

## COLUMBIA RIVER TECHNICAL MANAGEMENT TEAM

October 17, 2018

Facilitator's Summary

Facilitator: Emily Stranz; Notes: Nancy Pionk, 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.nwd-wc.usace.army.mil/tmt/agendas/2018/>*

### Meeting Minutes and Facilitator's Summary

The group approved the official TMT minutes and meeting summaries for the September 19, 2018, and October 3, 2018, meetings without additional modification.

### Chum Operation

Doug Baus, Corps, reviewed the upcoming chum operations with the TMT. Chum operations are expected to start the first week of November (by November 7), or when chum arrive, per the BiOp. Doug noted that the Corps expects to operate similar to the 2017 chum operation (see agenda link). Scott Bettin, BPA, indicated that BPA will continue to observe the situation and if the chum run begins early or the amount of precipitation warrants, BPA will begin to feather in the operation earlier; however, this was thought to be unlikely due to the forecast for lower flows.

The extended 10-day weather forecasts are indicating above average temperatures and above average precipitation; however, the RFC Bonneville Dam inflow forecast anticipates that there will continue to be low inflows, ranging from 84 kcfs to 94 kcfs over the next 10-day period. That being said, a rain event is expected next week west of the Cascades. Tony Norris, BPA, cautioned that this is not expected to be a significant enough weather event to put extra water in the system and warrant an early start to the chum operation. Looking further out, the 30-day climate forecast shows equal chances of below or above average temperatures for Oregon and Washington and below average temperatures for Montana and Idaho. The 30-day outlook on precipitation shows below average precipitation for Oregon and Washington and equal chances of below or above average temperatures for Montana and Idaho.

Paul Wagner, NOAA, indicated that the proposed operation looked sufficient from the Fish Managers perspective. The latest spawning survey data posted to the FPC website showed low numbers of fall Chinook (25 as of 9/17) and zero chum. It was noted that WDFW will be providing observations from I-205 up to Ives Island and that better information regarding chum counts should be available within two weeks. The TMT will continue conversations on the chum operation at their meeting on 10/31.

### Operations Review

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

- Hungry Horse: maintaining elevation of 3,500 feet, with forebay elevation of 3,547 feet and 2.3 kcfs of outflow.
- Grand Coulee: maintaining elevation of 1,283 feet through mid-November and passing inflow to maintain this elevation.

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

- Libby: midnight elevation was 2,441.9 feet, with average inflows and outflows of 4 kcfs;
- Albeni Falls: midnight elevation was 2,057.3 feet, with average inflows at 15 kcfs and outflows of 25.1 kcfs;

- Dworshak: midnight elevation was 1,517.8 feet, with average inflows at 0.8 kcfs and outflows of 1.7 kcfs;
- Lower Granite: average outflows were 18 kcfs;
- McNary: average outflow was 85.7 kcfs; and,
- Bonneville: average outflow was 94.5 kcfs.

**Water Quality:** Dan Turner, Corps, reported that TDG generally, is low, as is expected this time of year. He invited TMT members to attend the annual TDG monitoring meeting on December 4, 2018, where the TDG gauges and TDG monitoring network will be reviewed. TMT members were encouraged to attend in person and bring their questions regarding TDG monitoring. Meeting details will be provided to TMT members.

➤ **ACTION: the Corps will send TDG meeting details to TMT members.**

**Fish:** Paul Wagner, NOAA, reported on fish. He provided the following adult passage data:

Bonneville	Year-to-date counts	of 10-year average	Ice Harbor	Year-to-date counts	of 10-year average
Fall Chinook adults	181,014	34%	Fall Chinook adults	16,036	40%
Fall Chinook jacks	31,598	38%	Fall Chinook jacks	4,181	25%
Steelhead	100,639	33%	Steelhead	40,320	28%
Unclipped/wild steelhead	32,556	32%	Unclipped/wild steelhead	8,718	23%
Lamprey	43,444	140%			

Paul noted that lamprey had a very good year and are well above the 10-year average at all projects. He noted that sockeye, also did well overall. Russ Kiefer, ID, reported that 113 sockeye were trapped in the Salmon River Basin; 13 of the trapped fish were wild/natural fish.

