

COLUMBIA RIVER TECHNICAL MANAGEMENT TEAM

November 21, 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/>

Chum Operation

Lisa Wright, Corps, updated the TMT on the chum operation, which started on November 2. Bonneville Dam project tailwater elevations have been between 11.3 – 13.0ft during all hours as coordinated with TMT at the November 13th meeting. Bonneville project tailwater has been fluctuating between 11.3-11.8ft, and has been in that range over the past several days.

Paul Wagner, NOAA, reported that 93 chum were observed on November 1, and 13 on November 13, with very few redds sighted. Charlie Morrill, WDFW, noted that 100 chum were observed during this week's survey, and so far 8,000 Chinook have been observed this season. There were 5,000 Chinook estimated yesterday with the majority of those being natural origin/wild, upriver brights. A total of 90 chum have passed Bonneville.

Tony Norris, BPA, presented photographs from the field around Ives Island, from both November 9 & 16. He noted that Hamilton Creek has gone dry upstream of the confluence with Hamilton Springs. Hamilton Creek is flowing downstream of the confluence with flow from Hamilton Springs. The areas of upwelling in the Ives Pocket area were flowing on November 9th but have since dried up by November 16th. The forecasted wave of rain is expected to recharge Hamilton Creek.

Lisa reported that Bonneville inflows are forecast to drop from 130 to 125kcfs for the next 10-day period. Climate forecasts show rain and freezing level drop over next 3 days, with a dry weekend and then a higher freezing level and rain early next week. Forecasts show above average temperatures and above average precipitation over the next 6-10 days and 8-14 days. Looking ahead, the 30-day (and 90-day) outlook has warmer than average temperatures and likely normal precipitation. In addition, the Willamette flow forecasts show a significant rise, which could help minimize the amount of water needed to meet the targeted Bonneville tailwater elevation. The plan is to continue the chum operation to maintain tailwater in the 11.3 – 13.0ft range for the foreseeable future.

Joel Fenolio, BOR, noted that Grand Coulee operations for chum are likely heading for the lowest end of November elevation in post BiOp era since 2000, which was 1,276.7ft.

Zero Generation at Snake Projects

Paul updated the group on Snake River Zero Generation criteria for the year. The criteria are based on the size of the adult steelhead run to date at Lower Granite Dam. For this year, the criteria for "few" steelhead are less than 20 total steelhead and 10 wild steelhead. These numbers reflect the low-run year. Tony noted that it affects the start date, the window of time is from December through the end of February, and operations don't start until both criteria are met. So far, the running 3-day average counts are 74 total steelhead and 22 wild. There will be an email notification from NOAA when criteria are met.

**The next scheduled TMT meeting is a conference call on November 28, 2018, at 9:00 AM.
Meeting minutes/summaries will be finalized at the December 12th TMT meeting.**

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.

Facilitator Summary

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Columbia River Regional Forum
TECHNICAL MANAGEMENT TEAM OFFICIAL MINUTES
November 21, 2018
Minutes: Melissa Haskin, FLUX Resources

1. Introduction

Representatives of NOAA, USFWS, Corps, BPA, Reclamation, OR, ID, WA, Nez Perce Tribe, Umatilla/CRITFC, Warm Springs, and others participated in today's TMT meeting chaired by Lisa Wright, Corps, and facilitated by Emily Stranz, DS Consulting. See the end of these minutes for a list of attendees.

