

COLUMBIA RIVER TECHNICAL MANAGEMENT TEAM

October 3, 2018

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.nwd-wc.usace.army.mil/tmt/agendas/2018/>

Treaty Fishing

Kyle Dittmer, CRITFC, provided an update on Treaty fishing. CRITFC, on behalf of its represented tribes, has requested an extension on the Treaty fishing, between the periods of 6:00am on Wednesday October 3, and 6pm on Saturday October 6. Aaron Marshall, Corps, noted that the Corps received the extension request yesterday afternoon, the operation has been coordinated with BPA and the projects, and is being implemented. Kyle noted that CRITFC will sponsor one final net flight either today or tomorrow.

Chum Operation

Doug Baus, Corps, updated the TMT on upcoming chum operations. Chum operations start the first week in November, or when chum arrive, per the BiOp.

Current operations data show Bonneville Dam project outflows are 76.1 kcfs, with a project tailwater elevation of 8 feet. The RFC Bonneville Dam Inflow Forecast anticipates that there will continue to be low inflows, ranging from 80 kcfs to 100 kcfs over the next 10-day period. Tony Norris, BPA, reported that the NWRFC Climate Forecast 30-day outlook shows above-average temperatures and below-average precipitation for the basin. It’s looking like a dry October following a dry September; more rain is needed to contribute to flow, otherwise a significant amount of flow augmentation will be required to maintain a chum tailwater elevation in the beginning of the season.

The Corps and BPA are planning for Chum operations to start similar to last year, with an 11.5 - 13 feet elevation range. The Action Agencies will monitor conditions and manage the water accordingly.

- An unscheduled TMT call is tentatively planned for October 31, to check-in on the chum operation.

2018 Juvenile Fish Survival Estimates

Paul Wagner, NOAA, provided preliminary fish survival estimates produced by the NWFSC, which will be followed by an extensive report in February 2019. The preliminary report summarizes conditions in the Snake and Columbia Rivers and preliminary estimates of survival of PIT-tagged juvenile salmonids passing through reservoirs and dams during the 2018 spring outmigration. The estimate of hatchery fish survival from release to Lower Granite Dam is on average 65.1%, compared with 65% survival average over the 20 years of data collection.

For yearling Chinook (hatchery and wild combined), 2018 survival numbers through the Snake River and Lower Columbia River are overall below averages.

	2018 Average Survival	20-Year Average
Snake River Trap to Lower Granite	88%	93%
Lower Granite to McNary	73%	73%
McNary to Bonneville	59%	69.5%
Lower Granite to Bonneville	43%	52%

Snake River Trap to Bonneville	38%	48.9%
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For steelhead (hatchery and wild combined), 2018 survival numbers through the Snake River and Lower Columbia River are overall above average. Paul noted that confidence intervals for the steelhead are wider.

	2018 Average Survival	20-Year Average
Snake River Trap to Lower Granite	98%	95%
Lower Granite to McNary	73.3%	66%
McNary to Bonneville	72%	67%
Lower Granite to Bonneville	53%	47%
Snake River Trap to Bonneville	52%	45%

For hatchery yearling Chinook and steelhead, 2018 survival numbers originating from the upper Columbia River showed steelhead again fairing better than spring Chinook; with steelhead well above average and Chinook below average.

McNary Dam to Bonneville Dam	2018 Average Survival	20-Year Average
Yearling Chinook	74.9%	81%
Steelhead	116%	77%

For sockeye (hatchery and wild combined), 2018 survival numbers originating from the Snake River and upper Columbia River are overall above average.

	2018 Average Survival	20-Year Average
Snake River: LG to BON	64%	40%
Upper Columbia River: RIS to BON	66%	51%

The hatchery fish survival estimate for Snake River yearling Chinook from release to Lower Granite dam was 65% with a tight confidence interval, which is within the average survival range. Same held true for Snake River yearling Chinook survival for Lower Granite Dam to McNary Dam. Steelhead survival estimates from Lower Granite to McNary had tight confidence intervals and had above average survival. Looking at McNary to Bonneville, yearling Chinook estimates also had tight confidence intervals, whereas steelhead had wider confidence intervals.

