinook jacks are also at 52% of the 10-year average, steelhead are at 27%, and unclipped steelhead are at 38%. Dave reported that Coho are at 67% of the 10-year average and lamprey are at 58%. He noted that actual lamprey counts are higher than recorded as they continue to pass at night and through other routes of passage.

At Lower Granite Dam, fall Chinook passage is at 42% of the 10-year average, fall Chinook jacks 35%, steelhead 22%, unclipped steelhead 47%, and lamprey passage is 171% of the 10-year average.

Fall Chinook juveniles are reaching the end of the season, with a slight bump in passage at Lower Granite, which is not uncommon this time of year.

*Power System:* Tony Norris, BPA, reported recent mild temperatures, with an incoming high ridge block and cooler temperatures, which will result in low wind numbers.

**The next scheduled TMT meeting is a conference call on October 30, 2019, at 9:00 AM**

*This summary is respectfully submitted by the DS Consulting Facilitation Team. Suggested edits are welcome and can be sent to Colby at [colby@dsconsult.co](mailto:colby@dsconsult.co).*

**Columbia River Regional Forum**  
**Technical Management Team OFFICIAL MINUTES**  
**Wednesday, October 23, 2019**  
**Minutes: Melissa Haskin, FLUX Resources**

**1. Welcome and Introductions**

Today’s TMT meeting was chaired by Doug Baus, Corps, and facilitated by Emily Stranz, DS Consulting. See the end of these minutes for a list of today’s attendees. Copies of documents discussed and meeting minutes are available on the TMT website.

**2. Review Meeting Summaries and Minutes**

Minutes and summaries from the 9/25 TMT meeting were approved with a request from Erick Van Dyke, OR to add additional information to clarify the statement regarding juvenile sampling and the impacts from shad. The SMP report notes that “No salmonids were sampled today possibly due to the low sample rate used, 3%. The low sample rate is necessary to mitigate for large numbers of juvenile shad present in the system.”

**3. Bacterial Kidney Disease – Dave Swank, USFWS**

Dave Swank, USFWS, provided a correction to information he shared at the September 25 TMT meeting. At the meeting, Swank reported that the Pahsimeroi Hatchery juvenile Chinook had high levels of BKD prior to their release, which likely contributed to their low survival to Lower Granite Dam. A TMT member asked Swank if the juveniles could infect each other during transport. Swank replied he did not think it was possible during barge transport. However, after consulting with his colleagues at USFWS, it turns out that it is possible. He says there is no evidence that it happened, but it is possible.

**4. Treaty Fishing**

Kyle Dittmer, CRITFC, reported on treaty fishing. The season this year was 6 weeks total and requested a 1.5-ft forebay operating range during fishing at Bonneville and The Dalles, and a 2-ft operating range at John Day. During the season, BPA and the Corps kept the pools within a 1-ft range 100% of the time at BON and TDA and 99% of the time at JDA (Figure 1).

<b>2019</b>			
<b>1 foot range:</b>	<b>Bonneville Pool</b>	<b>The Dalles Pool</b>	<b>John Day pool</b>
AUG 26 - 28	100%	100%	100%
SEPT 2 - 5	100%	100%	100%
SEPT 9 - 12	96%	100%	99%
SEPT 16 -19	100%	100%	100%
SEPT 23 - 26	100%	100%	100%
OCT 3 - 5	100%	100%	100%
average:	<b>99%</b>	<b>100%</b>	<b>100%</b>
2018 fall season average:	100%	100%	100%
<b>1.5 foot range:</b>	<b>Bonneville Pool</b>	<b>The Dalles Pool</b>	<b>John Day pool</b>
AUG 26 - OCT 5	100%	100%	100%
2018 fall season average:	100%	100%	100%

Figure 1. Excerpt from CRITFC Memorandum “Summary of Pool Operations – 2019 Fall Season Treaty Fishery”.

Scott Bettin, BPA, pointed out that the table uses a 1.5-foot operating range for John Day calculations; however, the allowed operating range is 2 ft.

Thus far, Dittmer does not have official harvest figures but says that harvest was about 50% of normal.

