COLUMBIA RIVER TECHNICAL MANAGEMENT TEAM

February 19, 2014

Facilitator's Summary

Facilitator: Emily Plummer, Notes: Robin Gumpert, 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.

Meeting Minutes

With no suggested edits to the 1/15 and 2/5 Official Minutes and Facilitator's Summaries, the notes were considered final.

Vernita Bar Update

Russell Langshaw, Grant County PUD, updated TMT on Vernita Bar. Russell reported 880 temperature units from initiation of spawning and that emergence was expected to occur the third week of March. He noted a discrepancy in gauge readings and said they were working with USGS to recalibrate; they use the USGS gauge as a requirement for discharge. With no further questions, Russell said he would provide an update to TMT at the next meeting.

Water Supply Forecasts

Doug Baus, COE, and John Roache, BOR, shared the official February final forecasts, as follows:

- The Dalles April-August: 72MAF (83% of average)
- Lower Granite April-July: 17 MAF (88% of average)
- Dworshak April-July: 2274 kaf (93% of average)
- Grand Coulee January-July: 49 MAF (82% of average)
- Libby April-August: 5192 kaf (88% of average)
- Hungry Horse April – August: 2081 kaf (107% of average)

A note was made that the water supply forecasts had improved (e.g. 8 MAF at The Dalles) since the February finals, and the outlook looks better for March. Similarly, Doug reported that the SNOTEL site data (details of which are posted as a link to today's agenda) was showing an improvement in snow/water equivalents.

2014 FCRPS Supplemental Biological Opinion Update

Paul Wagner, NOAA, presented highlights of changes to the 2014 Supplemental BiOP that are relevant to TMT. His PPT presentation can be found as a link to today's agenda. Paul went in to more detail on the changes and suggested that many of the items he highlighted had the potential for additional in-season management discussions by TMT. The following bullets summarize discussion/questions/comments from TMT:

- Transition from Spring to Summer spill on the Lower Snake – this is a criteria change which Paul acknowledged NOAA had received comments on from parties at TMT. TMT will engage in future discussions about the criteria, how to measure it, and the implications for spill on the Lower Snake.
    - It was clarified that water travel time can be assessed by the Corps Walla Walla District and the Fish Passage Center, and TMT will take a close look at these estimates during their deliberations to make sure everyone is in agreement on the information.
    - The biological rationale for this criteria change, Paul said, is to ensure that the yearlings are receiving adequate spill. Comparatively, the status of sub-yearling Fall Chinook (who receive the benefit of Summer spill) looks much better than that of yearlings. To illustrate this point, Paul noted that adult passage estimates of Fall Chinook at Lower Granite Dam in 1992 were 79 wild adults, and in 2013 they were several thousand.
- Re: Planning dates for juvenile transport linked to the goal of transporting approx. 50% of juvenile steelhead: Paul said the dates listed are the default and that an alternative start date and operating plan could be considered. The intended effect of this change to the BiOp is to transport more steelhead.

    - A comment was made that other factors and species should be considered during in-season management.
- Re: Spill at Snake River in August: new trigger criteria include end of spill when sub-yearling counts fall below 300 for three consecutive days, and resuming spill when collection is greater than 500 per day for two consecutive days.
    - A question was asked about collection efficiency and a concern was raised that this new criteria might create an effect of turning spill on, off and on again – which many in the region would be opposed to.
    - Paul suggested the region look at information as it develops (and perhaps a retrospective of what would have happened in previous years if this criteria were in place), and be prepared with an alternative procedure to address the on/off/on spill concern should a need arise to make adjustments per in-season adaptive management. The group looked at an index of collection counts at Lower Granite from a past year to get a sense of the impact.
    - A concern was raised that the impact from implementing the new criteria could be less spill in the Summer, an action in opposition to other objectives in place for cooling the Snake River system. Again, all factors should be considered during in-season management.

The Facilitator acknowledged this was the start of the discussions and that TMT will continue to deliberate on these issues throughout the migration season.

Chum Update

Charles Morrill, Washington, and Doug Baus, COE, said the chum operation is going well and continuing to meet its targets. TMT will continue to receive updates at future TMT meetings.

Operations Updates

Reservoirs – John Roache, BOR, and Lisa Wright, COE, reported on their respective projects. Hungry Horse was at elevation 3530.5 feet, with 2.7 kcfs outflows and a water supply forecast of 107%. Grand Coulee was at elevation 1272.3 feet and operating to meet chum targets and protection flows for Hanford Reach. Libby was at elevation 2423.5 feet, with 3.4 kcfs inflows and 4 kcfs outflows. Albeni Falls was releasing 17 kcfs outflows. Dworshak was at elevation 1527.4 feet with 4.4 kcfs inflows and 1.4 kcfs outflows. Lower Granite average outflows were 32.9 kcfs; McNary outflows were 110.1 kcfs; and Bonneville outflows were 160.7 kcfs.

Fish – Paul Wagner, NOAA, reported that the Spring Chinook season forecast was 190,000. Charles Morrill, Washington, offered to share the final TAC technical staff report with TMT when it is complete. Overall, he said, the forecasts for Spring Chinook look good.

