

COLUMBIA RIVER REGIONAL FORUM

TECHNICAL MANAGEMENT TEAM

July 29, 2009 Meeting

FACILITATOR'S SUMMARY NOTES ON FUTURE ACTIONS

Facilitator: Erin Halton

Notes: Christa Leonard

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.

Review of Minutes/Agenda

No changes were made to the July 22nd facilitator's summary notes or official meeting minutes and both sets were considered final.

Review Libby Operations

Joel Fenolio, COE, reviewed last month's data with TMT members. He reported that Libby outflows were at 7 kcfs and that the COE plans to hold through August, and then shift down to 6 kcfs through September. Elevation is currently at 2439.25'. Libby's elevation is projected to be 2441.8' during the first week of August.

Action/Next Steps: TMT will revisit Libby operations in two weeks. The COE planned to post graphs regarding Libby operations to the agenda after the meeting.

Review Dworshak Operations

Dan Feil, COE, reported that Dworshak operations had outflows of 12 kcfs and spill levels were ranging between 2.1-2.2 kcfs. Dworshak outflow temperatures had been holding well to the 41 F degree target discussed at the last TMT meeting, but the last few days of hotter weather had driven temperatures into the 42-43 F degree range.

Temperatures at Lower Granite tailwater were 67.9 F degrees as of 9 am the morning of the meeting.

Paul Wagner, on behalf of the Salmon Managers, presented SOR 2009-04, posted as a link on the agenda. Wagner acknowledged that temperature reduction was not possible to meet the required 40 degree Dworshak outflow temperature mark as outlined in the SOR; the SOR requested that the COE immediately increase total outflow to 14 kcfs when there are three consecutive hours of 68.0 degrees F or higher. He acknowledged criteria for backing off from increased outflows/spill had not been included in the SOR and said the Salmon Managers were open to discussion of this with TMT members.

One option considered by TMT was to reduce outflows to 12 kcfs if temperatures drop to 67 degrees F. TMT members acknowledged that minimizing the time spent at 14 kcfs would allow for more time at 12 kcfs before ultimately shifting to 10 kcfs. However, as temperatures had already reached 67.9 degrees, it was clear that temperatures would most certainly reach the 68 degrees F criteria on 7/29. TMT members also noted that Hells

Canyon is releasing more warm water over the next few days; TMT recognized that those releases may shift and will need to be factored into future models. Kyle Dittmer, CRITFC, suggested watching the 10 day weather trends very closely.

Feil said that the COE proposed increasing Dworshak outflows to 14 kcfs at 11:00 am and suggested a conference call at 1 pm on 7/31 would allow for continued discussion and for updated model runs. TMT members present were polled on the COE's proposed response to the SOR:

- NOAA: support the COE's response
- BOR: support the COE's response
- BPA: support the COE's response
- USFWS: support the COE's response
- ID: support the COE's response
- OR: support the COE's response
- MT: support the COE's response
- Also: CRITFC: support the COE's response

Action/Next: The COE will increase outflows to 14 kcfs at 11 am; they will closely monitor outflows/temperatures and will rerun the models so that updated results can be discussed during a TMT conference call at 1:00 pm on Friday 7/31 (and possibly for another TMT call on Monday 8/3.)

Seasonal Treaty Fishing Review:

Kyle Dittmer, CRITFC, referred TMT to memo posted as link to the agenda, reviewing the four SOR's that were submitted during the five week 2009 Summer Treaty Fishing season. Pool observations were noted as follows; Bonneville averaged 74% compliance (down 7% from last year). Dittmer noted that The Dalles had the "widest swing" in compliance this year compared to last year; he noted that The Dalles had the fewest fishing nets in its pool. He also reviewed catch data and noted that navigation issues at The Dalles in July a likely contributor to swing. It was noted however that overall it was a great season and he thanked the COE for their cooperation, adding that COE specification of soft and hard constraints are helpful for operators and appreciated by Tribes. He was pleased to announce that local law enforcement reported no net damage. Both CRITFC and COE acknowledged that the historical agreement was 10 years old and that Treaty Fishing has evolved over the years adding new seasons. Tribes are pleased with the progress over the last couple of years and noted a desire to have good, consistent fishing conditions and are looking forward to continued progress. Kyle suggested that given the new CRITFC leadership, it may be time for a new MOA.