2. Chum Operations

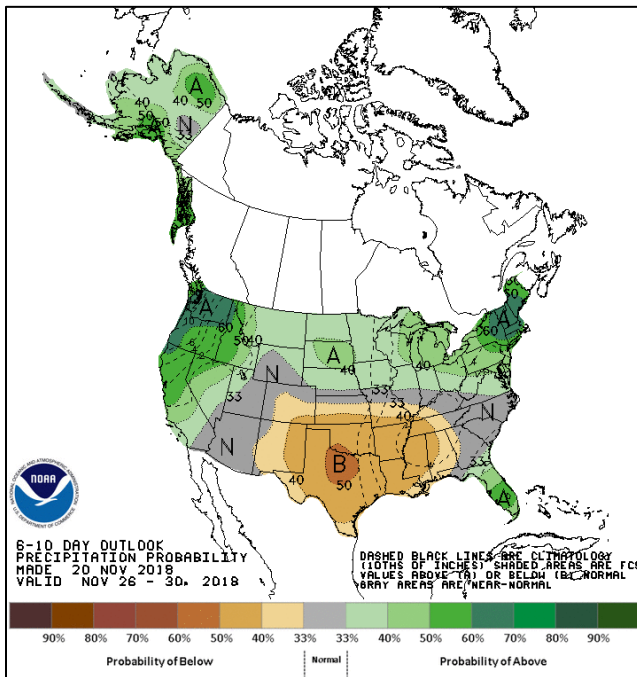
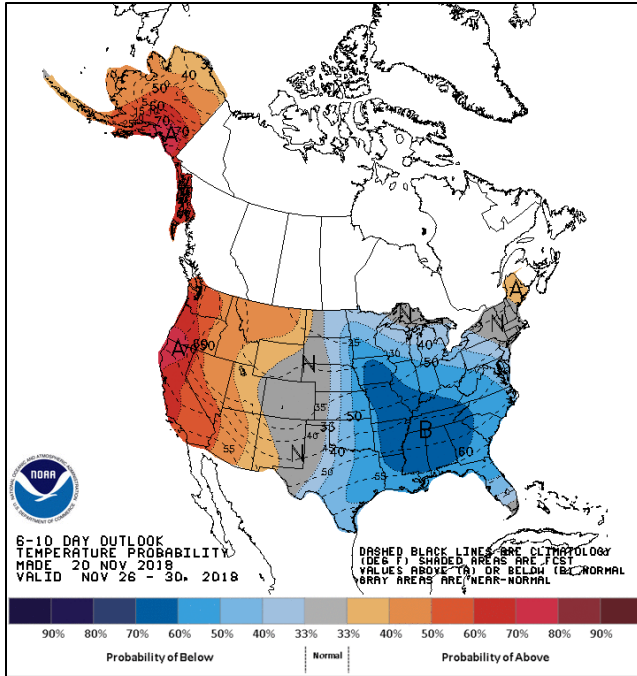
Lisa Wright, Corps, updated TMT on Chum Operations. A full explanation of the operation is available on the TMT website. On November 13, an operation was coordinated at TMT to operate Bonneville tailwater in the range of 11.3-13 feet during all hours. The tailwater today has been fluctuating between 11.3 ft and 11.8 feet. Yesterday, the elevation was between 11.4 ft and 11.8 ft.

Paul Wagner, NOAA, reported on fish. So far 93 chum were observed on November 1 and 13 on November 13, with very few redds sighted. Charles Morrill, WA, reported that 100 chum were observed during this week's survey. He also had numbers for Chinook – 500 yesterday and 8,000 Chinook in the area this season. Most of those are wild, he said.

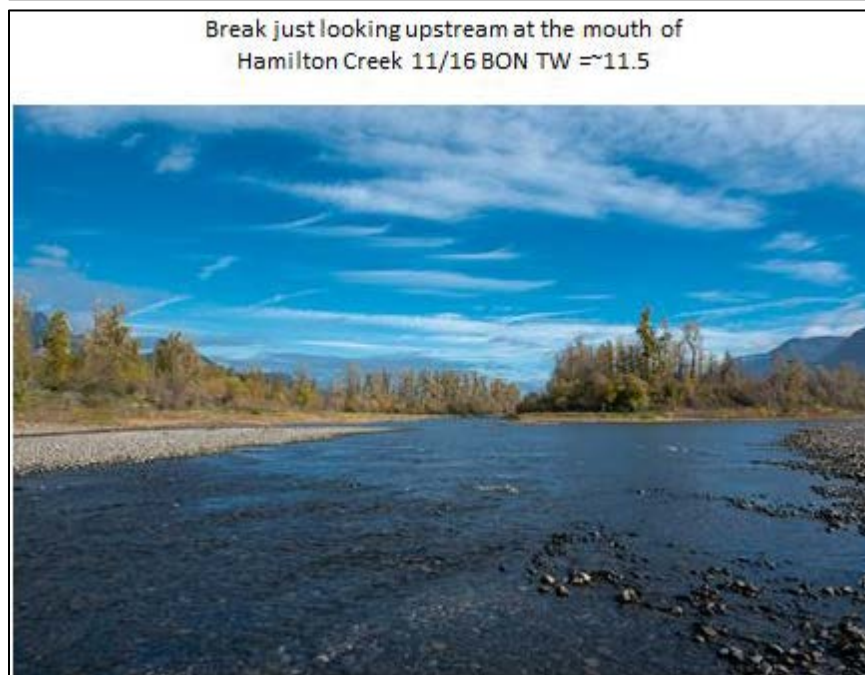
At Bonneville, 90 chum have passed, which salmon managers remarked is high compared to years past.

