

COLUMBIA RIVER TECHNICAL MANAGEMENT TEAM

December 16, 2015

Facilitator's Summary

Facilitator, Emily Plummer; Notes, Tory Hines 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.

Review of Meeting Minutes

The November 18th Official Minutes and Facilitator's Summaries were approved. The group will review the December 11th minutes and summary for approval at the next face to face meeting on January 20th, 2016.

Chum Operation

Paul Wagner, NOAA, shared that FPAC arrived at a recommended operation at their meeting on the 15th, however, since then, the flow forecast has increased significantly and WDFW has received survey data that may influence the recommended operation. Paul noted that the operation discussed at FPAC is to not go lower than a 13ft tailwater elevation, and to re-wet redds, with a tailwater elevation up to 16ft for a four hour period at night. Charles Morrill, WA, noted that surveys were conducted on Monday and Tuesday, and that the survey crew reported that there were Chum in the area, however, no signs of redds in the exposed dry areas or edges of the water; the tailwater elevation was between 13.5 -15.0ft during the surveys. Both Paul and Charlie noted that if there are no redds above 13ft, the tailwater could be stepped down when possible. Tony noted that there is still too much water in the system to significantly shape the flow; he did not expect flows to come down until January.

Tony asked if the Salmon Managers were ready to set a protection level for incubation and an end date for the spawning operation, as it appears that weather would prohibit any additional surveys. Charlie shared that weather conditions permitting, an additional survey will be conducted tomorrow to determine chum counts. It was requested the group follow up on protection levels once tomorrow's survey is complete. Joe Skalicky, USFWS, requested more information on where chum are spawning in the mainstem Columbia, noting that with high flows from the Willamette, other areas could potentially have redds at higher elevations. Tony noted that tailwater elevations may be higher than expected due to Hamilton Creek surging. Charles also noted that the location of the redds is different than in past years, this may be a result of environmental factors or upwelling. There was interest in waiting to see if more information is available by the next TMT meeting, then discuss recommended protection levels for the incubation and emergence phase. For now, the Corps will follow the previously coordinated chum operation (see agenda for operation steps) until the end of the month and set a protection level next week to begin on January 1st.

→ **ACTION:** At this time, the plan is to continue with the current chum operation through midnight December 31st. At 0000 hours on January 1st the Action Agencies will switch to the incubation operation, tentatively set at a 12.5ft minimum. If more information becomes

available TMT will revisit this operation. TMT will check in on the Chum operation at the December 22nd conference call.

→ **ACTION:** BPA and WDFW will coordinate the removal of the WDFW trap at Duncan Creek.

Operations Review

Reservoirs

Mary Mellema, BOR, reported the Reclamation projects:

- Hungry Horse midnight elevation was at 3,524.16ft with 1.2kcfs outflow to meet the Columbia Falls minimum flows. The recent reduction in outflow was due to local precipitation events. Mary noted that there is some snowpack building, however, not as much as they would like to see.
- Grand Coulee midnight elevation was at 1,287.9ft.

Lisa Wright, COE-NWD, reported on Corps projects:

- Libby was at elevation 2,426.7ft, with 3.6kcfs inflow and 23.6kcfs outflow.
- Albeni Falls was at elevation 2,051.4ft, with 16.5kcfs inflow and 14.3kcfs outflow.
- Dworshak was at elevation 1,521.3ft, with 3.1kcfs inflow and 1.7kcfs outflow.
- Lower Granite average inflow was 26.2kcfs and outflow was 28.7kcfs.
- McNary average inflow was 125.9kcfs and outflow was 124.2kcfs.
- Bonneville average inflow was 146.6kcfs and outflow was 149.6kcfs.

Fish

Paul Wagner, NOAA, reported on fish. Paul noted that Chum are the predominant species in the system right now, however, there are some steelhead and Fall Chinook passing Bonneville. Steelhead are also still passing Lower Granite, with nearly 100 passing earlier this week. He noted that Lower Granite counts will end when the ladder is taken out of service for maintenance at the end of December.

Water Quality

Laura Hamilton, COE, stated that the Warrendale gauge data is not coming into the Corps database due to an incident with an abandoned sailboat that became wrapped around the antenna pole that is involved in transmitting the data. USGS is working to repair the gauge and is sending Corps data. All other gauges are working.

Power Systems

Nothing to report.

The next TMT meeting will be a conference call at 1:00 on Tuesday, December 22nd.

Columbia River Regional Forum
Technical Management Team Meeting
December 16, 2015

Notes: Pat Vivian

1. Introduction and Review Meeting Minutes – November 18 and December 11

Representatives of Oregon, BPA, the COE, Washington, USFWS, Idaho, BOR, Yakama Tribe and others participated in this TMT meeting chaired by Doug Baus, COE, and facilitated by Emily Plummer, DS Consulting. This summary is an official record of the conversation, not a verbatim transcript.

The November 18 meeting minutes and facilitator's summary were approved as final. The December 11 minutes and summary will be reviewed at the next TMT meeting.

2. Chum Operation

While chum are definitely present in the river below Bonneville Dam, there is no sign of spawning activity at the edges or redds established at higher tailwater elevations WDFW surveyed yesterday, Charles Morrill, Washington, reported. Survey crews found no redds between 13.5 and 15 ft, including the Hamilton Springs area and a small slough chum have used heavily in previous years. Yesterday FPAC discussed the situation and decided that, with no redds observed above 13 ft, there's no need to keep that elevation as a protection level, Paul Wagner, NOAA, reported. Once the river is under control, the incubation protection level will probably be closer to 12.5 ft. Tomorrow WDFW survey crews will make another attempt to pinpoint redd locations.

