

COLUMBIA RIVER REGIONAL FORUM TECHNICAL MANAGEMENT TEAM

August 11, 2010

FACILITATOR'S SUMMARY NOTES

Facilitator/Notes: Erin Halton

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.

Official Minutes/Facilitators' Notes

Paul Wagner, NOAA, followed up from the last TMT meeting with his edits to the 7/14 sets of notes:

- On page 3 of the facilitator notes under McNary Transportation: strike "more than" 48 hours.
- On page 7 of the Official Meeting Minutes under McNary Transportation: in the first paragraph strike "urgently" and change "a final decision" to "a better informed decision"; also change "air" to "water temperature of 68 degrees."

With those changes to the 7/14 sets shared, the notes/minutes were considered final. No further changes were made to the sets from the 7/16, 7/21, 7/28 or 8/4 sets and they were considered final.

Dworshak Operations

Steve Barton and Steve Hall, COE, reported on current Dworshak operations and next step operating options for temperature and water management. Hall said that weather temperatures have been fairly close to average over the last week; however, in anticipation of the warm spell expected for the coming weekend, the COE had shifted Unit 3 to undershot mode to draw from the cooler depths. Hall said he participated in the 8/10 FPAC call (by invitation) to discuss shifting discharges up from full powerhouse to 11 kcfs, which the COE had put into effect at 8 am on 8/11. Dave Wills, on behalf of the Salmon Managers, said that those present at FPAC (ID, OR, WA, USFWS and NOAA) had supported the recommendation to increase outflows to 11 kcfs. The COE noted that the question for TMT to discuss today was how long to hold outflows at 11 kcfs; options of holding for 3 days and 5 days were amongst those considered, and TMT members acknowledged that each two days outflows were held at 11 kcfs now would equate to a day that outflows could not be at full powerhouse later in August.

Jim Litchfield, MT, noted that for those TMT members not present at the FPAC meeting, they had not been made aware of the need to increase outflows to 11 kcfs; the COE acknowledged that they should have sent a coordination/notification email for all TMT members to be aware of the increase in discharges. The COE clarified that on 8/10/10, they had seen from the latest modeling results that there was an eminent need to go to 11 kcfs as soon as possible in order to keep temperatures below the 68°F criteria. FPAC was similarly concerned with model temperature results and asked Steve Hall to join a FPAC

call to discuss; on this call the FPAC members present were in support of the COE proposal to increase Dworshak outflows to 11 kcfs. TMT members discussed when to revisit Dworshak operations with TMT and decided that conference calls before and after the coming weekend would allow for the best discussion of actual conditions as they unfold – and to see what effect releases by Idaho Power will have over the weekend.

Action/Next Steps: The COE will continue to operate Dworshak at 11 kcfs and maintain until further discussion at TMT. TMT will hold conference calls to discuss Dworshak operations at 11 am on 8/13 and 9 am on 8/16.

Summer Treaty Fishing Catch Totals

Tom Lorz, CRITFC, reported on catch totals for the 2010 Summer Treaty Fishing season (June 16 – July 29): Chinook – 15,569; Steelhead – 10,547; and Sockeye – 20,562. Lorz said that per conversation at the COMPAC meeting, the region should expect the fall Treaty Fishing season to begin in about 2 weeks.

McNary Operations

Steve Barton, COE, recalled the discussion at last week's TMT and the subsequent emails shared with TMT regarding the COE shift to daily transportation of fish at McNary. Tim Dykstra, COE, added that this issue will be discussed at the FPOM meeting on 8/12.

Grand Coulee August 31 Target Elevation

John Roache, Reclamation, reported that this year the end of August target elevation at Grand Coulee is 1278' per the dry year criteria stated in the BiOP; however the project will draft an additional .7' as required for the Lake Roosevelt Incremental Draft portion of Washington State's Columbia River Water Management Plan, resulting in an end of August elevation of 1277.3'. Roache acknowledged that once elevation drops below 1278' that there are impacts realized around the Lake. Ed Wimberly, a member of the public, shared that once the elevation drops below 1277', the local residents are forced to move their boats out of the buoy fields; he added that there is concern that BPA will use their right of an additional 1.5' draft for operational flexibility. Roache clarified that there is no specific right of an additional 1.5 feet draft at Grand Coulee; however it is realized that some additional amount of draft may be required in order to adequately manage the reservoir. Roache acknowledged that while Reclamation makes every attempt to communicate forecasts/expected operations to the local communities, there are downstream flow and resident fish requirements, along with many other management concerns that are part of Grand Coulee operations.