Juvenile Passage data: Paul reported that the subyearling Chinook are winding down; as of 10/10/18, 824 were observed at Lower Granite and low numbers were also observed at Little Goose and Bonneville.

**Power System:** Tony Norris, BPA, reported that there has not been much wind lately due to a high pressure system. Temperatures and stream flows have also been low, as has the energy load.

**The next TMT meeting is a conference call on October 31, 2018, at 9:00 AM.**

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

**Columbia River Regional Forum**

**TECHNICAL MANAGEMENT TEAM OFFICIAL MINUTES**

**October 17, 2018**

**Minutes: Melissa Haskin, FLUX Resources**

**1. Introduction**

Representatives of NOAA, Corps, MT, OR, ID, Umatilla/CRITFC, Warm Springs Tribe, Colville Tribe, BPA, Reclamation, and others participated in today’s TMT meeting chaired by Doug Baus, Corps, and facilitated by Emily Stranz, DS Consulting. See the end of these minutes for a list of attendees.

**2. Meeting Minutes**

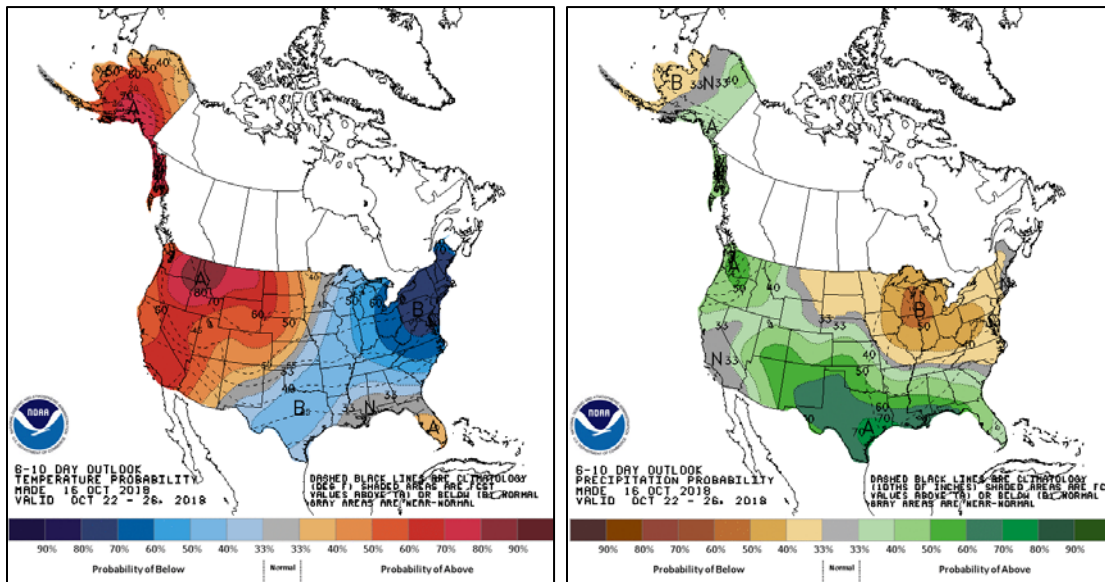
The meeting minutes and summaries for September 19 and October 3 were finalized.