Tomorrow the tailwater elevation will probably be 16 ft and might not get down to 13 ft again until January, Tony Norris, BPA, reported. It was challenging to manage the water so yesterday's survey could take place at 13.5 ft. The tailwater elevation of 13.5 ft for the survey was achieved by limiting Bonneville releases to 90 kcfs. Grand Coulee reservoir is full, water supply forecasts keep increasing, and inflows from the Willamette River haven't peaked yet.

Given that the situation isn't likely to change soon, Norris suggested TMT consider setting a chum incubation protection level and an end date for the chum spawning operation now. He asked whether the Salmon Managers would like the Action Agencies continue to shape the excess water to the nighttime hours, or should they target flat flows?

Wagner and Morrill agreed it would be advisable to continue the current plan for chum as specified in the December 11 TMT meeting as soon as possible. Morrill will follow up with WDFW survey crews on setting a reasonable end date for spawning protection. Setting a minimum elevation for the incubation phase of the chum operation

should wait until there is more clarity on what elevation might be sustainable through winter. For now, let's plan for a minimum of 12.5 ft in the BON tailwater, Wagner said. A minimum elevation is desirable because other spawning areas in the Columbia are experiencing higher elevations due to backwater effects from the Willamette, Joe Skalicky, USFWS, said.

Survey crews are confident that no redds exist at the edges of the tailwater, starting at 15.5 ft elevation below BON, Morrill said. The tailwater elevation has been mostly maintained below 13 ft during daytime hours until December 8, Lisa Wright, COE, said, so the lack of redds at higher elevations doesn't seem surprising. Morrill speculated that chum might have changed their behavior in response to high water levels. Pockets in the Ives Island area that were heavily used 10 years ago are seeing no spawning activity now. The cause of this change is unknown. USFWS would not be comfortable setting a minimum protection level until more is known about current redd locations, Skalicky said. Redds could be present even if they were not visible to survey crews.

Norris suggested that TMT revisit the chum operation next week and consider setting a minimum tailwater elevation then for incubation. TMT tentatively agreed to transition at midnight December 31 from spawning protection, with its current daytime elevation target of 13.0-16.5 ft below BON, to the incubation phase, a minimum tailwater elevation of 12.5 ft during all hours. This plan is subject to revision as more information becomes available.

Information linked to today's agenda highlights the current water supply situation. Heavy precipitation and high tailwater elevations are expected to continue over the next 10 days, Baus said. Morrill emphasized the difficulty of getting definitive spawning information under these conditions. WDFW surveyors will do their best to provide clarifying details over the next week. TMT scheduled a potential conference call on December 22 to revisit the chum operation if there is new information to consider.

3. Operations Review

3a. Reservoirs. Mary Mellema, BOR, reported that Grand Coulee reservoir is at elevation 1287.9 ft. Hungry Horse is at elevation 3524.16 ft, releasing 1.2 kcfs to meet Columbia Falls minimum flows. Snowpack in the basin is 90% of average.

Lisa Wright, COE, reported that Libby is at elevation 2426.7 ft with inflows of 3.6 kcfs and discharges of 23.6 kcfs. Albeni Falls is at elevation 2051.4 ft with inflows of 16.5 kcfs and discharges of 14.3 kcfs. Dworshak is at elevation 1521.3 ft with inflows of 3.1 kcfs and discharges of 1.7 kcfs. Lower Granite inflows are 26.2 kcfs and discharges are 28.7 kcfs. McNary inflows are 125.9 kcfs and discharges are 124.2 kcfs. Bonneville inflows are 146.6 kcfs and discharges are 149.6 kcfs.

3b. Fish. Except for chum, fish activity is negligible at this point, Paul Wagner reported. A few adult steelhead are still passing BON, and steelhead passage at LGR

has picked up again. The Lower Granite fish ladder is scheduled to shut down for maintenance on December 31.

Baus asked how the chum population compares to previous years. According to recent surveys, chum counts for 2015 are high and the run did well, with 60% egg-to-fry survival in the spawning channel, Morrill replied. Spawning site fidelity this year is unknown, as is egg-to-fry survival in the mainstem Columbia.

There was discussion of the tailwater elevation needed to remove the WDFW trap at Duncan Creek below BON. Morrill said it could probably be done at 13 ft and will follow up on that. Scott Bettin, BPA, will coordinate trap removal. If there is no change from the current chum operation and no new information by next week, the COE will notify TMT via email that no conference call is needed.

3c. Water Quality. Laura Hamilton, COE, reported. Data transmission from Warrandale gauge is down due to a broken antenna. The damage was caused by an abandoned sailboat that slipped its rigging and struck the shed holding the USGS instruments. The COE has ordered a new antenna and plans to install it this week. Meanwhile, COE staff are manually sending data for entry into the water quality database. All other water quality monitoring stations are up and running.

3d. Power. There was nothing to report.

4. Next TMT Meeting

TMT scheduled a placeholder conference call Tuesday, December 22 to discuss chum if necessary.

Name	Affiliation
Erick Van Dyke	Oregon
Eve James	BPA
Tory Hines	DSC
Tony Norris	BPA
Julie Ammann	COE
Paul Wagner	NOAA
Lisa Wright	COE
Doug Baus	COE
Laura Hamilton	COE
Michelle Yuen	COE
Charles Morrill	Washington

Phone:

Joe Skalicky	USFWS
Russ Kiefer	Idaho
Mary Mellema	BOR
Pat Richards	Snohomish PUD

Tom Iverson
Scott Bettin

Yakama Tribe
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