## 5. Chum Operations

Doug Baus, Corps, and Tony Norris, BPA, updated TMT on chum operations. The BiOp calls for chum operations to begin the first week of November and requires Bonneville Dam outflows to provide a sufficient tailwater elevation for chum access to spawning habitat in the Ives/Pierce Island complex. Last year, the operation coordinated was to operate the Bonneville tailwater in the range of 11.5–13 ft. during all hours, with subsequent steps to pass increasing levels of flow.

As of 0700 this morning, Bonneville Dam outflow was 93.3 kcfs with a project tailwater elevation of 8.6 ft.

Inflow forecasts predict relatively high inflow over the next 3 days (~90-100 kcfs); a small drop in inflows from October 27-31 down to 83 kcfs; and then an increase to 103 kcfs (Figure 2).

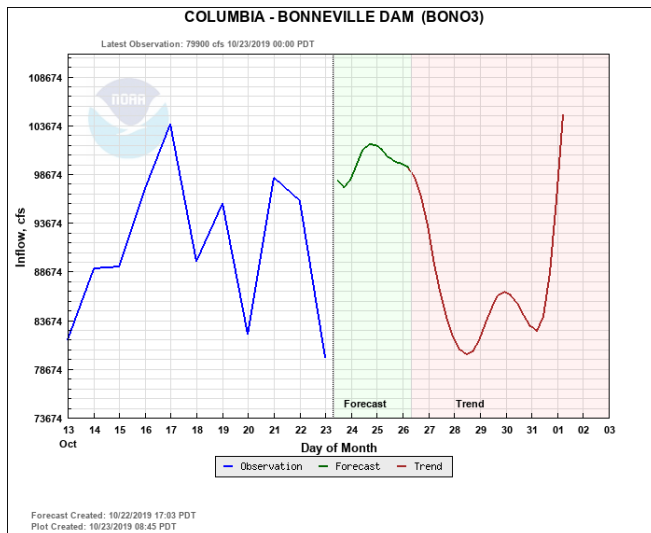


Figure 2. NWRFC observed and forecasted inflow for Bonneville Dam as of October 23.

Over the new 10 days, there should not be a lot of precipitation but the upper portion of the Columbia Basin may receive some noteworthy precipitation on Friday. The freezing level will drop to 3,000 ft. The NWRFC 6-10 and 8-14 day weather forecasts show a probability of below average temperatures and precipitation in the Columbia Basin (Figure 3). It will be cold and dry. The 30-day forecast calls for an equal chance of below or above average temperatures and precipitation.

