

# COLUMBIA RIVER TECHNICAL MANAGEMENT TEAM

April 15, 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 March 18th, 25th and April 1st and 8th Official Minutes and Facilitator's Summaries were approved.

## Water Supply Forecast

Doug Baus, COE-NWD, provided an update on the official April water supply forecast which is posted on the TMT website. Mary Mellema, BOR, noted that the volumes for the final April forecast for Hungry Horse Dam:

- April-July: 1,653 kaf (88% of the average);
- April - August: 1,704 kaf (88%); and,
- May-September: 1,490 kaf (88%)

Mary also noted that the minimum flows downstream of Hungry Horse are as follows:

- Columbia Falls: 3,500 cfs
- Hungry Horse: 900 cfs

Doug provided official February forecasts for USACE projects:

- The Dalles April-August: 72 maf (83%),
- Lower Granite April-July: 14 maf (68%),
- Libby April-August: 5,808 kaf (99%),
- Dworshak April-July: 1,709 kaf (70%), and
- Grand Coulee April-August: 51 maf (90%)

He continued with the NWRFC Current Conditions forecast for The Dalles, noting the April-August projections are at 71 maf, 81% of the average. Doug also stated that the snow water equivalent in the Cascade Region is well below average, as noted throughout the year in previous TMT meetings.

## Operations Review

**Reservoirs:** Mary Mellema, BOR, reported on Reclamation projects:

- Grand Coulee elevation was 1,252.7ft. The drum gate maintenance is expected to be completed by May 10th.
- Hungry Horse elevation was 3,539.2ft with 6.7kcfs outflow; the project is drafting slowly to prevent spill in May and meet TDG requirements.

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

- Libby was at elevation 2,421.3ft , with 8.3kcfs inflow and 15kcfs outflow.
- Albeni Falls was at elevation 2,053.6ft, with 34.2kcfs inflow and 34.1kcfs outflow.
- Dworshak was at elevation 1,589.2ft with 8.3kcfs inflow and 6.1kcfs outflow.
- Lower Granite average inflow was 42.6kcfs.
- Bonneville average inflow was 179.5kcfs.
- McNary average inflow was 179.2kcfs.

Steve Hall, COE- Walla Walla, provided an update on the Dworshak operations, noting that the project will be operated at full powerhouse beginning April 16th and likely continuing through the rest of the month. It is expected that inflows will increase over the weekend and with only 10% of the lower elevation snowpack remaining, the Corps is moving to an earlier refill date. Russ Kiefer, ID, extended his appreciation to Steve for acquiring the flood control deviations and delaying full powerhouse operations until later in April. Russ noted that he appreciates Steve's efforts to help with juvenile fish migration conditions.

Doug Baus shared that there may be a need for a navigation safety operation at Little Goose. Like years past, a MOP +1 (634 – 635 ft.) is allowed at Little Goose in order for barges to safely pass through the navigation lock at Lower Granite as described in the 2015 Fish Operations Plan, during low flow periods of 50 kcfs or less. Doug noted that MOP elevations are between 633 and 634ft. Past operations have only required a 1/2ft increase in MOP. Doug continued that this discussion is meant to inform TMT members that the Corps may increase MOP elevations if needed for safe navigation access at Lower Granite.

Steve Hall also provided an update on the sediment impacts at marinas upstream of Lower Granite that became apparent when the project transitioned to MOP. At the April 8th TMT meeting, Steve shared that the Port of Lewiston was considering submitting an SOR to increase pool elevations for a few hours in order to allow boats to exit the marina. Steve noted that after further discussion, the Port is looking into other options. He also noted that the Port leases the marinas from the Corps and the Port is contractually responsible for managing sediments; the Port opted out of dredging when the Corps dredged the area earlier this year. Any dredging operation at the marina would require that the Port obtain permits from the Corps.

**Fish:** Paul Wagner, NOAA, reported on fish. In regards to adult counts: 10,000 spring chinook have passed Bonneville, which is 350% of the 10 year average. He noted this is 250% of counts from last year at this time. Counts at Lower Granite were around 60 fish, and the 10 year average is 0 for this time of year; there was 1 fish past at this time last year. In regards to juvenile counts: 10,000 yearling Chinook have passed at Lower Granite thus far, and more are expected. Steelhead counts are low, however, average for this time of year. Joe Skalicky, USFWS, reported that they are gearing up for the second release at Spring Creek; however, many of the fish are sick with an intestinal protozoa. There is a discussion on releasing the 4.6 million fall chinook earlier to get the fish to the estuary. He noted that salt water is the only real cure to the protozoa and the sooner the fish reach the ocean the better, however, they need to balance releasing the fish too soon, as they will be smaller and thus be more susceptible to predation. It was noted that USFWS and the AA's need to coordinate, as there is testing planned at BON, and an earlier release would need to be coordinated.