Dan Feil, COE, referred TMT to a document posted as a link to the agenda, summarizing how well the COE achieved their operations as they responded to each SOR. Doug Baus, COE, presented this disposition data to TMT members. He noted over the 803 total project hours, 99.7% of the time the COE met all hard constraints. Karl Kanbergs, COE, reported that a barge navigation issue on July 9th at 1700hrs may have affected The Dalles pool and been the reason the COE compliance was just under 100%.

McNary Emergency Operations Follow Up

Dan Feil, COE, recalled the SOR issued to address juvenile mortality rates during transportation. He reported that operations did go up to gas cap spill for a couple of days and that as stated in an email sent out by the COE on 7/27, juvenile transport did begin daily starting Friday 7/24. Feil said that mortality rates had dropped significantly and the temperature gradient has been remaining under 3 degrees C and fish are not believed to be experiencing thermal shock. Dave Wills, USFWS, asked if the exact problem had been identified. Scott Bettin, BPA, noted that transportation drew mainly from the North side, and Feil explained that rapid water warming near the project and on the South side (where currents are slower) led to warmer water moving through the bypass system. The question was raised regarding whether there was a lesson to be learned for future year's operations: Karl Kanbergs, COE, suggested that there may need to be changes made to the Fish Passage Plan. FPOM will likely need to discuss this issue and TMT may revisit this discussion at a future meeting.

Operations Review

Reservoirs: Grand Coulee was at elevation 1286.5'. Hungry Horse was at 3558.87', with outflows of 2.36 kcfs. Libby was at elevation 2440.65', with inflows of 8.5 kcfs and outflows of 7.0 kcfs. Albeni Falls was at elevation 2062.3', with inflows of 21.8 kcfs and outflows of 15.1 kcfs. Dworshak was at 1576.4' with inflows of 1.3 kcfs and outflows of 14 kcfs; Steve Hall, COE, mentioned that the leak in Unit 3 has not progressed to the point of needing pumps, which is good news. Average flows at Lower Granite flows were 40.4 kcfs, McNary had flows of 173.7 kcfs, and Bonneville flows were 165.2 kcfs.

Fish: Paul Wagner, NOAA, referred to Fish Passage Center website data; adult passage counts are continuing to decrease overall, but Steelhead, Sockeye and Lamprey are increasing. Subyearlings were passing Bonneville at 15,000, per day and about 1000 per day at Lower Snake River projects. DART seasonal data showed total adult passage of 177,000 Sockeye. Smolt passage was tapering off at McNary, and numbers were below the 10 year average.

Other: Paul Wagner, NOAA, noted that spill at Bonneville reduced to 70kcfs. The COE responded that TDG levels at Camas/Washougal were reading 119%, likely due to hot weather temperatures and lack of wind. The COE said that it proposed setting the Bonneville spill at no lower than 75kcfs as an interim operation and if TDG levels rise above 120%, the COE will need to revisit and consider dropping below 75 kcfs. Ron Boyce, OR, responded that 75 is acceptable for daytime, but also recognized technical issues of Camas/ Washougal gauge and the relationship to Bonneville spill management. The COE asked TMT members to weigh in on setting 75 kcfs as the lowest level of spill at Bonneville as an interim operation:

- BPA: no objection to the 75 kcfs as an interim operation
- BOR: no objection
- NOAA: no objection to the 75 kcfs as an interim operation; recognize this as a reasonable step per the FOP and suggest that more work is needed on this issue.
- USFWS: no objection, but have the same concerns as expressed by NOAA.
- MT: no objection to 75 kcfs as interim

- ID: no objection to 75 kcfs as an interim - but disappointed that technicalities are a factor in providing less than could be provided for fish.
- OR: would prefer to spill to gas cap at night...*[NOTE: OR asked what other TMT members had said and then phone line dropped off at this point. OR connected with COE staff by phone following the meeting and had no objection to the 75 kcfs spill as an interim operation.]*
- Also: CRITFC: no objection to the 75 kcfs as an interim, but don't want to go below 75 kcfs

Power System: Record breaking temperatures in Portland however, are not too high in other regions. A document, linked to agenda, was presented detailing energy saving tips.