Water Quality – Scott English, COE, reported that the Cascade Island gauge repairs are being completed so the gauge will be up and running by the end of February, in time for spill season.

Power System – Nothing to report.

Next Meeting, March 5, 9:00 am

Agenda items include:

- Follow up on BiOp issues
- Vernita Bar Update
- Chum Update
- Other?

Columbia River Regional Forum
TECHNICAL MANAGEMENT TEAM – OFFICIAL MINUTES

February 19, 2014
Minutes: Pat Vivian

1. Introduction

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

2. Review Meeting Minutes

There were no comments on the meeting minutes or facilitator's notes for the January 15 or February 5 meetings so they were deemed final.

3. Vernita Bar Update

Russell Langshaw, Grant PUD, reported that 800 temperature units have accumulated since initiation of spawning. Emergence is expected to occur in the third week of March. At present there are operational constraints based on protection flows needed to meet USGS gage requirements. Due to a discrepancy between the USGS gage and actual discharges at Priest Rapids, the dam is now releasing 68 kcfs to meet the USGS gage requirement of 65 kcfs. The equipment has been recalibrated to bring the two readings closer together.

4. Update on Water Supply Forecast

Baus presented the COE official forecast for individual dams:

- The Dalles (April-August) – 72 MAF, 83% of average.
- Lower Granite (April-July) – 17 MAF, 88% of average.
- Dworshak (April-July) – 2274 KAF, 93% of average.
- Grand Coulee (January-July) – 49 MAF, 82% of average.
- Libby (April-August) –5192 KAF, 88% of average.
- Hungry Horse (May-September and April-August) – both forecasts are 107% of average (2081 KAF for April-August and 1819 KAF May-September).

The RFC 10-day forecast shows precipitation increasing after a dry spell over the next few days, Tony Norris said. According to today's forecast, The Dalles water supply rose from 82% to 92% of average, Lisa Wright reported.

According to SNOTEL station readings of snow-water equivalents throughout the basin, the Oregon Cascades continue to be dry at 50-60% of average. However, some sites are well above average and the Rockies have 133% of average.

5. 2014 Supplemental Biological Opinion Update

Paul Wagner, NOAA, gave a presentation and led a discussion of 2014 BiOp operational changes relevant to TMT:

- *Camas-Washougal gage is no longer used for TDG compliance.*

  This topic of discussion on numerous occasions no longer applies.

- *Juvenile fish transport at MCN is no longer planned to be used in spring as a low flow contingency measure or during the summer season.*

The prior BiOp called for spring transport in low flow years when MCN flows were projected to be less than 125 kcfs. Now the default operation will be no spring or summer transport at McNary unless TMT requests it.

- *Default plan is to provide spill at Snake projects in all water years.*

This change addresses contingencies in the 2008 BiOp and supplemental 2010 BiOp that tended to create confusion about whether to halt spill whenever Snake flows dropped below 65 kcfs. The new plan calls for spill at Snake projects during migration season in all years regardless of flow conditions.

- *The criteria for transitioning to summer spill at lower Snake projects changes from when subyearling chinook collection at LGR exceeds 50% for a 3-day period after June 1 to a 95% juvenile spring migrant passage criteria at LGR, incremented by an estimate of water travel time for LMN.*

The difference between spring and summer spill at Lower Granite is 2 kcfs (20 kcfs spring and 18 kcfs summer) so this new provision will have negligible effects there, Wagner said. At LGS there will be no effect because spill remains 30% of river flows through spring and summer. However, at Lower Monumental spill drops from gas cap spill (generally 27 kcfs) to 17 kcfs for summer, a potentially significant change in passage conditions. This new operation will stagger the start date of summer spill from LGR downstream to factor for fish travel time (based on real time flow conditions and calculation of water travel time). For example, if LGR transitions to summer spill on June 6, an estimated water travel time of 6 days would initiate the transition to summer spill at LMN on June 12.

There was discussion of whether to use PIT tag data for estimating spring juvenile migrant counts and percentages rather than estimating the travel time. It's an option, but sockeye PIT detections are so low it would only add confusion to the estimate, Wagner said. Basing the count on subyearling chinook collection was a carry-over from the 2008 BiOp, but in fact this never actually occurred; the court-ordered operations in the FOP specified a hard start date of June 21 for summer spill. This situation has created confusion over the years over as to when to make the transition, with last year's TMT discussion revolving around LGR.

David Wills, USFWS, asked what specific water travel time criteria would be used to determine the dates associated with the change from spring to summer spill rates at SR projects. Wagner suggested that COE and FPC water travel time information could be combined. This will be a topic of further discussion at TMT.

Dave Statler, **Nez Perce Tribe**, questioned the biological rationale for the change to lower spill for summer migrants. Subyearlings don't need as much spill as spring migrants, Wagner replied. Large hatchery releases of subyearling chinook in May have created an expectation that subyearlings will outnumber yearling chinook migrants by June 1. Charles Morrill, **Washington**, said there have been significant timing shifts in peak subyearling migration since the '80s, so defining the criteria for a 95% spring migrant passage date needs to be done collectively by the region. Erick Van Dyke said **Oregon** shares the concerns expressed by Nez Perce Tribe and Washington regarding the biological rationale for transitioning to summer spill based on 95% juvenile spring passage. The goal, Morrill emphasized, is to not sacrifice protection for any component of the run.