**3. Chum Operations**

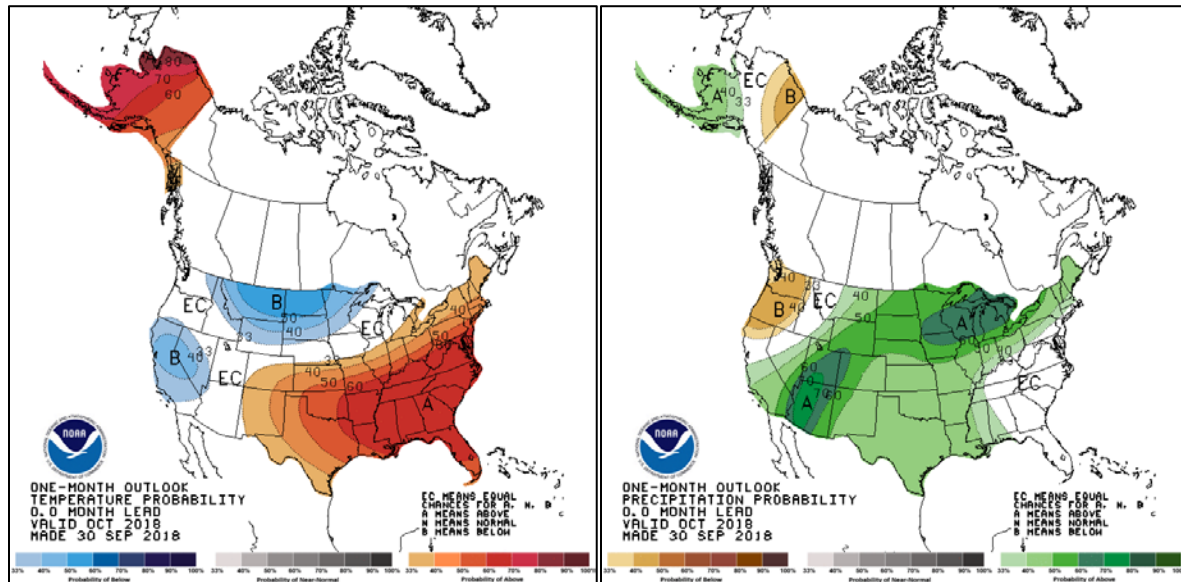
Doug Baus, Corps, updated TMT on Chum Operations. Per the BiOp, Chum Operations begin the first week in November or when Chum arrive.

At Bonneville, current outflows are 83.7 kcfs at 0700 this morning. The tailrace elevation is 7.2 feet. The forecast shows low inflows of up to 94 kcfs over the next few days. There is not a lot of water in the forecast.

The NWRFC weather forecast shows above average temperatures and precipitation both in the 6-10-day forecast (see figures below) and the 8-14-day forecast.



The following is the NWRFC September 2018 monthly precipitation summary. Additionally, the NWRFC one month outlook below shows a probability of below average precipitation in Washington and Oregon and equal chance of above or below average precipitation in Idaho and Northwestern Montana. Regarding the 30-day outlook for temperatures there is an equal chance of above or below temperatures in Washington and Oregon while Northeastern Idaho and Northwestern Montana are indicating a probability of below average temperatures.



The 10-day forecast shows dry weather until next Tuesday with precipitation west of the Cascades predicted for that day. Rain is expected to be minimal, in the 0.5-1.0 inch range.

He shared that last year's Chum Operation began November 7 and during all hours project outflows were operating at a tailwater elevation range of 11.5-13 ft. He asked salmon managers if they would like to make changes to the operation from last year, which is as follows:

1. EFFECTIVE TUESDAY, NOVEMBER 7, AT 0600 HOURS, OPERATE THE BONNEVILLE DAM TAILWATER IN THE FOLLOWING ORDER OF OPERATING RANGES AS PROJECT OUTFLOW INCREASES.
2. DURING ALL HOURS, OPERATE PROJECT OUTFLOW TO PROVIDE A TAILWATER ELEVATION IN THE RANGE OF 11.5-13.0 FEET.
3. THEN, IF NECESSARY TO INCREASE PROJECT OUTFLOW, THE TAILWATER MAY BE OPERATED UP TO 16.5 FEET DURING NIGHTTIME HOURS (1700-0600). CONCENTRATE HIGHEST ELEVATIONS AROUND 2400 HOURS.
4. THEN, IF NECESSARY TO INCREASE PROJECT OUTFLOW, THE TAILWATER MAY BE OPERATED UP TO 18.5 FEET DURING NIGHTTIME HOURS (1700-0600).

