

## COLUMBIA RIVER TECHNICAL MANAGEMENT TEAM

August 19, 2015

Facilitator's Summary

Facilitator & Notes, Emily Plummer, 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 August 5<sup>th</sup> and 12<sup>th</sup> Official Minutes and Facilitator's Summary were reviewed and approved.

### **Dworshak / Lower Granite Water Temperature**

Steve Hall, COE-Walla Walla, updated TMT on Dworshak and Lower Granite water temperatures. He noted that due to technical difficulties the most recent model is not yet available on the TMT website, however, it will be posted following the meeting. Temperatures in the Lower Granite tailwater are currently around 68 degrees Fahrenheit and are expected to cool over the next 3-4 days; however, there may be a subsequent rise in the 10-day forecast. Temperatures are expected to reach 68 degrees on August 23<sup>rd</sup>, an outcome that is likely unavoidable. Steve noted that the plan is to drop Dworshak outflow from 5.7kcfs to 5.2kcfs discharge on Saturday, August 22, then hold in order to hit 1,535ft by the end of August, at which point they will transition to the Nez Perce operation. It is expected that the augmentation water will be exhausted by September 20<sup>th</sup>, plus or minus a few days depending on the inflows. Temperatures should be close to 68 degrees throughout the operation, but no exceedances according to the model. It was noted that the smoke from wildfires is likely limiting solar radiation impacts on water temperatures.

### **Operations Review**

#### ***Reservoirs***

Mary Mellema, BOR, reported the Reclamation projects:

- Hungry Horse midnight elevation was at 3,543.7ft with 2.2kcfs outflows; the project is drafting to meet the Columbia Falls minimum flows of 3.5kcfs. Hungry Horse inflows are 437cfs.
- Grand Coulee midnight elevation was at 1,280.6ft, the project is drafting to meet the end of August elevation target of 1,277.7ft.

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

- Libby was at elevation 2,442.0ft, with 6.3kcfs inflow and 7.2kcfs outflow.
- Albeni Falls was at elevation 2,062.3ft, with 5.1kcfs inflow and outflow.
- Dworshak was at elevation 1,543ft with 0.3kcfs inflow and 5.7kcfs outflow.
- Lower Granite average inflow was 19.3kcfs.
- Bonneville average inflow was 138.9kcfs.
- McNary average inflow was 144.9kcfs.

Lisa reported that the Doble testing at Lower Granite was conducted from August 10 to 13<sup>th</sup>, as coordinated with FPOM, and is complete.

#### ***Fish***

Paul Wagner, NOAA, reported on fish. The adult Fall Chinook at Bonneville are off to a strong start this season, with 24,485 passed Bonneville, which is 185% of the 10-year average. Steelhead are behind the 10-year average with 154,895 passed Bonneville. Wild Steelhead are doing better than hatchery Steelhead, totaling around 66,000, or 85% of the 10-year. Lamprey are converting better than normal this year and are at 187% of the 10-year average. Sockeye conversion between Bonneville, McNary and Wells

Island has been poor this year; passage at Bonneville was 211% of the 10-year, with around 510,000 Sockeye, however, only 278,000 passed McNary (103% of 10-year), and 185,000 passed Wells Island (106% of the 10-year). A total of 408 Sockeye passed Lower Granite. The conversion issues are expected to be largely due to warm water temperatures.

Russ Kiefer, IDFG, provided an update on the Sockeye Trap and Haul operation. He noted that a total of 51 Sockeye have been trapped and hauled from Lower Granite to the Eagle Fish Hatchery, and 23 Sockeye were caught and hauled from traps in the basin. Of the 74 fish trapped and hauled, 24 are naturally produced and there have been no mortalities.

Paul also reported on juveniles. He noted that the projects are operating under reduced sampling and 1,000-2,000 sub-yearling Chinook are passing Lower Granite per day; at Little Goose daily numbers are in the hundreds, and less than 100 per day are passing Lower Monumental. Charlie Morrill, WDFW, reported that Columnaris has not been a big issue for the smolts thus far this season.

#### ***Water Quality***

Laura Hamilton, COE, directed TMT to the combined 12-hr average TDG for August (available on the TMT website), noting that there have been issues with the data due to algae clogs on the sensors. She noted that the issue is occurring predominantly on the Snake River gauges; however, it is also happening on Columbia River gauges. The clogging is resulting in incorrect data reporting. It was suggested that the bad data be highlighted in the 12-hr average report so that there is not confusion over which values are bad data and actual exceedences.

#### ***Power Systems***

Nothing to report.

**The next TMT meeting will be a conference call on August 29<sup>th</sup> at 9:00AM.**

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

**August 19, 2015**  
Minutes: Pat Vivian

***1 Introduction***

Representatives of the COE, BPA, Montana, NOAA, Nez Perce Tribe, Washington, Colville Tribe, BOR, USFWS, and others participated in today's TMT meeting. Lisa Wright, COE, chaired the meeting, with facilitation by Emily Plummer, DS Consulting. This summary is an official record of the conversation, not a verbatim transcript.

***2. Review Meeting Minutes – August 5 and 12***

The official minutes and facilitator's summaries for August 5 and 12 were approved as final.

***3. Dworshak Operations***

Steve Hall, COE, reported that temperatures at Lower Granite tailwater have been hovering close to the 68 degrees F standard but are cooling down. There were unavoidable temperature exceedances during the heat spell on August 11-13. The latest modeling was not available to TMT today due to server difficulties, but Hall will post it to today's agenda after the meeting. Lower Granite tailwater temperatures are expected to hover around 68 degrees F for the next 3-4 days, then cool down. The 10-day forecast shows a possible rise in temperatures.