- **ACTION:** Joe Skalicky will update and coordinate with BPA and USACE regarding the release.

**Water Quality:** Tina Lundell, COE-NWD reported on water quality, noting that as of April 10th all of the lower Columbia projects were running and all gauges were working properly. She noted that the Lower Monumental gauge issues were resolved. She continued that so far only 1 TDG exceedance occurred in April, this was in the Ice Harbor forebay.

**Power System:** Nothing to report.

**The next TMT meeting will be a conference call on April 22nd at 9:00am.**

**Columbia River Regional Forum**  
**TECHNICAL MANAGEMENT TEAM—OFFICIAL MINUTES**

**April 15, 2015**  
Minutes: Pat Vivian

**1. Introduction**

Representatives of the COE, BOR, BPA, Washington, USFWS, NOAA, Nez Perce Tribe, Montana, Idaho, Oregon and others participated in today's TMT meeting. Doug Baus, COE, chaired the discussion and Emily Plummer, DS Consulting, facilitated. This summary is an official record of the proceedings, not a verbatim transcript.

**2. Meeting Minutes – March 18, 25, April 1 and 8**

There were no changes to the facilitator's notes or official minutes so all were declared final.

**3. Update on Water Supply Forecast**

**3a. Official Water Supply Forecast.** Mary Mellema and Doug Baus gave the official April water supply forecasts for BOR and COE projects:

- Hungry Horse (April-July) –1653 kaf, 88% of average  
(January-July) – 2337 kaf, 111% of average (due to high March inflows)  
(April-August) – 1704 kaf, 88% of average  
(May-September) – 1490 kaf, 88% of average
- The Dalles (April-August) – 72 maf, 83% of average
- Lower Granite (April-July) – 14 maf, 68% of average
- Libby (April-August) – 5808 kaf, 99% of average
- Dworshak (April-July) –1709 kaf, 70% of average
- Grand Coulee (April-August) – 51 maf, 90% of average

See the link on today's agenda for further details.

**3b. NWRFC Water Supply Forecast – Current TDA Conditions.** The current NWRFC forecast for The Dalles (April-August) is 71 maf, 81% of average.

**3c. NWRFC SWE % of Normal.** The information linked to today's agenda follows the same pattern seen so far this season, with snow/water equivalents in the Cascades remaining well below average. Revelstoke and the upper Snake are among the few locations with nearly normal SWEs.

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

**4a. Reservoirs.** Hungry Horse is at 3539.2 ft elevation, releasing 6.7 kcfs and drafting in an effort to avoid spill and TDG issues in May while following VARQ rules. The project is releasing a bit more than flood control elevations require in an effort to avoid raising TDG levels below Hungry Horse and to prepare for upcoming outages. Jim Litchfield said Montana appreciates the BOR's efforts to avoid TDG problems for the spring run by releasing more water now.

Grand Coulee is at 1252.7 ft elevation, with drum gate maintenance still on track to be finished May 10. Libby is at 2421.3 ft elevation, with inflows of 8.3 kcfs and releases of 15 kcfs. Albeni Falls is at 2053.6 ft, passing inflows of 34.2 kcfs with releases of 34.1 kcfs. Lower Granite inflows are 42.6 kcfs, McNary inflows are 179.5 kcfs, and Bonneville inflows are 179.2 kcfs.

Steve Hall, COE, updated TMT on project operations of concern:

Dworshak. The forebay is at elevation 1589.2 ft with inflows of 8.3 kcfs and releases of 6.1 kcfs. Inflows are forecasted to increase over the weekend and early next week due to warm weather. The project will ramp up to full powerhouse at midnight on April 16 and will probably continue that operation through the end of the month. There might be a need to reduce releases if the forebay elevation drops below the 1590.7 ft end of April target. In response to a recent snow flight that found only 10% remaining snow covered area in the basin, DWR is operating for early refill. Russ Kiefer, Idaho, thanked the COE for responding to the loss of mid-elevation snowpack by storing more water early in the season to support spring migration.