5. THEN, IF INCREASING RIVER FLOW PRECLUDES THE ABILITY TO MANAGE TAILWATER WITHIN THE STEPS ABOVE, OPERATE TO PROVIDE A TAILWATER IN THE RANGE OF 13.0-16.5 FEET DURING DAYTIME HOURS (0600-1700) AND UP TO THE MAXIMUM WITHIN PROJECT 24-HOUR RAMP RATE LIMITS DURING NIGHTTIME HOURS (1700-0600).

There were no objections from Salmon Managers. Russ Kiefer, ID, reported that it is still a little early to decide on a chum operation and FPAC will meet in two weeks, after which hopefully there will be more information. A TMT is scheduled for October 31 to discuss chum operations.

#### **4. Operations Review**

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

Hungry Horse is operating at Columbia Falls minimums (3,550 cfs). Current elevations are 3,547 ft, releasing 2,300 cfs.

Grand Coulee: maintaining 1,283 ft through the middle of November, passing inflow right now.

Libby: midnight elevation 2,441.9, inflows and outflows of 4 kcfs.

Albeni Falls: 2,057.3 ft, inflows of 15 kcfs, outflows of 25.1 kcfs.

Dworshak: midnight elevation of 1,517.8 ft., inflows of 0.8 kcfs, outflows of 1.7 kcfs.

Lower Granite: outflows of 18 kcfs.

McNary: outflows of 85.7 kcfs.

Bonneville: outflows of 94.5 kcfs.

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

TDG is low. Turner notified TMT that the Corps is holding its annual TDG monitoring meeting on December 4, 2018. Those with TDG questions are invited to join the meeting.

Turner also noted that the Bonneville tailrace gauge at Cascades Island has been pulled from service and Warrendale is the gauge being used at Bonneville.

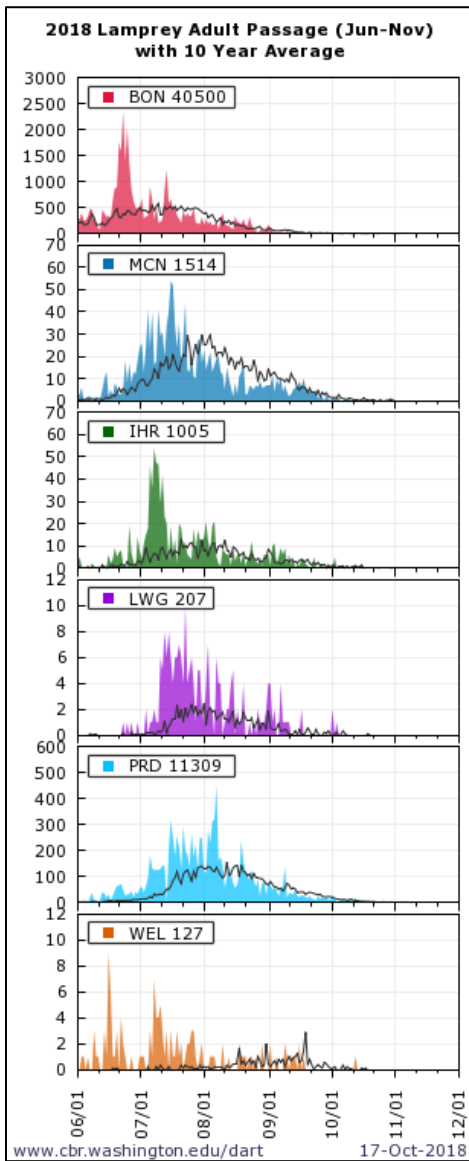
##### ***c. Fish – Paul Wagner, NOAA***

###### Adults:

Fall Chinook are winding down, less than 500 are passing per day at Bonneville, with 147 passing yesterday. The total for the year at Bonneville was 181,014 fall adult Chinook (34% of the 10-year average), fall Chinook jacks were 31,598 (38% of the 10-year average), and steelhead were 390 for the week, with 194 passing yesterday and 100,639 for the season (33% of the 10-year average). Of those, 32,556 (32%) were unclipped.