Action/Next Steps: the Action Agencies will continue to communicate the drivers for the operation at Grand Coulee as they manage drafting the project and meeting minimum flow rates at the end of August.

Lower Snake River Operations

Steve Barton, COE, reported on a number of challenges currently underway on the Lower Snake River:

- At the Port of Lewiston, barge issues had been addressed by raising the forebay elevation (staying within MOP); Barton said evidence suggested that loading

procedures had caused the barges to run aground and that the incidents were not indicative of new navigation issues.

- At the Little Goose forebay, the COE is continuing to use an elevation of 633.5'-634.5' and using spill rates specified in the FOP to support the entrance to the navigation lock. **Action:** This item will be on the agenda for the 8/12 FPOM meeting.
- At Lower Monumental, there have been difficulties with the navigation lock entrance since the beginning of August. The COE has reviewed options for addressing the issue for this and future years, including using alternate spill patterns listed in the FOP and shutting off spill for short periods of time to lessen cross-current effects on navigation. **Action:** this item will also be on the agenda for the FPOM meeting on 8/12, and the COE will share the results of FPOM discussions with TMT.

Operations Review

Reservoirs: John Roache, Reclamation, and Steve Barton, COE, reported on their agencies' respective reservoirs. Grand Coulee was at elevation 1284.85', targeting an August 31 elevation of 1277.3'. Hungry Horse was at elevation 3553.64', with 4.3 kcfs outflows. Libby was at elevation 2442.7', with 8.7 kcfs inflows and 7 kcfs outflows. Albeni Falls was at 2062.23' with 15.1 kcfs inflows and 14.6 kcfs outflows. Dworshak was at elevation 1559.98', with 1.1 kcfs inflows and 11 kcfs out. Lower Granite daily average outflows were 27.2 kcfs, 95.8 kcfs at Priest Rapids, and 112.8 kcfs at McNary (the weekly average at McNary last week was 135 kcfs).

Fish: Dave Wills, USFWS reported that subyearling counts are receding and that for adult passage, steelhead numbers continue to be strong. He added that a few fall Chinook are arriving and Coho are beginning their run. Russ Kiefer, ID, added that so far 491 Snake River sockeye adults had returned to the Stanley Basin, and that IDFG planned to open the traps on Redfish Lake to allow direct access to the lake for natural spawning. Russ also reported that IDFG forecasts 1400 - 1500 adult sockeye will return to the basin.

Water Quality: Scott English, COE, reported that all water quality monitoring gauges were operational, and noted that there have been only 2 exceedances since the beginning of August.

Power System: Tony Norris, BPA, referred TMT to a new link on the wind generation page that shows real-time wind direction and speed using anemometer data.

Next Meetings:

August 13th and 16th Conference Calls – Dworshak Operations
August 18th – call if needed

August 25th - Face-to-face meeting

Agenda items will include:

- Review meeting minutes
- Dworshak Operations
- Autumn Treaty Fishing

- Coming out of MOP
- Operations review

Columbia River Regional Forum
TECHNICAL MANAGEMENT TEAM OFFICIAL MINUTES

August 11, 2010

Notes: Pat Vivian

1. Introduction

Today's TMT meeting was chaired by Steve Barton (COE) and facilitated by Erin Halton (DS Consulting). Representatives of the COE, Washington, Oregon, USFWS, BOR, BPA, Montana, CRITFC, NOAA and others attended. This summary is an official record of the proceedings, not a verbatim transcript. Anyone with questions or comments about this summary should give them to the TMT chair or bring them to the next meeting.

2. Review Meeting Minutes for July 14, 28, and August 4, 2010

Prior to today's meeting, Paul Wagner emailed comments on the facilitator's notes and official minutes for July 14:

- Facilitator's notes, top of page 3. Currently reads, "...barging/trucking operation will be coordinated to avoid holding fish for more than 48 hours." Cut "more than."
- Official minutes, first paragraph, page 7. Currently reads, "Data on Snake River fish that have been transported from McNary are urgently needed in order to make a final decision regarding McNary summer transportation." Cut "urgently" and change "a final decision to "a better-informed decision."
- Official minutes, second paragraph, page 7. Currently reads, "...on days when the air temperature exceeds 68 degrees F and the barge isn't loading." Change "air" to "water."