At Bonneville, current outflows are around 130 kcfs and forecasted to decline to around 125 kcfs over the next 10 days. The weather forecast calls for precipitation and dropping freezing levels over the next 3 days. Things should clear up over the weekend. More warm rain with a high freezing level may come next week. The RFC Willamette River inflow forecast is for a lot of water, but Tony Norris, BPA, was skeptical.

The NWRFC climate outlook calls for above average temperatures and precipitation over the next 6-10 days (see figures below) and 8-14 days. The 30-day outlook predicts warmer than average temperatures and an equal chance of above or below average precipitation.



The following pictures were provided by Tony Norris, BPA, showing conditions at the Hamilton Creek area on November 9 and November 16.

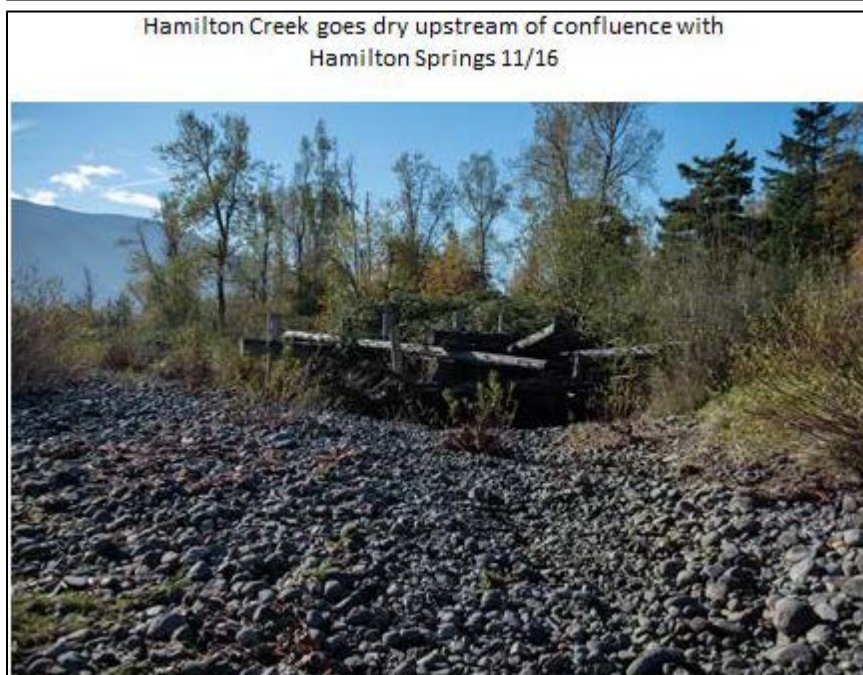
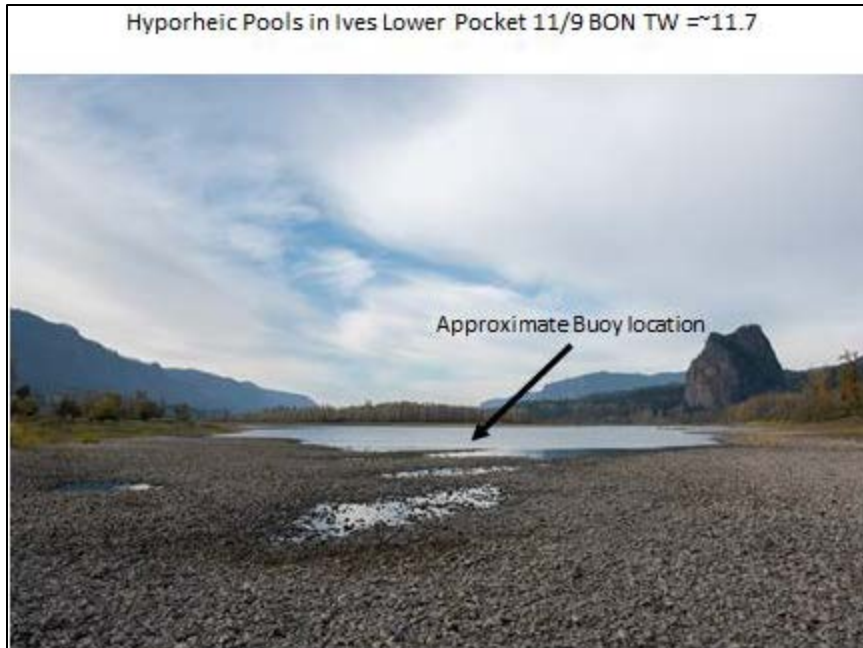