Little Goose. Whenever flows drop to approximately 50 kcfs or less at LGS, TMT coordinates elevated MOP operations to provide sufficient depth for barges at the entrance to the Lower Granite downstream navigation lock, as specified in the FOP. The elevation range over time has been from MOP (633-634 ft) to MOP+1 (634-635 ft) in order to provide at least 15 ft depth at the Lower Granite downstream lock entrance for navigation safety. Baus gave TMT a heads-up that project operators may soon have to resort to the MOP +1 operation during low flows. Half a foot above MOP might suffice, Karl Kanbergs said. Dave Statler, Nez Perce Tribe, asked whether barge sizes have changed recently, and Scott Bettin, BPA, said the barges were built in the 1970s (this problem has existed for years). By next week, inflows are expected to increase. Baus will update TMT on Little Goose operations at the next meeting April 22.

Lower Granite. The ports of Lewiston and Clarkston at the upper end of the pool probably won't ask TMT for a special operations request (SOR) for marina access, as discussed during last week's conference call. Silt has accumulated near the entrance to the marinas at the confluence of the Snake and Clearwater rivers, trapping some sailboats in the marinas. At this point, however, an SOR is unlikely. The boats don't have another place to dock, and the ports are looking for other remedies. In recent years, flow

dependent operations, up to MOP +2 took care of the problem, Karl Kanbergs, COE, recalled.

**4b. Fish. Adults.** Paul Wagner, NOAA, reported. Approximately 10,000 spring Chinook have passed Bonneville to date, a whopping 350% of the 10 year average and 250% of last year's passage at this time. Lower Granite has already passed 60 fish, a nearly unheard of number for this time of year. In 2014 there was one fish, and the 10 year average is zero. Wagner said he suspects the fish may be fleeing an onslaught of sea lions in the Columbia estuary. The problem is so extreme in Astoria that commercial fishermen have deferred further fishing until May, when the sea lions typically leave, because they took so many spring Chinook from fishing nets that fishermen didn't reach their full quota this year.

**Juveniles.** The two-week passage index for yearling Chinook is around 10,000 per day at Lower Granite, which is average for this time of year. Wagner noted that Idaho's preference for deferring flows from Dworshak until later in the season is a good strategy in response to current flow conditions. Steelhead numbers are lower than spring Chinook, which is typical for this time of year.

Joe Skalicky, USFWS, reported on the April 13 release of 1.6 million tule fall Chinook smolts from Spring Creek Hatchery. The first release has an intestinal protozoa, resulting in mortality rates of up to 0.13%. A test on Friday, April 17, will help clarify the extent of the problem. Treatment consists of adding salt water to fish feed, which flushes out the infestation. When the fish reach the salt water of the estuary, the infestation will die. USFWS is considering scheduling the second hatchery release a week or two earlier than the scheduled May 4 release depending on the results of Friday's test. Bettin said the results are needed as soon as possible because the hatchery release will impact the testing schedule of new gatewell modifications for improved FGE at Bonneville. Subyearlings started appearing yesterday, which is typical timing.

**4c. Water Quality.** Tina Lundell, COE, reported. As of April 10, the gauges at all lower Columbia and Snake River projects began operating in accordance with the Fish Operations Plan. All gauges are currently performing well, and issues last week at Lower Monumental have been resolved. There has been only one exceedance since April 10, a TDG reading of 115.7% in the Ice Harbor forebay. Lower Monumental is spilling 30 kcfs which is at the upper end of its flow range.

**4d. Power.** There was nothing to report today.

## **5. Next TMT Meeting**

TMT will meet next on April 22.

<b>Name</b>	<b>Affiliation</b>
Mary Mellema	BOR
Tony Norris	BPA

Tory Hines	DSC
Scott Bettin	BPA
Charles Morrill	Washington
Joe Skalicky	USFWS
Paul Wagner	NOAA
Doug Baus	COE
Dave Statler	Nez Perce
Robin Gumpert	DSC
Bill Proctor	COE
Karl Kanbergs	COE
Laura Hamilton	COE
Tina Lundell	COE
Lisa Wright	COE

*Phone*

Jim Litchfield	Montana
Russ Kiefer	Idaho
Steve Hall	COE
Dave Benner	FPC
Paula Calvert	ODEQ
Margaret Filardo	FPC
Michael Bryant	CBB