Paul emphasized that it was a big flow year. Little Goose had well above-average flow, with close to average temperatures. Spill, and spill as a percent of flow, was above average for the Snake and Columbia Rivers.

The transport percentage of yearling Chinook and steelhead (hatchery and wild combined) to Bonneville was higher than recent years, with 45% on average for Chinook and 46% for steelhead. It was noted that transport began earlier this year, on April 23 for all projects. Travel time was fast, with both spill and flow acting as contributors. The result was smolt travel time from Lower Granite to Bonneville in less than 10 days.

Jim Litchfield, Montana, raised the issue of observing countervailing outcomes for Chinook and steelhead, despite having good environmental conditions. He questioned what could be learned from the data, and asked to bring this issue up at TMT YER.

2019 Draft Water Management Plan

Doug Baus, Corps, reported that the first draft of the 2019 Water Management Plan has been posted on the TMT website. He noted that the first round of comments should be sent to Doug, Tony, Scott, and

Joel by October 31. The first round of comments will be posted on the website, addressed and integrated as best possible, and then a 2nd draft of the plan will be posted on November 14. The final will be posted no later than December 31. Doug indicated if the issuance of a new BiOp requires a change to the 2019 WMP the Action Agencies will update the WMP as necessary and coordinate with the TMT.

- For TMT members' convenience, a version of the first draft 2019 WMP is posted on the 10/3 TMT agenda with tracked changes from the 2018 WMP.
- TMT members will provide edits to the draft Water Management Plan by October 31st.

**The next TMT meeting is face-to-face on October 17, 2018, at 9:00 AM.
A process meeting will follow for TMT members.**

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.

Columbia River Regional Forum
TECHNICAL MANAGEMENT TEAM OFFICIAL MINUTES
October 3, 2018
Minutes: Melissa Haskin, FLUX Resources

1. Introduction

Representatives of NOAA, Corps, MT, OR, WA, Nez Perce Tribe, Colville Tribe, Umatilla/CRITFC, BPA, USFWS 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. Extension of Treaty Fishing

Kyle Dittmer, CRITFC, updated TMT members on treaty fishing. The tribes have requested additional treating fishing from 6 AM Wednesday, October 3 to 6 PM Saturday, October 6. Dittmer expects this will be the last request for the season.

Aaron Marshall, Corps, responded that the Corps received the request yesterday and coordinated with BPA to implement the request.

CRITFC will likely sponsor another net flight today or tomorrow. He estimates more than 500 nets are still in the water.

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 76.1 kcfs. The tailrace elevation is 8 feet. The forecast shows low inflows of 80-100 kcfs over the next 10 days.