There were no other comments on notes or minutes today.

3. Treaty Fishery Update

Tom Lorz (CRITFC) gave preliminary catch counts for the 2010 summer treaty fishing season June 16-July 29: 15,569 chinook, 10,547 steelhead and 20,562 sockeye. These include all forms of tribal harvest such as gillnets and platform fishing.

4. Dworshak Operations and Temperature Modeling

Attachment 4a shows that outflow temperatures warmed as a result of higher temperatures last weekend, Steve Hall (COE Walla Walla) said. On August 9, the COE switched Dworshak unit 3 into undershot mode to cool outflows.

Attachment 4b depicts modeling results for two different scenarios. The first scenario shows flows held to full powerhouse and temperatures rising to 68 degrees F by August 13 or 14, with more warm weather coming. The second scenario shows an 11 kcfs discharge starting tomorrow morning and holding that for 3 days in preparation for the heat wave forecasted for this weekend.

The Salmon Managers invited Hall to participate in the FPAC conference call yesterday. That discussion led to a recommendation that the COE increase Dworshak outflows to 11 kcfs at midnight last night for the next 3-5 days, sending cool water down the Snake River. The COE implemented this recommendation. However, outflows went to 11 kcfs at 8 am today instead of at midnight due to operator error. Hall asked TMT to consider how long the 11 kcfs outflows should continue.

Dave Wills (USFWS) explained the FPAC call produced a tentative agreement that 11 kcfs outflows would continue for at least 5 days until August 16, pending TMT discussion today and feedback from the Nez Perce Tribe, which was not represented on the FPAC call or at the TMT meeting today. Yesterday FPAC set up a conference call for 9 am Monday, August 16, with a tentative plan to run 11 kcfs outflows until noon, Rick Kruger (Oregon) added. The point of the 9 am conference call is to factor in the latest information regarding Idaho Power releases from Brownlee Dam, the "wild card" in Snake River flow management. A recommendation to continue 11 kcfs beyond August 16 will be contingent on Idaho Power flows and the latest weather forecast.

The COE will seek Nez Perce input on Dworshak operations before deciding whether to continue 11 kcfs through this weekend, Barton said. If there are no objections, the 11 kcfs outflows will continue until the August 16 FPAC conference call. Kruger suggested that be changed to a TMT call, and this suggestion was adopted.

Russ Kiefer said Idaho supports the proposal to maintain 11 kcfs outflows through noon August 16 while acknowledging that it could limit water supplies later this month. Kiefer's modeling results indicate that every 2 days of 11 kcfs outflows now will mean one day of cutting outflows from full powerhouse to one big unit and one small unit in order to attain the 1,535 foot end of August elevation target at Dworshak.

As a process question, Jim Litchfield (Montana) questioned FPAC's role in the decision to go to 11 kcfs outflows without consulting TMT. The COE made a prudent decision to increase flows based on recognition that conditions downstream would probably exceed BiOp criteria without timely intervention, Barton explained. Barton and Wills agreed that FPOM made a recommendation, not a decision. The COE has the flexibility to ramp down Dworshak flows on August 13 or 16 at TMT's request, and is seeking TMT's advice now on how to proceed, Barton emphasized.

Hall added that Idaho Power releases of warm water could cause exceedances of BiOp criteria this coming weekend. Dworshak reservoir contains an ample supply of cool water so that's not a concern. If the COE had waited for TMT's endorsement today, the Dworshak water would have arrived too late to counteract the heat wave.

The COE will email TMT members the most current modeling of Dworshak operations, which indicates that temperatures could drop to 66 degrees F by August 17, Hall said. Additional modeling will be available as the weekend approaches. Noting that forecasts beyond 3 days contain a larger amount of uncertainty, Hall suggested TMT schedule an additional conference call before this weekend, which was set for 11 am Friday, August 13. TMT will decide then whether to recommend that 11 kcfs outflows continue through the weekend. The COE will maintain the current Dworshak operation until further notice.

