

COLUMBIA RIVER TECHNICAL MANAGEMENT TEAM
March 11, 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://pweb.crohms.org/tmt/agendas/2018/>.

Chum Operation

Paul Wagner, NOAA, informed the TMT that Salmon Managers were not able to meet last Friday, as information was late in coming.

Julie Ammann, Corps, provided current conditions and the most recent forecast data for the group. The first 10 days of March have been cold and dry. Seasonal precipitation is close to normal in the southern part of the basin and below normal in the north. Precipitation volume is forecast to be below normal for most of the basin for the next 10-day period, through March 21. The 6-10 day climate outlook shows below normal precipitation and normal to slightly warmer temperatures for most of the basin. The 8-14 day outlook shows slightly above normal temperatures for lower parts of the basin, normal temperatures for the northern part of basin, and slightly below normal precipitation. Looking 3-4 weeks out, temperatures are above normal and precipitation is below average.

Grand Coulee had a midnight elevation of 1,263ft. Julie noted that the project has been drafted from 1,269ft as of March 1st. The current flood risk management requirements are targeting 1,283.3ft for April 10th, and an estimate of 1,272ft for the end of April according to the current water supply forecast.

ESP Modeling Results

Aaron Marshall, Corps, updated the group on the ESP analysis ran last week, that looked at two different scenarios for system operations:

1. Operating strictly to Vernita Bar, with the minimum of 65 kcfs below Priest Rapids Dam; and,
2. Operating to the chum flow objective of 130 kcfs at Bonneville Dam.

He summarized that the results showed hardly any difference between the two operations when looking at median ESP traces for April 10 elevations at Grand Coulee (only about a foot difference between the two operations). To provide background and hopefully some clarity on current operations, they modelled a subset of those ESP traces, years 1955 and 1965, both of which had similar low and late runoff from the Lower Snake River Basin, and therefore gave low runoff up through April 10. There was a 10-foot difference between the Grand Coulee elevation when operating to Vernita Bar versus operating for chum. Operating strictly to Vernita Bar in those cases provided a 10-foot higher elevation for Grand Coulee on April 10.

Aaron noted that if the Snake River flows pick up, there would not likely be a dramatic elevation difference between the two operations, as there would be enough local flow to meet Vernita Bar and still meet chum. Based on the traces from the low runoff years of 1955 and 1965, the Corps predicts about a 10% probability of meeting 1,283ft on April 10, and Joel Fenolio, BOR, estimated reaching only 1,255ft by April 10.

Lower Granite Dam

The Lower Granite 10-day inflow forecast shows trends staying in mid-low 30 kcfs range; the RFC forecast tends to trend to climatology, thus shows a spike later in the period. The 10-day forecast also shows temperatures increasing, and Paul noted that the freezing level should increase to the 8-10 thousand foot level, which indicates low elevation snow pack will start melting and stream flow should pick up.

The monthly water supply volume forecast for Lower Granite looks at a range of 5-day ESP forecasts compared with the 30-year average. The volume for March at Lower Granite looks below normal, slightly below normal for April, closer to normal in May and through the rest of the season. In terms of monthly volume runoff, the current forecast for March is 77% of average.

Bonneville Dam

Bonneville Dam tailwater elevation is right around chum elevation, at 11.5 feet. There has been a steep decline in flows in the lower river, as well as a decline in inflows at Grand Coulee. This downward trend at Bonneville, shows 122 kcfs out by day 10, while the Corps' ESP analysis indicates something slightly higher is needed in order to maintain chum.

Comments from TMT members

Paul appreciated the information and analysis, and NOAA's, and other Salmon Managers' view is to hold the course until Wednesday, where they will bring a recommendation after Tuesday's FPAC meeting.

Joel emphasized Reclamation's stance that it is important to get a recommendation and concurrence from the Salmon Managers on exactly what the operation is going to be moving forward. Reclamation's position is still to prioritize April 10, and hopes to get firmer concurrence from the group at the March 13 TMT meeting.

→ ACTION: The Corps will provide more detailed volume data for the past years of 1955 and 1965 for Lower Granite and The Dalles at Wednesday's meeting.

