

COLUMBIA RIVER TECHNICAL MANAGEMENT TEAM

October 5, 2011

Facilitator's Summary

Facilitator: Robin Gumpert

The following notes are a summary of issues that are intended to 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.

Meeting Minutes/Notes

With no edit suggestions on the 9/28 Official Meeting Minutes or Facilitator's Notes, they were considered final.

Preliminary Reach Survival Estimates

Paul Wagner, NOAA, shared a memo containing preliminary reach survival estimates for 2011. These numbers were subject to change based on further analysis. Walking through all the tables, Paul summarized that:

- Yearling Chinook survival was close to average compared to the '93-2010 mean.
- Juvenile steelhead estimates were higher than the mean but not as high as 2009 or 2010.
- Estimated survival of Snake River sockeye from Lower Granite to McNary was 65.9% compared to the mean of 60.2%. Poor detection in the Lower Columbia River made it impossible to estimate Snake River sockeye survival to Bonneville.
- 35% wild and 41% hatchery Chinook were transported; 36% wild and 38% hatchery steelhead were transported. These percentages are low compared to historical numbers.

The memo notes several factors that might have impacted detection and overall survival estimates. High flows resulted in increased debris, which caused problems for dam operations and juvenile bypass systems at several projects. A transformer at Little Goose Dam was damaged and resulted in the powerhouse being shut down for approximately seven days. The screens were pulled at Bonneville beginning about the middle of May and the trawl PIT tag detector had debris issues as well. These factors will be considered when producing the final report.

Questions were raised about the analysis, including how Clearwater fish are accounted for in the estimates and the overlay of natural conditions, system configuration and operations on the survival estimates. It was suggested that NOAA's COMPASS model includes these types of analysis and some of this analysis could be shared at the TMT Year End Review.

Spill Priority List

Doug Baus, COE, shared a draft proposed winter spill priority list for review and approval by TMT. The COE's goal is to put the new list in to effect next week upon FPAC review and discussion at the 10/12 TMT meeting. The intent is to put water where there is potential juvenile passage of overwintering fish in the Snake and it is expected

that involuntary spill would be infrequent and short in duration, if at all. This list would be in effect through the end of the year, and revisited in early 2012. TMT discussed the list and offered initial thoughts. Laura Hamilton, COE, shared that involuntary spill during this time typically occurs as a result of lack of turbine for line outages/maintenance, and sometimes due to lack of load.

Action/Next Steps: FPAC will review the list and be prepared to offer comments/approval at the 10/12 TMT meeting.

Water Management Plan

Doug Baus, COE, said the 2012 Draft WMP had been posted to the TMT web page. Comments on this draft are due 10/31 and will be posted to the web. A second draft will be posted by 11/15, followed by another comment period until the end of November, and the final WMP will be posted by 12/31. TMT will hear another status update on the WMP in early November.

Operations Review

Reservoirs – Mary Mellema, Reclamation, reported on projects: Grand Coulee was at elevation 1285.1’. Hungry Horse was at elevation 3549.66’ and operating 2.1 kcfs outflows to meet Columbia Falls minimums. Doug Baus, COE, reported on projects. Libby was at elevation 2446.92’ with 6.2 kcfs inflows and 4.0 kcfs outflows. Albeni Falls was at elevation 2058.70’ with 11.4 kcfs inflows and 26.7 kcfs outflows. Dworshak was at elevation 1518.8’ with 1.2 kcfs inflows and 1.8 kcfs outflows. Lower Granite outflows were 30.7 kcfs; at McNary were 104.2 kcfs and at Bonneville were 101.1 kcfs.

Fish – Paul Wagner, NOAA, reported on fish. Subyearling Chinook at Lower Granite continued to show “reasonably high” counts, around 200/day, and 400/day at Bonneville. The adult fall Chinook total season count was 378,000. Jack total counts were 75,000, steelhead counts totaled 361,000 and sockeye counts totaled 185,000. At Lower Granite, Fall Chinook adult counts were 21,500, well above the 10-year average; jacks were 15,000 and steelhead were 134,000 (also above the 10-year average).

Water quality – Nothing to report.

Power system – Nothing to report.