Water Quality: TMT was referred to Water Quality link off of home page. It was noted that temperature levels are mostly due to hot weather. It was also noted that July temperatures had reached up to 74 degrees at John Day.

Other

Russ Kiefer, ID, noted that in reviewing the FPP and FOP in regards to Little Goose Low Flow operations, he saw that a discrepancy exists between FPP's table LGS-11 and language found in the FOP. The FPP tables indicate only operating spillway weir with out any "training spill". The question was raised: which document takes precedent? Dan Feil, COE, noted that adjustments were made at Lower Granite where the tail water gauge was recalibrated earlier in the season; operations and pool elevations were being observed closely monitored and will be bumped up as necessary. A brief caucus was taken, after which the Feil recognized that issues have arisen with the gauge and that there is no easy fix. He said that per the FOP, if spill is below 30%, then an 11.5 kcfs flat spill will be used as the COE has done in years past. Kiefer said ID prefers this operation.

TMT Schedule:

- Conference call to discuss Dworshak operations at 1:00pm on 7/31.
- Possible follow call on Monday 8/3. TBD
- Possible conference call on Wednesday 8/5 9:00 am
- 8/19 face-to-face meeting 9 am

Agenda items for future meetings will include:

- Notes Review
- Dworshak operations update
- Operations Review
- The Dalles Spillwall update (may be scheduled for the face-to-face on 8/19).

**Columbia River Regional Forum
Technical Management Team Conference Call
July 29, 2009**

1. Introduction

Today's TMT call was chaired by Dan Feil (COE) and facilitated by Erin Halton (DS Consulting), with representatives of COE, NOAA, USFWS, BPA, CRITFC, BOR, Montana, Idaho, Oregon, the Nez Perce Tribe and others participating. The following is a summary (not a verbatim transcript) of the topics discussed and decisions made at the meeting. Anyone with questions or comments about these notes should provide them to the TMT chair or bring them to the next meeting.

2. Review Meeting Minutes for July 22, 2009

There were no comments on the facilitator's notes or official minutes.

3. Libby Operations

Last month the COE showed TMT slides of ESP traces showing the potential for up to 7.5 kcfs outflows from Libby in August, Joel Fenolio (COE) reported. That was predicated on getting a spike of 25 kcfs in July which didn't pan out, so Libby is back to flat flows of 7 kcfs through August and 6 kcfs through September (these are bull trout minimums). The peak elevation of 2,441.8 feet will most likely occur the first week of August. TMT will revisit Libby operations on August 12.

4. Dworshak Operations

Dworshak is discharging 12 kcfs, with 2.1-2.2 kcfs of that as spill, Dan Feil (COE) reported. Previously TMT agreed to 41-degrees F for Dworshak outflows, but the coldest possible water combination from all reservoir layers is producing water of 42-43 degrees F. If all 12 kcfs outflows were spilled, water temperature would probably drop to 40 degrees F, but that would exceed the gas cap, Steve Hall (COE) said. The Dworshak units are operating in undershot mode, which produces outflows of 43-44 degrees F.

Temperatures at the Lower Granite tailwater had remained below 68 degrees F until just prior to today's meeting. At yesterday's FPAC meeting the Salmon Managers reached near-consensus on 68 degrees for 3 consecutive hours as a criteria for taking action to prevent further warming, especially with a heat wave on the way. The COE estimates a week of 14 kcfs flows at most in the water supply, followed by a week of 12 kcfs, then powerhouse minimums for the rest of the season. A healthy supply of warm water from Hells Canyon and the upper Snake – 22-23 kcfs instead of the typical 15 kcfs – is making temperature control more challenging this year.