5. McNary Transport

The July 14 discussion of McNary transport included discussion of daily transport or release of fish once temperatures exceed 68 degrees F in the McNary forebay. In accordance with that discussion the COE began off-day trucking of collected fish beginning August 6, Barton reported. Daily transport will continue until August 16 as described in the COE's email correspondence with TMT members. Tim Dykstra (COE) added that FPOM will work through this issue in time for next year's operation.

6. Grand Coulee August 31 Target Elevation

The Bi Op bases the end of August elevation for Grand Coulee on The Dalles July water supply forecast for April-August, John Roache (BOR) said. Anything less than 92 maf (which is considered a normal water supply volume) means the ending elevation target is 1,278 feet; anything greater than 92 maf means the elevation target is 1,280 feet. This year's forecast of 74 maf is 18 maf below the cutoff point, making the target elevation 1,278 feet. Apportionment of the incremental draft of Lake Roosevelt for Washington State's Columbia River Water Management Plan means an additional 52,500 acre feet of volume will be released, making the target elevation 1,277.3 feet.

Ed Wimberly of the Kettle Falls Marina gave testimony on how Grand Coulee operation affects residents and recreation on Lake Roosevelt. Below 1,277 feet elevation, boats might need to be removed from the marina. Below 1,276 feet elevation, they are likely to run aground. Of particular concern last year was a possibility that BPA might exercise its right to withdraw an additional 1.5 feet from the lake for power generation. Follow-up note: There is no specific right of an additional 1.5 feet draft at Grand Coulee; however it is realized that some additional amount of draft may be required in order to adequately manage the reservoir and the Columbia River system

Lorz asked, what are the constraints this year on refill? In a dry year, is minimum discharges downstream at Bonneville keeps Grand Coulee from refilling. Last year refill occurred 10 days beyond the target date. Barton acknowledged that Grand Coulee operations at the end of August can be a challenge, as it's difficult to meet all of the obligations without adversely drafting at the same time. We could face those conditions this year, Roache said. Barton assured everyone this issue is on the Action Agencies' radar.

7. Lower Snake Project Operations

Barton described three operational challenges on the lower Snake River and identified issues that need resolution:

Port of Lewiston – This issue has been resolved. Two grain barges became stuck in the mud as a result of being loaded on one end only. Both were freed yesterday afternoon without going outside of MOP operations.

Little Goose forebay range – To provide safe navigation at the entrance to the Lower Granite navigation lock, Little Goose has been operating within a one-foot band at 633.5-634.5 feet elevation, Barton said. MOP is 633-634 feet. This year several of the lower Snake projects are operating within official low flow criteria. When flows are low, the combination of low channel velocities and variations in discharges at Little Goose due to alternate use of one and two units can cause wave activity and navigation problems. Barton noted that no objections had been expressed by the TMT members who responded to official email notification of this problem. Last year, he recalled, Little Goose went to a flat spill pattern. Currently the COE is following the spill patterns in the Fish Passage Plan, but other options can be discussed if the elevation of Little Goose pool becomes an issue.

Until a recommendation is made otherwise, the COE will continue to operate Little Goose within the one-foot band at 633.5-634.5 feet elevation, using the spill patterns in the 2010 FPP.

Lower Monumental spill and navigation lock – On August 9 a tugboat hit the downstream guide wall at Lower Monumental lock, Tim Dykstra (COE) reported. Project staff suggested that making unit 3 the top priority unit could help solve navigation problems there.

There have been reports of near misses at Little Goose and Ice Harbor navigation locks as well. Barton recalled a similar situation at Lower Granite a few months ago, when the combination of low flows and FPP spill patterns set up a cross current at the entrance to the navigation lock, and a barge collided with the floating guide wall, shearing the bolts. There have been at least two recent instances of similar hydraulic problems in the Lower Granite lock. Yesterday a cruise boat hit the Lower Granite guide wall, Hall said. Barton noted that FPOM is an appropriate forum for deciding whether to close the Lower Granite spillway weir if spill is briefly shut off for navigation.

The 2010 summer Fish Operations Plan allows cessation of spill to allow a barge to safely enter and pass through the navigation lock, Barton said. An investigation of alternative spill patterns could identify several other options, and there's also the possibility of changing unit priorities. Barton asked the Salmon Managers and other TMT parties to think about alternative operations for the lower Snake projects and comment.