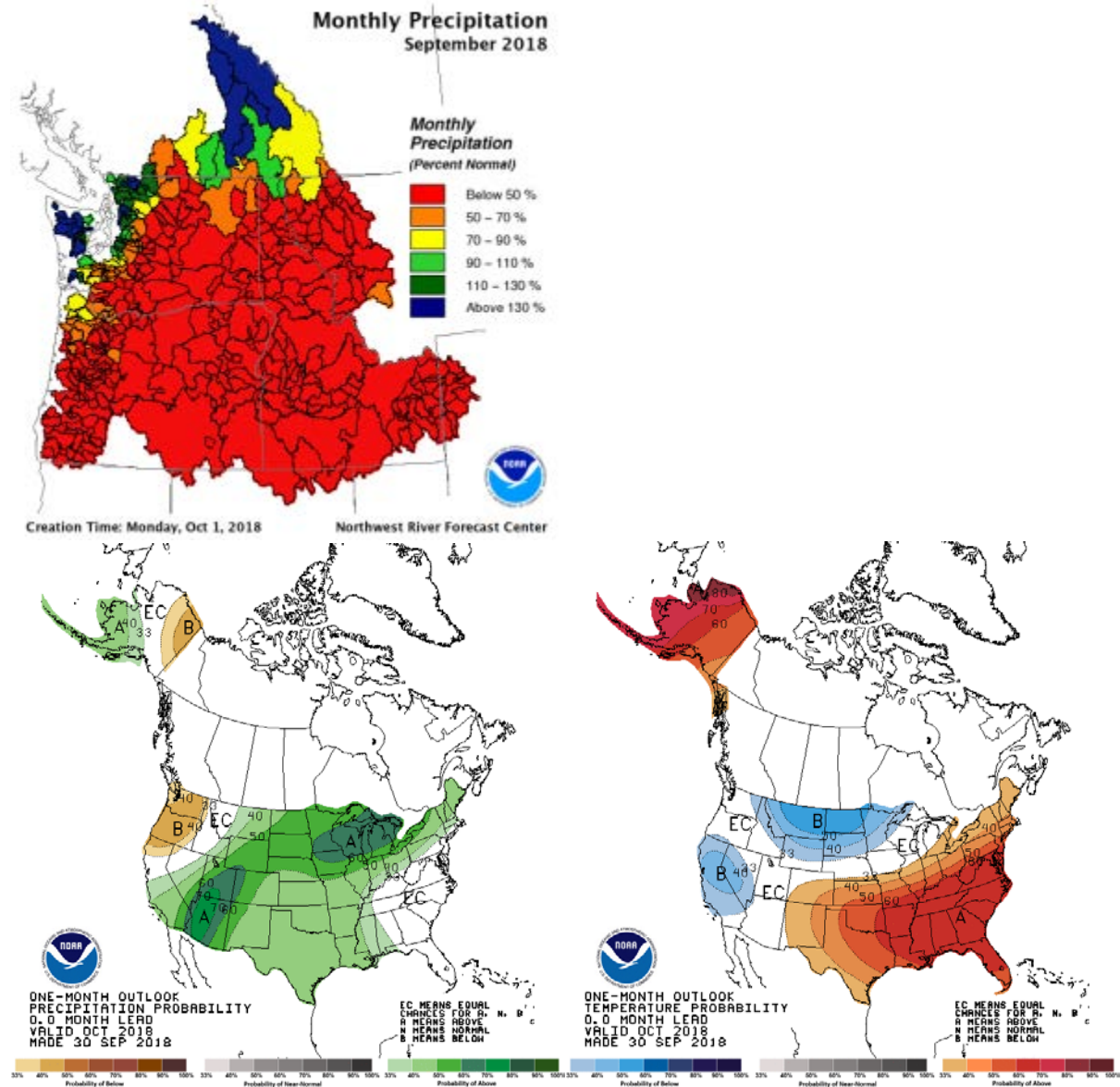
Tony Norris, BPA, reported that the NOAA RFC Climate Forecast 30 day outlook, predicts below average precipitation and climatology for temperatures. Considering that chum key on the upwelling of water to begin spawning significant rainfall is needed to overcome the soil moisture deficit from September to get Hamilton Creek and Springs running. If there is not a change in weather between now and November 7, significant flow augmentation volumes might be required for to meet the chum operation.

Norris reported that is has been a while since there has been a dry fall like this. He said Chum operations will most likely be similar to last year, with an operating range of 11.5 feet to 13 feet.

The action agencies elected to add an unscheduled TMT for October 31, 2018 to discuss Chum Operations. It will be added to the TMT schedule online.

The following is the NWRFC September 2018 monthly precipitation summary that indicates precipitation was below 50% throughout the majority of the Columbia Basin.

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 following is last year’s TMT coordinated chum operation. The plan is to implement the same operation this year.

November 1, 2017, TMT Meeting
TMT Coordinated Chum Operation

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).

4. Juvenile Fish:

Preliminary survival estimates in Spring produced by, more extensive report in February to follow.