The COE agreed with the Salmon Managers' inclination to increase flows and will ramp up to 14 kcfs at 11 am today, Feil replied. There was discussion of when to back off 14 kcfs, with underlying agreement that every effort should be made to conserve water now in case it's needed later. The Lower Granite tailwater hit 68 degrees F today. Concern about the effects of Hells Canyon flows on Lower Granite tailwater temperatures during the coming heat wave led TMT to schedule two Dworshak operations follow-up calls on July 31 and August 3.

Idaho, Oregon, BOR, BPA, NOAA, USFWS, Montana and CRITFC supported the COE operation of 14 kcfs outflows beginning at 11 am today, with a conference call at 1 pm Friday.

5. Seasonal Treaty Fishing Review

Kyle Dittmer (CRITFC) gave a report on this year's treaty fishing season. The Bonneville pool had 74% compliance (9% less than last year) with CRITFC's request for 1-foot stable elevation bands. The Dalles pool had 67% compliance (10% less than last year), and John Day pool had 100% compliance (vs. 99% last year). However, all of the pools had a high degree of compliance with the COE's 1.5-foot fluctuation targets. The elevation swings in John Day and Bonneville pools ranged from two-tenths of a foot to half a foot at Bonneville; a tenth of a foot to a foot at John Day; and as high as 2.5 feet in an hour at The Dalles. That exceedance no doubt was related to a fuel barge that was stranded on July 9.

The trend in recent years has been for tribal fishers to set their nets in the Bonneville and John Day pools, with 80% of nets there this year. There were no damaged nets as a result of reservoir operations. As of July 27, tribal fishers had caught 11,700 summer Chinook, 11,800 sockeye, and nearly 2,700 steelhead.

Doug Baus (COE) presented a summary of compliance with the hard and soft elevation constraints the COE had presented to TMT in response to each treaty fishery SOR. According to the COE's elevation constraints, the three lower river projects were in compliance for 99.99% of the treaty fishing season, with the only exception being the stranded fuel barge on July 9. The elevation constraints for treaty fishing season are based on the 10-year old Ted Strong agreement, which is outdated. COE and CRITFC representatives agreed that it needs to be updated.

6. McNary Emergency Operations – SOR Follow Up

At the last TMT meeting, the COE received a SOR requesting spill to the gas cap at McNary in response to high mortalities at the project, Dan Feil (COE) reported. Daily barging began July 24 and mortalities have gone down since then. The temperature gradient through the system has also moderated. Apparently the fish, acclimated to 66 degrees F water, encountered 72 degrees F water in the McNary bypass system and suffered from thermal shock.

McNary operations have since returned to 50% spill, and mortalities have returned to the normal range for this time of year. Fish passage in general has dropped off at McNary. The COE will continue to monitor this situation, and FPOM will address it in detail.

7. Operations Review

a. Reservoirs. Libby is at elevation 2,440.65 feet, with inflows of 8.5 kcfs and outflows of 7.0 kcfs. Albeni Falls inflows are 21.8 kcfs and outflows are 15.1 kcfs. Dworshak is at elevation 1,576.04 feet, with inflows of 1.3 kcfs and outflows of 14 kcfs beginning at 11 am today.

Seven-day average inflows are 40.4 kcfs at Lower Granite, 173.7 kcfs at McNary, and 165.2 kcfs at Bonneville. Inflows are declining.

Grand Coulee is at elevation 1,286.5 feet. Hungry Horse is at elevation 3,558.87 feet, with 2.36 kcfs outflows.

b. Fish. Adults – Chinook passage has decreased to a few hundred fish per day, with jack passage at 150 per day, Paul Wagner (NOAA) reported. Steelhead passage is most plentiful now, with 6,500 per day passing Bonneville, 2,500 of them wild. Sockeye passage is down to 20-50 fish per day. Lamprey passage is 100 per day, 7,000 to date for the 2009 season. Total sockeye passage for the season was 177,000 fish at Bonneville and 1,157 at Lower Granite.