Finally, Joel updated the group on the Shoshone-Bannon agreement, noting that the agreement is Idaho-centric, in that water released must be used consumptively in the confines of the state of Idaho. This is not a viable alternative for getting emergency flows further down the basin.

**The next scheduled TMT meeting is a face-to-face meeting on March 13, 2019, 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
March 11, 2019
Minutes: Melissa Haskin, FLUX Resources

1. Introduction

Representatives of Corps, NOAA, BPA, Umatilla Tribe, WA, Colville Tribe, Bureau of Reclamation, Nez Perce Tribe, and others participated in today’s TMT meeting chaired by Julie Ammann, Corps, and facilitated by Emily Stranz, DS Consulting. See the end of these minutes for a list of attendees.

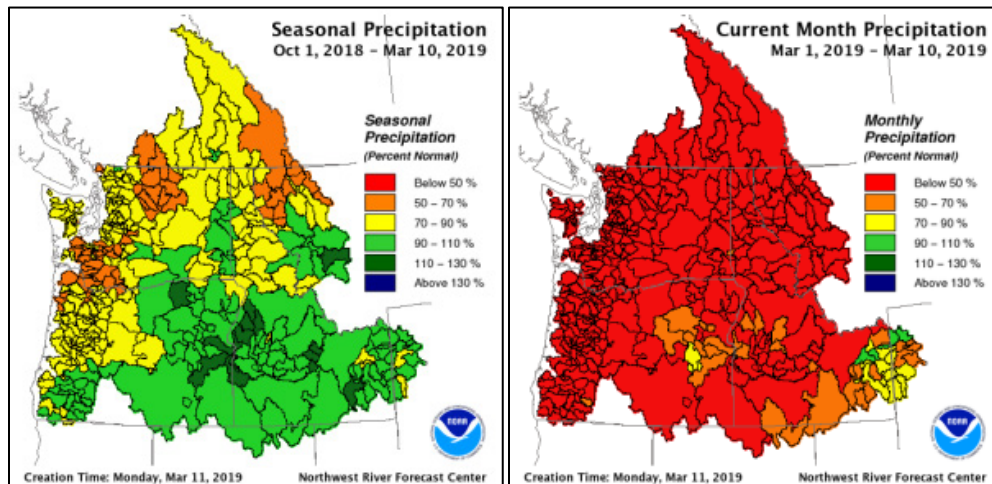
The focus of today’s unscheduled TMT meeting was whether or not to continue chum operations.

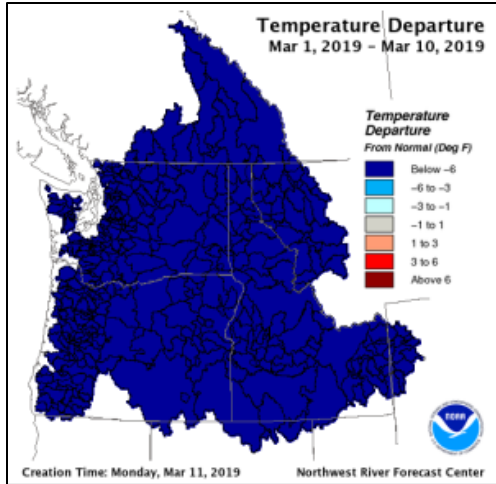
2. Chum Operations

The chum incubation operation continues with a Bonneville Dam tailwater minimum of 11.3 ft. all hours. TMT faces a difficult decision today whether or not to dewater chum salmon. With flows especially low this year, agencies need to be careful not to overdraft early in the season. At last Wednesday’s TMT, salmon managers decided to stay the course with the chum operation. Today should offer new information for salmon managers to inform their decision of whether or not to dewater chum and fall Chinook salmon that spawned downstream of Bonneville Dam this year.