TMT Schedule

- 10/12 – brief TMT meeting to discuss the winter spill priority list
- 10/26 – face to face meeting, agenda TBD

Columbia River Regional Forum
TECHNICAL MANAGEMENT TEAM OFFICIAL MINUTES

October 5, 2011
Notes: Pat Vivian

1. Introduction

Today's TMT meeting was chaired by Doug Baus, COE, and facilitated by Robin Gumpert, DS Consulting. Representatives of the Nez Perce Tribe, BPA, COE, NOAA, Montana, USFWS, Idaho, BOR and others attended. This summary is an official record of the proceedings, not a verbatim transcript.

2. Review Meeting Minutes for September 28

There were no changes today to the meeting minutes or facilitator's notes so they were deemed final.

3. Preliminary Reach Survival Estimates.

Paul Wagner, NOAA, reported on the preliminary report linked to today's agenda. Estimates of juvenile survival in 2011 could see a 3-4% increase or decrease when final numbers are released at the end of the year.

In-river estimates. Yearling spring chinook arriving at the Lower Granite trap from all reaches had a 94.3% survival rate in 2011, compared to 93.9% average survival for the past 15 years. The trap is located at the head of Lower Granite reservoir. For the entire lower Snake reach from the Granite trap to McNary, the survival rate was 74.5%, compared to a 15-year average of 73.7% and a 2010 survival rate of 78.7%. From Lower Granite to Bonneville, survival was 51.7% in 2011 compared to a 15-year average survival rate of 51.9%. From the trap to Bonneville, survival was 48.8% this year, compared to a 15-year average survival rate of 49.3%.

Steelhead in 2011 fared about the same as the 10-year average on a project-by-project basis. From the trap to Lower Granite, the survival rate was 98.6%; last year's rate wasn't much higher. The lower Snake River reach had 69% survival, which was better than the 15-year average of 62.5% but not as good as 77% survival in 2010, or 79% survival in 2009. Survival from McNary to Bonneville was 83.5%, much better than the 15-year average of 63.2% and a little better than 2009 and 2010 survival rates. For the whole reach from the trap to Bonneville, survival was 56.9%, much better than the 15-year average but not as good as 2010.

There was general acknowledgement that although 2011 offered plentiful water supplies, it was too much and caused a lot of debris to clog the system.

Combined with a complete powerhouse outage at Little Goose for 7-9 days, this meant that passage conditions in 2011 were not the best despite abundant flows.

Another factor that skewed the results, Wagner said, is that the estimates themselves are based on detected fish. This reflects what is measured but raises the question, did we measure everything? Little Goose, Bonneville and the Lower Granite trap all had operational issues in 2011 that affected detection probability.

The report gave no sockeye estimates because the screens had to be pulled in spring 2011 due to debris issues, Jim Litchfield, Montana, noted. Dave Statler, Nez Perce Tribe, wondered how combinations of detection histories for individual fish are represented in the report. Fish must have been detected at one other point besides Bonneville in order to be included in the Bonneville estimate, Wagner said. They are marked at the Lower Granite trap, Litchfield added. Statler and Russ Kiefer reported that fish are also marked at hatcheries and smolt monitoring project traps run by Oregon, Idaho and the Nez Perce Tribe.

Mid Columbia chinook and steelhead had a survival rate of 53% this year compared with a 14-year average of 55%, Wagner said. Rates in 2009-2010 were similar, although last year's survival rate was slightly higher. From McNary to Bonneville, chinook and steelhead survival rates were 70% in 2011, a little lower than the 14-year average and in recent years.

Snake River sockeye from Lower Granite to McNary had a survival rate of 65% this year vs. 60% for the 14-year average, but lower than 2009 and 2010 survival rates. Upper Columbia River sockeye from Rock Island to Bonneville had a 51% survival rate this year, better than the 2010 rate and the 15-year average.

Transported fish. Transport rates were significantly lower this year than historically. The 2011 wild chinook transport rate was 53%; for hatchery chinook, 41%. The wild steelhead transport rate was 36% and the hatchery rate, 38%. Both transport rates are similar to last year, which had a higher proportion of spill. In 2006, another high flow year, transport rates for steelhead were much higher at 70-80% compared to 43% for 2011. These fish will be tracked for the next three years to see how they fare. Ocean conditions are looking good this year, Wagner added.