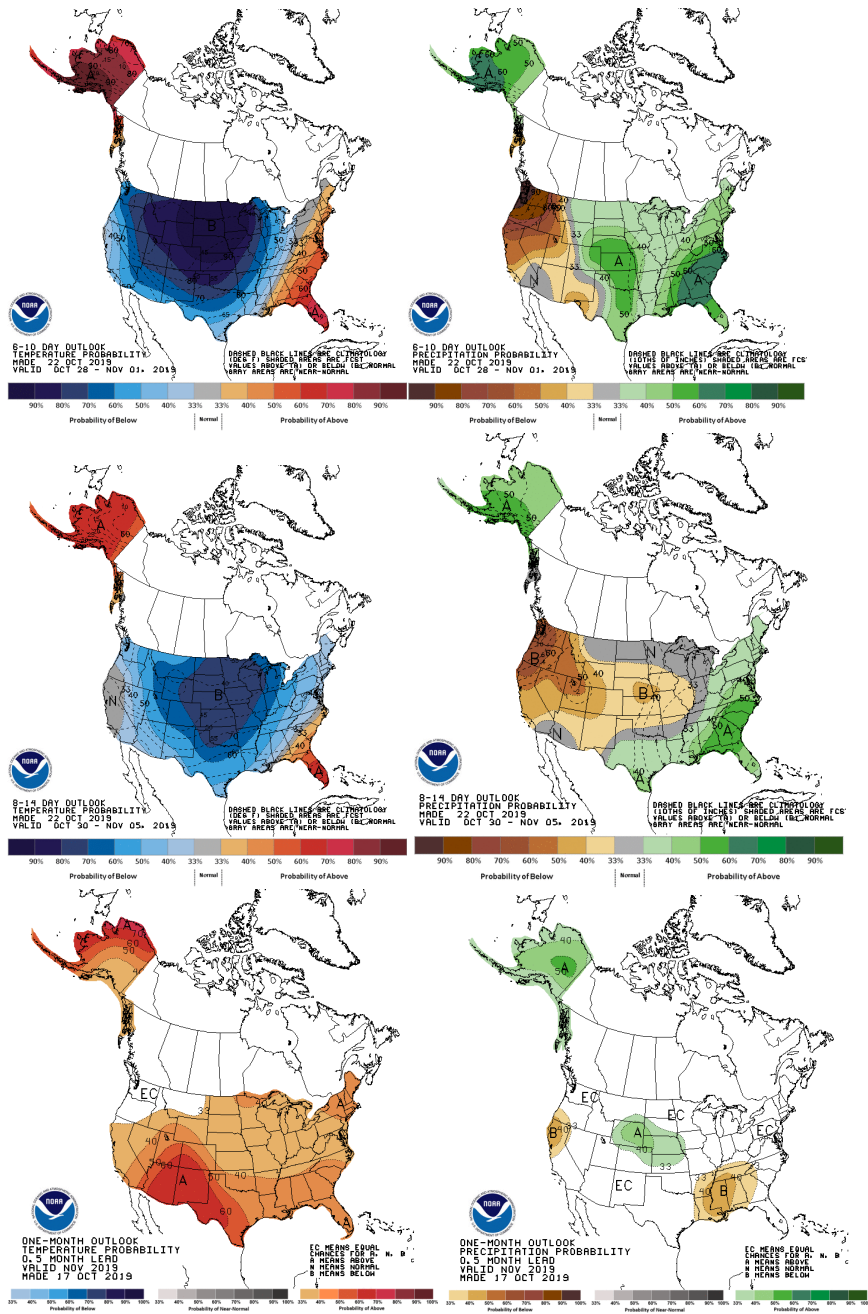


Figure 3: 6-10, 8-14, and 30-day outlook for temperature (left) and precipitation (right) probability.

Hamilton Creek and Hamilton Springs are flowing; however, there is not enough water in the area for chum to be able to reach their spawning habitat. Both were dry until last week.

Typically, the chum operation is supported by:

1. Inflow from the reservoirs, and
2. Local precipitation

Because this was a low water year, there is not enough water in the reservoirs alone to provide chum access to the spawning ground. Thus, the operation needs to be planned for when precipitation is in the area.

Chum typically arrive in the first week of November. Last year they showed up early and the operation began early.

There will be surveys at Hamilton today. No chum have been observed so far at Ives. A total of 5 chum have been counted passing Bonneville Dam, including 2 yesterday and 1 on the 19<sup>th</sup>. The count is typical for this time of year.

At this time of year, TMT typically coordinates the chum operation. The first step is to pick the start date of the operation so that Bonneville and the Corps can coordinate the release of water from upstream storage reservoirs. From a water management position, Norris proposed operations begin no earlier than November 5. Water takes several days to reach Bonneville and committing to starting no earlier than November 5 would allow sufficient time for planning the operation in light of the dry forecast. This is important because there is not enough water in the reservoir to drive the operation from reservoir water alone. November 5 would be the day the water would *arrive* at Bonneville.

Overall, salmon managers agreed that November 5 was a reasonable start date, but they wanted to reserve the right to change their decision and be flexible should chum arrive early. This can be a challenge, Norris responded, because it takes several days to prepare the system, several days for the water to travel, and because changing the operation last minute could be very costly for Bonneville.

Paul Wagner, NOAA, said he did not see an issue with a November 5 start date but that it would be hard to commit to it with absolute certainty. Claire McGrath, NOAA, noted that with surveys occurring today and Friday, it could be a little premature to decide on a date today.

Dave Swank, USFWS, said that he hoped the decision would be driven by fish and therefore would like to wait to see when the fish arrive. He asked for additional days to make the decision.

Charles Morrill, WA, noted that chum spawn within the first 24-36 hours of arrival at Ives so delaying them, even by a few days, could impact spawning.