2a. Current Month Summary Graphics

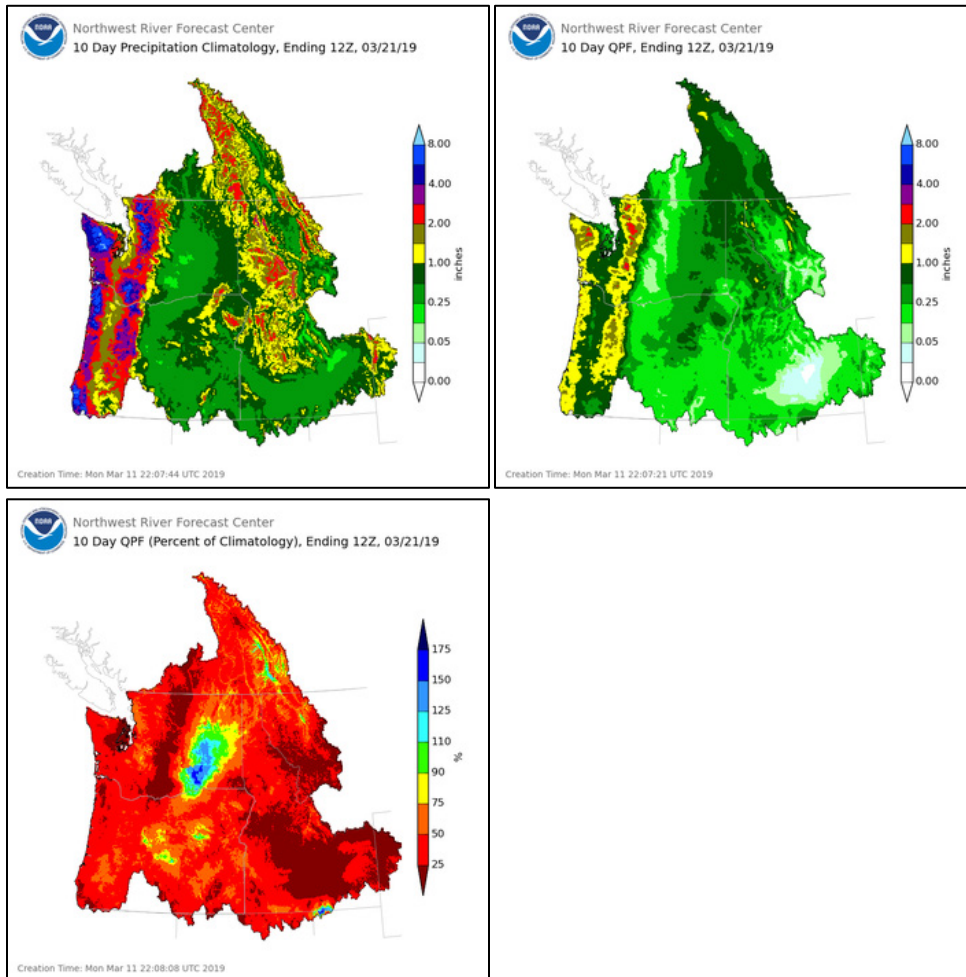
Julie Ammann, Corps, took TMT through the NWRFC summary graphics and forecasts. This month is still tracking colder than average and dry. Seasonal precipitation is still close to normal in the southern part of the basin and below normal in the north.





2b. Forecast Precipitation Summary

The 10-day NWRFC precipitation forecast shows below normal conditions for the next 10 days (through March 21).



2c. Climate Forecast

The 6 to 10-day NWRFC climate forecast says below average precipitation and normal to slightly above normal temperatures for most of the basin. The 3-4 week forecast shows above normal temperatures and below normal precipitation.

2d. Grand Coulee Operations Data

Grand Coulee's midnight elevation was 1263 ft.

2e. Grand Coulee Flood Risk Management Requirements

The April 10 Flood Risk Management elevation for Grand Coulee is 1283.3 ft. The current forecast for the end of April elevation is short of that at 1272 ft.

2f. ESP Modeling Results

Aaron Marshall, Corps, took TMT through the Corps' ESP analysis. The Corps ran two scenarios:

1. Operating to Vernita Bar flow minimum of 65 kcfs below Priest Rapids Dam;
2. Operating to chum flow objective of 130 kcfs at Bonneville Dam.