Paul Wagner, NOAA, shared a preliminary report from the Northwest Fishery Science Center. The report covers average juvenile survival rates for 2018 and compares these figures to almost 20 years of data. Wagner highlighted a few numbers from the report:

Snake River yearling Chinook salmon:

Location	2018 % survival	1997-2018 average
Trap-LGR	88%	93%
LGR-MCN	73.3%	73.8%
MCN-BON	59%	69.5%
LGR-BON	43.2%	52.1%
Trap-BON	38.1%	48.9%

The combined yearling Chinook salmon survival estimate from the Snake River trap to Bonneville Dam tailrace was 38.1% (31.6-44.6%), substantially below the long-term average of 48.9%.

Snake River Steelhead

Location	2018% survival	1997-2018 average
Trap-Little Granite	98.3%	95.2%
LGR-MCN	73.3%	66%
MCN-BON	72.7%	67.7%
LGR-BON	53.3%	47%
Trap-BON	52.4%	45.6%

The combined Snake River steelhead survival estimate from the Snake River trap to Bonneville Dam tailrace was 52.4% (35.8-69.0%), which was above the long-term average of 45.6% (Table 5).

Estimated survival through reaches of the lower Columbia River hydropower system for hatchery for yearling Chinook salmon and steelhead originating in the upper Columbia River.

Type	Location	% 2018 survival	% 1997-2018 survival
Yearling Chinook Salmon	MCN-BON	74.9%	81.4%
Steelhead	MCN-BON	116.1%	77.4%

Estimated survival for sockeye salmon (hatchery and wild combined) from Lower Granite Dam tailrace to Bonneville Dam tailrace.

Type	Location	% survival 2018	% survival 1997-2018
Snake River Sockeye	LGR-BON	64.3%	40.6%
Upper Columbia River Sockeye	RIS-BON	66.7%	51.1%

Smolt timing was not terribly early and transport percentages were higher than years past.

Jim Litchfield, MT, was a little puzzled because this year should have been a high survival year for both Chinook and steelhead. The environmental conditions of high flow, high spill, and average temperatures would indicate high survival, he said. However, survival for steelhead was above average and Chinook were below average. He asked if this could be explored in the year-end review.

5. 2019 Draft Water Management Plan

Doug Baus, Corps-NWW, updated TMT on the 2019 Draft Water Management Plan. The first draft is posted on the TMT website. Baus noted that the Corps will ask for comments on Draft 1 and that feedback be sent by October 31. He asked that all action agencies be cc-d in all

comments. The Corps will post a second draft by November 14, 2018 and have the final posted no later than December 31.

6. Next TMT. The next TMT meeting is in-person at the Corps on October 17, 2018, at 9 a.m.

Today’s Attendees:

<u>TMT Members:</u>	
AGENCY	TMT Representative
Army Corps of Engineers	Doug Baus (Chair), Lisa Wright
Bonneville Power Administration	Tony Norris, Scott Bettin
Bureau of Reclamation	Chris Runyon
NOAA Fisheries	Paul Wagner
US Fish & Wildlife Service	Dave Swank
Washington	Charles Morrill
Oregon	Erick Van Dyke
Idaho	Russ Kiefer
Montana	Jim Litchfield
Nez Perce Tribe	Jay Hesse
Umatilla Tribe	Tom Lorz (CRITFC)
Colville Tribe	Sheri Sears
Warm Springs Tribe	Jen Graham
Kootenai Tribe	N/A
Spokane Tribe	N/A

Other Attendees (non-TMT members):

- DS Consulting – Emily Stranz (Facilitator), Colby Mills
- FLUX Resources – Melissa Haskin (Notetaker)
- Corps – Steve Hall, Dan Turner, Aaron Marshall
- CRITFC – Kyle Dittmer
- Fish Passage Center – Erin Cooper
- PGE – Ruth Burris
- Columbia Basin Bulletin – Mike O’Bryant
- Clearing Up – K.C. Mehaffey
- Castleton Commodities – Yvonne Hart and Josie Thompson