At Ice Harbor: fall Chinook adult counts are 16,036 (40% of the 10-year average); jacks 4,181 (25% of the 10-year average); steelhead 40,320 or 28% of the 10-year average (unclipped 8,718, which is 23% of the 10-year).

Russ Kiefer, ID, noted that lamprey did well this year (see figure below). Wagner noted they were 140-ish% of the 10-year average at 43,444 (Bettin noted this is only the daytime ladder count – the actual count is much higher).



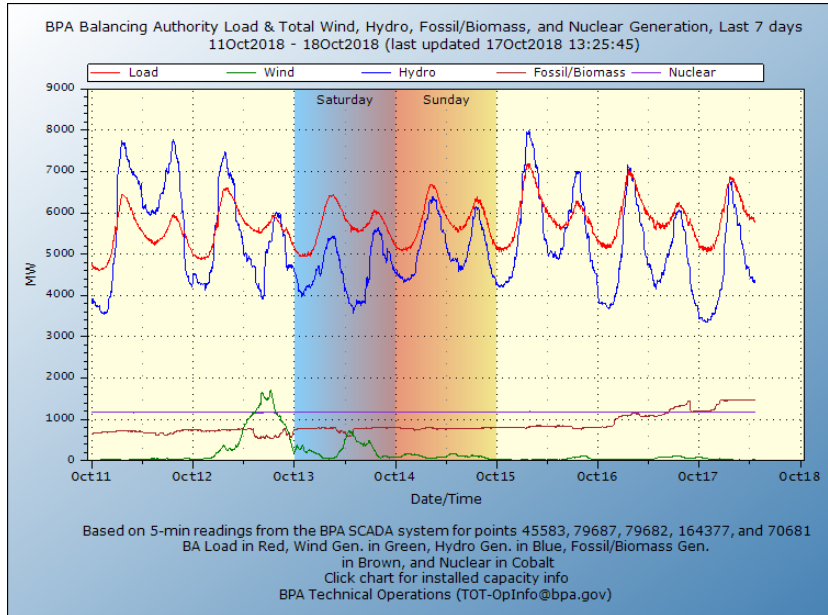
Kiefer reported that the final total for the season of trapped Sockeye in basin was 113, of which 13 were natural.

Juveniles:

Action is winding down with subyearlings. Lower Granite saw decreased counts at the beginning of the month but an increase in the middle of the month. These typically go back down. Little Goose and Bonneville saw decreasing numbers that did not increase.

**d. Power**

Tony Norris, BPA, reported that with a high pressure system in play, there is not much wind. Temperatures are mild so loads are lower as are streamflows and hydropower generation.



**6. Next TMT.** The next TMT meeting is conference call to discuss Chum operations on October 31, 2018, at 9 a.m.

**Today’s Attendees:**

**TMT Members:**

<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	Joel Fenolio
NOAA Fisheries	Paul Wagner
US Fish & Wildlife Service	N/A
Washington	N/A
Oregon	Erick Van Dyke
Idaho	Russ Kiefer
Montana	Jim Litchfield
Nez Perce Tribe	N/A
Umatilla Tribe	Tom Lorz (CRITFC)

<b>AGENCY</b>	<b>TMT Representative</b>
Colville Tribe	Sheri Sears
Warm Springs Tribe	Jen Graham
Kootenai Tribe	N/A
Spokane Tribe	N/A

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

Corps – Steve Hall, Dan Turner, Aaron Marshall, Michelle Sanders, Michelle Yuen,  
Laura Hamilton, Chris Peery

Clearing Up – K.C. Mehaffey

DS Consulting – Emily Stranz (Facilitator), Nancy Pionk

FLUX Resources – Melissa Haskin (Notetaker)