The models show only about a 1-foot difference between the operations looking at the median ESPs. However, subsets of the data show variation. They showed a difference of up to 10 feet elevation at Grand Coulee on April 10 between the operations in the ESP years that were cooler and had later runoff on the Snake.

Julie Ammann noted that one of the takeaways is if the Snake River picks up, there will not be much difference between the runs and there should be enough local flow to allow for meeting chum operations by running just to Vernita Bar requirements. If it stays dry and cool, more storage will be needed out of Grand Coulee.

2g. Lower Granite Inflow Forecast

The inflow forecast for Lower Granite is for mid to low 30 kcfs over the next 10 days. Towards the end of the 10 days, inflow is forecasted to increase to 40 kcfs due to NWRFC trending the forecast towards climatology.

2h. Lower Granite Monthly Water Supply Volume Forecast

The NWRFC Monthly Water Supply Forecast shows the volume may be slightly below normal at Lower Granite for March. Likewise, the volume for April could be below normal as well as May, though May is closer to the 30-year average. Aaron Marshall added that the current forecast for March is 77% of average.

2i. Bonneville Dam Hourly Data

Outflows are 129 kcfs, inflows are 116 kcfs and the forebay elevation is 73.8 ft. The tailwater elevation is 11.5 ft.

Tony Norris, BPA, noted that inflows to Grand Coulee are dropping.

2j. Bonneville Dam Inflow Forecast

The NWRFC forecasts inflows of approximately 122 kcfs over the next 10 days.

Discussion

Paul Wagner, NOAA, said he appreciated the analysis and data. He advocated for holding the course with chum and check back in at Wednesday’s TMT. He said he would take the data from this meeting to FPAC and come back with a recommendation.

Joel Fenolio, Reclamation, asked for information on exactly what the operation is going to be moving forward. He stressed again, as he did at the last meeting, that there seems to be a lot of hope that “average” will happen when it does not seem like likely. He says Coulee has probably been drafted to the bottom of what it normally would for chum operations. Reclamation’s position is to prioritize April 10.

At last week’s TMT, a member of the public mentioned an opportunity that would allow agencies to get water out of the Snake River by subscribing it from Idaho Power. Joel Fenolio, Reclamation, reported that he looked into it and this is not an option. The agreement is Idaho-centric. If there are rentals out of Palisades, that water has to be used between Milner Dam and the Upper Snake. Rentals above American Falls have to be used within the state of Idaho. So even if water is released, it has to have use within the state.

Bruce McKay, member of the public, asked about the assumptions made in the May and April forecasts. Julie said she thought it was mainly TSR estimates.

3. Next TMT. The next TMT meeting is a face-to-face at the Corps NWD office on Wednesday, March 13, 2019 at 9 a.m.

Today’s Attendees:

TMT Members:

Agency	TMT Representative
Army Corps of Engineers	Julie Ammann (Chair), Doug Baus, Lisa Wright
Bonneville Power Administration	Tony Norris, Scott Bettin
Bureau of Reclamation	Joel Fenolio, Chris Runyan
NOAA Fisheries	Paul Wagner

Agency	TMT Representative
US Fish & Wildlife Service	Dave Swank
Washington	Charles Morrill
Oregon	N/A
Idaho	N/A
Montana	Jim Litchfield
Nez Perce Tribe	Jay Hesse
Umatilla Tribe	Tom Lorz
Colville Tribe	Sheri Sears
Warm Springs Tribe	N/A
Kootenai Tribe	N/A

Other Attendees (non-TMT members):

Corps – Aaron Marshall, Alexis Mills, Laura Hamilton, Dan Turner, Ron Malmgren, Eric Chow

DS Consulting – Emily Stranz (Facilitator), Colby Mills

FLUX Resources – Melissa Haskin (Note taker)

Clearing Up – K.C. Mehaffey

NPCC – Lynn Palensky

Portland General Electric – Ruth Burris

Idaho Power – Jim Chandler

Columbia Basin Bulletin – Mike O’Bryant