Erick Van Dyke, OR, said that chum have arrived before November 5 in the past. He said the current decision may not be well informed since there are other surveys in the Columbia not being considered. He was hesitant to agree to a November 5 start date. He also expressed long-term concerns over operating for flood control and refill. However, the immediate decision is not about refill so much as water management in the next 3 days to operate and prepare the system for chum.

Sheri Sears, Colville Tribe, also noted long-term concerns saying that she did not want to be in a position like last year when Coulee was 30 ft. below flood control elevation.

Jay Hesse, Nez Perce, asked if Chinook were part of chum operation decisions. Paul Wagner, NOAA, noted that since the Chinook typically spawn deeper and are not as picky about their spawning grounds, they have a lot more options than chum, even in low flow conditions.

Hearing salmon managers objections to committing 100% to November 5, Norris asked if November 4 would be a better start date, expressing that BPA needs time to prepare the reservoir and hydrosystem, especially while recovering from a dry fall and low Coulee inflow. He said that the next few days are critical. He added that BPA is targeting this date because of the forecast, which calls for dry weather. However, salmon managers could not 100% agree on November 4, either.

Waiting until next week to make a decision would be a problem, Norris said. He said that BPA hears the salmon managers concerns and will plan to start chum operations no earlier than November 4, recognizing that there may be a request to start sooner if chum show up.

**There will be an unscheduled TMT call next Wednesday, October 30 to check in on the matter.**

## 6. Draft 2020 Water Management Plan

Doug Baus, Corps, reported on the schedule for the draft 2020 Water Management Plan. The first draft is posted to the TMT website. Comments are due by October 31. Those wishing to submit edits should use the Track Changes option in Word and email the document to Joel Fenolio (Reclamation), Scott Bettin and Tony Norris (BPA), Doug Baus, Lisa Wright, and Julie Ammann (Corps). The Corps will compile these edits and comments and post a second draft of the plan by November 18. The final document will be posted no later than December 31, 2019.

Norris reminded TMT that this is a good time for folks to submit changes to the Emergency Action Plan, which is Appendix 1 of the Water Management Plan. The plan may need to be updated now that flex spill operations are in place. These updates would need to be finalized before spill starts next April.

## 7. Operations Review

### 7a. Reservoirs – Eric Rothwell, Reclamation, and Lisa Wright, Corps

**Hungry Horse** – Midnight elevation was 3,548.6 ft and outflows yesterday were 1,300 cfs.

**Grand Coulee** – Midnight elevation was 1284.3 ft and outflows yesterday were about 62 kcfs.

**Libby Dam** – Midnight elevation 2,443.0 ft., yesterday’s average inflows were 4.9 kcfs and outflows were 4 kcfs (the bull trout minimum).

**Albeni Falls** – Midnight elevation 2,055.3 ft., yesterday’s average inflows were 9 kcfs and outflows were 27.1 kcfs.

**Dworshak Dam** – Midnight elevation 1,519.4 ft., yesterday’s average inflows were 3.5 kcfs and outflows were 1.6 kcfs.

**Lower Granite** – Yesterday’s average outflows were 17.2 kcfs.

**McNary Dam** – Yesterday’s average outflows were 82.6 kcfs.

**Bonneville** – Yesterday’s average outflows were 77.9 kcfs.

### 7b. Water Quality – Dan Turner, Corps

All gauges are working and TDG is below 110% at all gauges.

### 7c. Fish – Paul Wagner, NOAA

#### Adults:

Species	Daily Count	YTD	% of 10-Yr Avg	Notes
<b>Bonneville</b>				
Fall Chinook Adults	Few hundred	269,410	52%	The end of the season is approaching.
Fall Chinook Jacks		43,703	52%	Fall Chinook don’t track as closely with jack counts but it’s still an indicator that abundance is on the low end.
Steelhead (all)		76,066	27%	
Steelhead (Unclipped)		36,778	38%	

Species	Daily Count	YTD	% of 10-Yr Avg	Notes
Coho		65,724	67%	Twice as many as this time last year but less than what was forecasted for this year.
Lamprey		19,377	58%	45% of this time last year. Total counts are actually much higher, closer to 70,000, including night video counts and passage via LPSs.
<b>Lower Granite</b>				
Fall Chinook Adults		15,136	42%	
Fall Chinook Jacks		5,738	35%	
Steelhead (all)		28,996	22%	
Steelhead (Unclipped)		10,246	47%	
Lamprey		94	171%	45% of this time last year. The 10-year avg is influenced by years of very low abundance so not as good of an indicator.