Hyporheic Pools in Ives Lower Pocket 11/9 BON TW ≈11.7



Break just Downstream of mouth of Hamilton Creek 11/16 BON TW ≈11.5





Joel Fenolio, BOR, noted that Grand Coulee operations for chum are likely heading for the lowest end of November elevation in the post-BiOp era since 2000, which was 1,279.1ft. The elevation from November 20 at midnight was 1,278.1 ft with the potential of Coulee being drafted below 1,275 ft by the end of the month. The elevation of 1,275 ft on November 30 gives Coulee a better chance of being at the April 10th target to provide flows on the Columbia River for the spring migration. The Salmon Managers had discussed this as a tradeoff to maintaining the tailwater between 11.3 and 13 ft below Bonneville Dam.

Charles Morrill, WA, noted that there was a drop in the tailwater that the surveyors observed but did not show in the hourly values. He was curious why it didn't show in the data. Tony Norris, BPA, pointed out that the drop in outflow and tailwater was within normal hour-to-hour variability and was consistent with the hourly data reported.

3. Zero Generation at Snake Projects - Paul Wagner, NOAA, and Tony Norris, BPA

Paul Wagner, NOAA, reported on the December through February Zero Generation operation at the Snake River Projects. The trigger (adult steelhead passage numbers) for start of the operation has not been met yet and is not typically met until water temperatures drop further. Paul reports that this year's criteria for "few" steelhead to start the zero generation operation is a running 3-day average of adult steelhead passage less than 20 combined and 10 wild. After December 1st, NOAA will email Doug when the criteria have been achieved.

4. Next TMT. The next TMT meeting is conference call to discuss Chum operations on November 28, 2018, at 9 a.m.

Today's Attendees:

TMT Members:

Agency	TMT Representative
Army Corps of Engineers	Lisa Wright (Chair)
Bonneville Power Administration	Tony Norris
Bureau of Reclamation	Joel Fenolio
NOAA Fisheries	Paul Wagner
US Fish & Wildlife Service	Dave Swank
Washington	Charles Morrill
Oregon	Erick Van Dyke
Idaho	Russ Kiefer
Montana	N/A
Nez Perce Tribe	Jay Hesse
Umatilla Tribe	Tom Lorz (CRITFC)
Colville Tribe	N/A
Warm Springs Tribe	Jen Graham
Kootenai Tribe	N/A
Spokane Tribe	N/A

Other Attendees (non-TMT members):

- Corps – Jon Roberts, Alfredo Rodriguez
- DS Consulting – Emily Stranz (Facilitator), Colby Mills
- FLUX Resources – Melissa Haskin (Note taker)
- Yakama Nation Fisheries – Tom Iverson
- Snohomish PUD – Mike Shaffley