Dave Statler asked whether this analysis includes steelhead from the Clearwater River and Dworshak Dam. Wagner showed TMT a breakdown of transport rates for individual hatchery releases and pointed out a comparison between 1997 and 2011, which were both high-flow years. Tony Norris, BPA, noted that the hydro system had no surface bypasses in 1997 so comparisons between the two years are moot. One thing that came up this year was a Salmon Manager request for more spill on the Snake, but the only way to accomplish that would have been to operate the Snake projects outside MOP. Norris suggested that in a high-flow year, MOP might not be the biggest driver of survival. Further

discussion of detection and reporting protocols used in this report will continue offline and at the TMT year end review in December.

4. Spill Priority List

The COE proposed a wintertime spill priority list today which is posted to the TMT agenda. Baus acknowledged that FPAC had not yet had an opportunity to discuss the proposal as of this meeting. He said the reason for the proposed change in spill priorities is to provide biological benefits for overwintering fish, particularly juveniles. The following is the proposed wintertime spill priority list from now until December 31, 2011: LWG, LGS, LMN, IHR, MCN, JDA, TDA, BON, DWR, CHJ.

The Salmon Managers gave some preliminary responses to the list, with the caveat that FPAC discussion is needed. Paul Wagner said the order looks fine for now. Russ Kiefer observed that at this time of year, spilling fish in the lower Snake River may not be as beneficial as in the lower Columbia River where it might help them reach the estuary. Tony Norris cautioned against spill during the fall chum operation at Bonneville. Laura Hamilton, COE, observed that winter spill typically occurs from January to March, most often on the lower Columbia and occasionally on the Snake; there is typically little or no spill in the October-December timeframe. Generally the causes of involuntary spill in winter are lack of load, lack of turbine and line outages.

TMT will revisit the proposed spill priority list at next week's TMT, after which the COE plans to implement it if TMT does not object.

5. Water Management Plan

Draft 1 of the WMP has been posted for TMT review, with comments due by October 31, Baus said. The COE will reissue draft 2 on November 15 after considering comments received from TMT participants. Comments on draft 2 of the WMP are due by COB November 30. The final WMP will be posted by December 31. Jim Litchfield said the draft looks good, but TMT should discuss it nevertheless because a review based on individual comments without live conversation could result in missed opportunities. TMT will next revisit the WMP in early November when the initial comment period is over.

6. Operations Review

Reservoirs. Hungry Horse is at elevation 3549.66 feet, releasing 2100 cfs to meet the Columbia Falls minimum. Grand Coulee is at elevation 1285.1 feet. Libby is at elevation 2446.92 feet, with inflows of 6.2 kcfs and releases of 4 kcfs. Albeni Falls is at elevation 2058.7 feet with inflows of 11.4 kcfs and releases of 26.7 kcfs. Dworshak is at elevation 1518.8 feet, with inflows of 1.2 kcfs and releases of 1.8 kcfs.

Lower Granite discharges are 30.7 kcfs. McNary discharges are 104.2 kcfs. Bonneville discharges are 101.1 kcfs.

Fish. Juveniles: Bonneville counts are down from 1,000 fish per day a week ago to 400 fish per day, Paul Wagner reported. Little Goose has been passing 100 to 300 fish per day over the past week. Juveniles at Lower Granite and Lower Monumental are being collected at the bypasses, so there are no fish to report at those sites.

Water quality. There was nothing new to report today, as all the forebay gages are turned off for winter. Tailwater gages are still collecting TDG data, Laura Hamilton reported. Wagner said water temperatures are average for this time of year.

Power. There was nothing to report today.

7. Next Meeting

The next regular TMT meeting will be held at NOAA on October 12, with followup on the winter spill priority list the COE proposed today. The next regular TMT meeting will be on October 26.

Name	Affiliation
Dave Statler	Nez Perce
Tony Norris	BPA
Lisa Wright	COE
Paul Wagner	NOAA
Doug Baus	COE
Laura Hamilton	COE
Kim Johnson	COE
Jim Litchfield	Montana
Scott Bettin	BPA

Phone:

Dave Wills	USFWS
Russ Kiefer	Idaho
Mary Mellema	BOR
Margaret Filardo	FPC
Dave Benner	FPC
Steve Hall	COE Walla Walla
Barry Espenson	CBB
Bruce McKay	hydropower consultant
Richelle Beck	Grant PUD