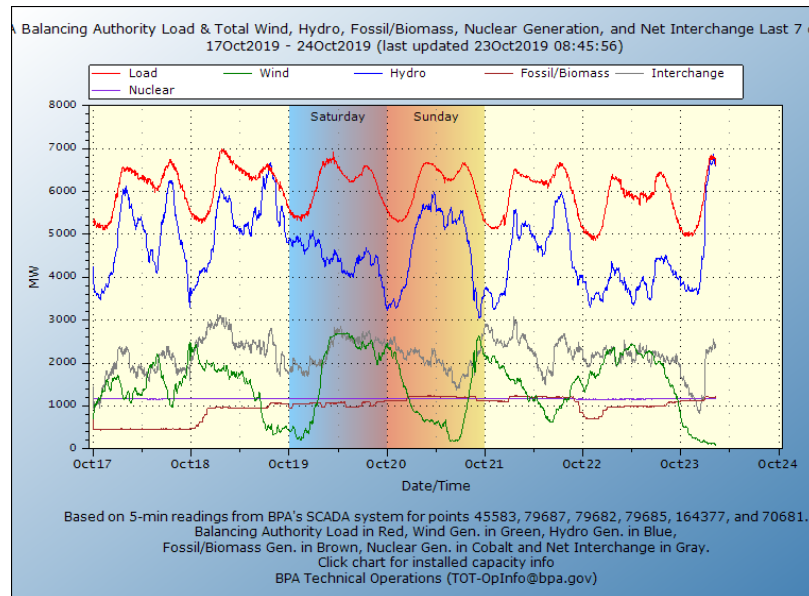
\*This table is a combination of data available on the FPC website, as discussed by Paul Wagner, NOAA, and Dave Swank, USFWS.

Swank reported that adult lamprey are reaching the end of their season. There is an ongoing discussion on how to count and report lamprey considering the reported count doesn't include night video and passage via the LPSs, but changing the count methods now would affect data interpretation and comparison with past years.

**Juveniles:** Fall Chinook subyearlings are nearing the end of their season. Sampling will end at all of the projects on October 31. At Lower Granite, there was a small bump, which can be observed this time of the year. Counts over the last few days jumped from less than 100 per day to several hundred per day.

**7d. Power – Tony Norris, BPA**

Temperatures have been mild and a high ridge block is in the forecast, which means there will be little wind.



**7e. Other**

Dave Swank, USFWS, has been appointed the new FPAC Chair, to replace the retiring Paul Wagner, NOAA.

**8. Next TMT**

The next meeting is an unscheduled conference call on October 30, 2019.

**Today's Attendees:**

<b>Agency</b>	<b>TMT Representative</b>
Army Corps of Engineers	Doug Baus (Chair), Lisa Wright
Bonneville Power Administration	Tony Norris, Scott Bettin
Bureau of Reclamation	Eric Rothwell
NOAA Fisheries	Paul Wagner, Claire McGrath
US Fish & Wildlife Service	Dave Swank
Washington	Charles Morrill
Oregon	Erick Van Dyke
Idaho	N/A
Montana	Jim Litchfield
Nez Perce Tribe	Jay Hesse
Umatilla Tribe/CRITFC	N/A
Colville Tribe	Sheri Sears
Warm Springs Tribe	N/A
Kootenai Tribe	N/A
Spokane Tribe	N/A

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

Army Corps of Engineers – Jon Roberts, Steve Hall, Dan Turner, Alexis Mills, Aaron Marshall,  
DS Consulting – Emily Stranz (Facilitator), Colby Mills  
FLUX Resources – Melissa Haskin (Note taker)  
Columbia Basin Bulletin – Mike O’Bryant  
Portland General Electric – Ruth Burris  
CRITFC – Kyle Dittmer