Charles Morrill, Washington, asked whether smog from wildfires is reducing the effects of solar radiation. Hall said yes, but the effect is small, and the haze of particulate matter also traps heat.

Current Dworshak releases are 5.7 kcfs, which the COE will drop to 5.2 kcfs starting August 22 when the cooling trend starts. At these rates, the reservoir should have enough water to reach elevation 1535 ft on August 31, when Dworshak will switch to the Nez Perce operation previously coordinated at TMT.

Dave Statler, Nez Perce Tribe, asked whether this plan will allow sufficient augmentation releases to keep Lower Granite tailwater below 68 degrees F. Hall said it will probably continue to hover close to the trigger like it is doing now. Joe Skalicky, USFWS, asked when Dworshak can be expected to run out of water. The reservoir will probably reach minimum pool elevation sometime around September 20, Hall replied. TMT will revisit Dworshak operations at its next meeting August 26.

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

**4a. Reservoirs.** Mary Mellema, BOR, reported that Hungry Horse is at elevation 3543.7 ft, currently releasing 2.2 kcfs. Inflows are down to 437 cfs. The dam is being operated to meet Columbia Falls minimum flows of 3500 cfs and will most likely draft below 20 ft before end September. Grand Coulee is at elevation 1280.6 ft and still drafting toward an end of August elevation target of 1277.7 ft.

Lisa Wright, COE, reported that Libby is at elevation 2442.0 ft, with inflows of 6.3 kcfs and outflows of 7.2 kcfs. Albeni Falls is at elevation 2062.3 ft, passing inflows of 5.1 kcfs. Dworshak is at elevation 1543 ft with inflows of 0.3 kcfs and releases of 5.7 kcfs. Lower Granite average outflows are 19.3 kcfs. McNary average outflows are 144.9 kcfs. Bonneville average outflows are 138.9 kcfs.

Lower Granite completed double testing on August 10-13, as coordinated at FPOM. The operation ended a day sooner than planned.

**4b. Fish. Adults:** The 2015 fall chinook return to Bonneville is off to a good start with 24,465 fish, which is 185% of the 10 year average, Wagner reported. Steelhead returns to Bonneville are 154,000 to date, which is only 75% of the 10 year average. Of these, 66,000 were wild steelhead, or 85% of the 10 year average. Wild steelhead returns were better this year than returns for the run at large.

Sockeye returns to Bonneville are 510,000 to date, which is a stellar 211% of the 10 year average. However, by the time they reach McNary, the count is down to 278,000, or 153% of the 10 year average. Sockeye returns at Wells Dam are 185,000, or 106% of the 10 year average. This year's sockeye return was a huge disappointment in terms of how many adult sockeye arrived at Bonneville but didn't make it to their spawning destination. . Of 3,000-4,000 Snake River sockeye returns to Bonneville (estimated based on PIT-tag data), only 408 have passed Lower Granite to date. So almost 90% of this year's Snake River sockeye returns were lost en route, likely in large part due to high temperatures.

Russ Kiefer, Idaho, gave an update on IDFG's trap and haul operation to save Snake River sockeye. So far, 51 fish have been trapped and hauled from Lower Granite and 23 have been collected at traps in the basin. As of August 17, there were a total of 74 fish, and more are still coming into the basin. Of these, 24 were wild sockeye, or almost a third. Kiefer said Idaho is happy with the regional effort in this challenging year, which saved the fish with the best genetic traits for future runs. All of the transported sockeye are still alive. Morrill asked about the condition of transported fish, and Kiefer said there have been no reports of fish arriving at the hatchery in bad condition. Skalicky asked what the historical peak spawning time for sockeye is, and Kiefer said late September.

Wagner reported that lamprey are doing well this year with 36,000 returns to Bonneville, which is 187% of the 10 year average. They are converting to other dams at a better rate than that seen in recent years, although it is far less than 100%.

Juveniles: Subyearling passage is drawing to a close for 2015, Wagner reported. Lower Granite is passing 1,000-2,000 subyearlings per day, while Little Goose is passing a few hundred, and Lower Monumental less than 100. Counts for the lower Columbia River are not representative of the full run because all projects have reduced sampling rates due to warm temperatures to minimize stress on fish. Charles Morrill, Washington, said columnaris has not been a major issue yet in 2015 like in previous years.

**4c. Water Quality.** Laura Hamilton, COE, reported. A number of monitoring gauges have gotten clogged with algae, sand or dirt, predominantly those on the Snake River. However, the John Day gauge is experiencing the worst of this phenomenon, which causes TDG readings to drift downward. The COE district offices are working on resolving it. Wagner asked whether the highest reading of 126.9% TDG saturation at John Day was due to gauge malfunction. Hamilton said yes, it was a torn membrane, but because the Washington state water quality standard is based on a consecutive rolling 12 hour average, the gauge malfunction was counted as an exceedance on both August 10 and 11 although it lasted about 5 hours on August 10. Scott Bettin, BPA, suggested flagging exceedances that are the result of bad data so they are not confused with actual exceedances.

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

## **5. Next TMT Meeting**

TMT will meet next on August 26.

<b>Name</b>	<b>Affiliation</b>
Julie Ammann	COE
Scott Bettin	BPA
Jim Litchfield	Montana
Paul Wagner	NOAA
Lisa Wright	COE
Laura Hamilton	COE
Dave Statler	Nez Perce Tribe

*Phone:*

Charles Morrill	Washington
Sheri Sears	Colville Tribe
Mary Mellema	BOR
Joe Skalicky	USFWS
Steve Hall	COE
Dave Benner	FPC
Mike Shafley	Snohomish
Paula Calvert	ODEQ
Russ Kiefer	Idaho
Tory Hines	DSC