- *Planning dates for initiating juvenile transport are linked to a goal of transporting about 50% juvenile steelhead from April 21-25 at LGR and up to 4 and 7 days later at LGS and LMN. An alternative start date and operating plan will be considered.*

Juvenile steelhead transport estimates under prior BiOps were from 70-90% or more in low flow years, Wagner said. In average flow years 60-70% of juvenile steelhead were transported. When the 2000 BiOp eliminated a complex spill program in favor of spill through the entire season, the rates of steelhead transport dropped to as low as 20% with an average of about 40% over the past 7 years. This led to court-ordered spill from April 21-May 1 with the purpose of increasing steelhead transport percentages. Proposing an earlier start date of April 21-25 is a continuation of that effort, Wagner said.

There was discussion of run timing at LGS and LMN and of the protocol for TMT to change the transport dates from April 21-25. **Nez Perce Tribe, Oregon** and **Washington** representatives expressed concern about influences this provision might have on other listed species besides steelhead. When there are conflicting fisheries goals, Bill Proctor said the COE will need TMT to provide context for making operational decisions based on the goal of transporting 50% of juvenile steelhead. We will need to look at data for all species to implement this provision, and there will be differences of opinion, Morrill said.

6. Spill at Snake projects will continue in August until subyearling collection counts fall below 300 per day for 3 consecutive days at collector projects. If subyearling collections increase to exceed 500 fish per day for 2 consecutive days, spill will resume at that project until counts again drop below 300 per day for 3 consecutive days.

This bullet point elicited extended TMT discussion. Wagner recalled the court ordered spill program has extended spill through August 31 until this year, making this provision of prior BiOps moot. If it is actually implemented in 2014, this will be the first time.

Russ Kiefer, **Idaho**, expressed concern about the potential biological effects of turning spill on and off as fish counts fall and rise again. The cutoff point should be based on a passage estimate, not a collection number. That would provide a clearer picture of the true effects on passage.

Laura Hamilton, **COE**, wondered how toggling back and forth between spilling and not spilling will affect operations at LMN, which will probably be the first Snake dam to stop spilling under this plan. There was discussion of how spill at subsequent dams will be handled. FPC collection counts at LGR last August served as a prototype for TMT discussion of what this operation might actually look like. Tom Lorz, CRITFC, pointed out that paragraph 4 on page 347 of the 2014 supplemental BiOp provides details on how the operation would be implemented progressively from LGR downstream.

These criteria for spill on the Snake raise concerns about protecting the entire spectrum of the run without sacrificing early or late migrants, Statler commented. Baus asked what the Salmon Managers would consider appropriate criteria for August spill on the Snake. The **Nez Perce** believe spill should continue at least through August 31 at all projects, rather than cutting back or eliminating spill at some projects. Water reserved primarily for cooling during early September could be used if needed to extend spill past August 31. **Oregon** and **Washington** expressed similar concerns about protecting the entire run.

6. Chum Update

There has been adequate water supply to maintain a minimum 11.5 foot tailwater elevation at Bonneville for chum, Morrill reported. There are no expectations of a shortage through the end of emergence. The Salmon Managers will continue to track emergence-related data and keep the Action Agencies informed.

7. Operations Review

a. Reservoirs. Hungry Horse is at elevation 3530.5 feet, releasing 2.7 kcfs for Columbia Falls minimums. The water supply forecast for the basin is 107% of normal and snowpack is 114% of normal. Flood control releases are not expected before the March forecast. Grand Coulee is at elevation 1272.3 feet, operating for chum and Hanford Reach protection.

Libby is at elevation 2423.5 feet with average inflows of 3.4 kcfs and releases of 4 kcfs. Albeni Falls is releasing 17 kcfs. Dworshak is at elevation 1527.4 feet with inflows of 4.4 kcfs and releases of 1.4 kcfs.

Lower Granite daily average outflows are 32.9 kcfs. McNary daily average outflows are 110.1 kcfs. Bonneville daily average outflows are 160.7 kcfs.

b. Fish. There is nothing to report yet, Wagner said. The spring chinook forecast for Bonneville is about 227,000 adult returns, Morrill said. He will provide more information when the technical staff reports are released.

c. Water Quality. The Cascade Island gage repair should be done by end March in time for spill season, Scott English, COE, reported.

d. Power System. There was nothing to report today.

8. Next TMT Meeting

The next TMT meeting will be March 5 in person, with chum operations and continued BiOp discussion on the agenda.

Name	***Affiliation***
Doug Baus	COE
Charles Morrill	Washington
Erick Van Dyke	Oregon
David Wills	USFWS
Lisa Wright	COE

Tony Norris	BPA
John Roache	BOR
Russ Kiefer	Idaho
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