Juveniles – Subyearlings are passing Lower Granite at the rate of 1,500 fish per day; 1,000 per day at both Little Goose and Lower Monumental; 14,000 per day at McNary; 5,000 per day at John Day; and 15,000 per day at Bonneville. Chinook subyearling passage has peaked and is tapering off at Lower Granite, Little Goose, Lower Monumental and McNary.

Spill at Bonneville has been reduced to 70 kcfs because of water quality issues. While total dissolved gas below the project is 115%, Camas Washougal gage readings have been in the 118-119% range mostly due to high temperatures. There are contradictory directions in the Fish Operations Plan on this, Wagner noted.

In response to this dilemma, the COE will continue to manage to Camas Washougal gage, with a floor of 75 kcfs spill at Bonneville in light of historical survival data, Feil said. The 75 kcfs floor will be reconsidered if Camas Washougal readings exceed 120% TDG which seems unlikely. In that case, the floor for spill at Bonneville would be 50 kcfs.

While spill of 75 kcfs is sufficient for daytime passage, dropping spill at night will adversely affect fish, Ron Boyce (Oregon) said. He requested spill to the gas cap at night. A true gas cap operation using Camas Washougal gage would set spill levels lower, Feil replied. Tom Lorz (CRITFC) asked why Camas

Washougal gage is used to regulate Bonneville operations when state agencies don't use it in their gas monitoring programs. Essentially this is a rollover issue applying to this year only, per agreement in the Fish Operations Plan, Feil explained. NOAA, BPA, BOR, USFWS, Montana, Idaho and CRITFC expressed support for this operation as an interim measure only.

c. Power System. Energy use is high due to the heat. Scott Bettin (BPA) presented energy saving tips posted to today's agenda.

d. Water Quality. Laura Hamilton (COE) presented water quality data available on the TMT web page. There have been a number of TDG exceedances due to high water temperatures recently. John Day tailwater temperatures rose to 74 degrees F for two days. By contrast, temperatures in the Snake basin have been 68-71 degrees F.

8. Other – Little Goose Summer Spill Operations

Russ Kiefer (Idaho) highlighted a discrepancy between Table LGS-1 in the Fish Passage Plan and the Little Goose spill pattern table in the Fish Operations Plan. According to the FPP, when flows are in the mid-30 kcfs range, the Action Agencies' plan is to operate the spillway weir with spill of about 23% of flows and no training spill. According to the FOP, however, spill will resemble last year's operation, with about 11.6 kcfs spill and no attempt to maintain an hourly rate of 30% spill.

Kiefer asked whether the FPP or the FOP would take precedence in this case. Feil recalled that recalibration of the Lower Granite tailrace gage seems to have reduced the navigation problems at Little Goose. More work remains to be done on the accuracy of the Lower Granite tailrace gage. The FOP stipulates that if river flows are 40 kcfs or less, and there are problems with navigation, the COE will raise the pool elevation. The COE is monitoring this situation very closely and will consider a flat spill operation of around 11 kcfs if necessary. Kiefer expressed support for this plan.

9. Next Meeting

The next scheduled TMT meeting will be a conference call on July 31, followed by potential calls on August 3, 5 and 12. The next meeting in person will be August 19. This summary prepared by consultant and writer Pat Vivian.

Name	Affiliation
Dan Feil	COE
Kim Johnson	COE
Doug Baus	COE
Tony Norris	BPA
Steve Barton	COE
Steve Hall	COE Walla Walla
John Heitstuman	COE

Russ Kiefer	Idaho
Tim Heizenrader	Centaurus
Rick Kruger	Oregon
Laura Hamilton	COE
Rudd Turner	COE
Dave Wills	USFWS
Scott Bettin	BPA
Paul Wagner	NOAA
Mary Mellema	BOR
Kyle Dittmer	CRITFC
Eric Volkman	BPA
Richelle Beck	DRA
Barry Espenson	CBB
Russ George	WMC
Ruth Burris	PGE
Rob Diaz	Integral Renewables
Tom Le	Puget Sound Energy
Ian Berg	Velocity Energy
Joel Fenolio	COE