Laura Hamilton (COE) explained that usually Unit 2 at Lower Monumental is used during low flows, but it's out of service. Unit 5 which is being used in its place generates minimum flows of 14.4 kcfs instead of the 11.5 kcfs minimum flow produced by the smaller Unit 2.

The COE proposed a brief cessation of spill (for periods of about 20 minutes or more) as necessary to allow barges to enter the navigation lock safely at Lower Granite, Lower Monumental and Ice Harbor dams. To date the COE hasn't ceased spill at any of these projects, Barton said. This will be a major topic of discussion at tomorrow's FPOM meeting. The COE will keep TMT members informed and involved in these issues.

8. Operations Review

Reservoirs. Grand Coulee is at elevation 1,284.85 feet, with a target of 1,277.3 feet for August 31, drafting to manage flows at Bonneville and McNary downstream. Hungry Horse is at elevation 3,553.64 feet, discharging 4.3-4.4 kcfs as it has since July. Flows may be cut back to 4 kcfs to attain the elevation target of 3,540 feet on September 30.

Libby is at elevation 2,442.7 feet, with inflows of 8.7 kcfs, discharging bull trout minimums of 7 kcfs. Albeni Falls is at elevation 2,062.23 feet operating within the top foot; inflows are 15.1 kcfs and outflows are 14.6 kcfs. Dworshak is at elevation 1,559.98 feet, with inflows of 1.1 kcfs and discharges of 11 kcfs starting at 8 am today, as previously discussed.

Lower Granite weekly average inflows are down to 27.2 kcfs as flows on the Snake continue to recede. Last week's average was 36.1 kcfs. Priest Rapids outflows are 95.8 kcfs; last week's average was 96.6 kcfs. McNary is discharging 112.8 kcfs, down from last week's average of 135.6 kcfs.

Fish. Juveniles: Subyearling passage is still strong but starting to recede at Lower Granite, Dave Wills reported. Passage numbers are in the 3-digit range at Lower Granite, 4-digit range at Bonneville and John Day, and in the 5-digit range at McNary with transportation underway.

Adults: Steelhead migration is still strong with a season total of 257,000. A few fall Chinook are beginning to appear, though it's early. The sockeye migration is nearly finished, and coho migration is just starting.

Russ Kiefer gave an update on Snake River sockeye returns. Through August 8, 491 adults had been trapped. More adults were expected to return to Little Goose than the hatchery program can handle this year, so the plan is to allow adults to escape naturally to the lake after genetic sampling, rather than capture them for the hatchery. A rough forecast of the return is 1,500 fish.

Power. Tony Norris (BPA) showed TMT a new animated tool on the BPA web page, which shows the magnitude and direction of the wind in near-real time based on anemometer data from high elevation locations in the eastern gorge. These data are not the best indication of wind conditions on the river itself. Installed wind capacity in BPA's balancing area authority now exceeds 3,000 megawatts.

Water Quality. All gages are operating and TDG production has been low, Scott English (COE) reported. He will present the TDG report for July at the next TMT meeting in person August 25. The only TDG exceedances in August have been at Camas Washougal gage or caused by TDG releases from Canada.

9. Next Meetings

The next TMT meeting will be a conference call at 11 am Friday, August 13 to discuss Dworshak operations, followed by another call at 9 am Monday, August 16. TMT will decide on Monday whether a call on Wednesday, August 18 is needed.

The next TMT meeting in person on August 25 will cover ending MOP operations, lower Columbia inflows in relation to low flow criteria, and a water quality report for July.

| Name | Affiliation |
|-----------------|--------------------|
| Steve Barton | COE |
| Charles Morrill | Washington |
| Rick Kruger | Oregon |
| Dave Wills | USFWS |
| Doug Baus | COE |
| John Roache | BOR |
| Tony Norris | BPA |
| Russ George | WMC |
| Tim Brush | Merrill Lynch |
| Tim Heizenrader | Centaurus |
| Laura Hamilton | COE |
| Jim Litchfield | Montana |
| Tom Lorz | CRITFC |

Phone:

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|---------------|-------------------------------------|
| Ed Wimberly | Kettle Falls Marina, Lake Roosevelt |
| Steve Hall | COE Walla Walla |
| Scott English | COE |

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|------------------|---------------|
| Alex Cebarro | Grant Co. PUD |
| Barry Espenson | CBB |
| Richelle Beck | DRA |
| Doug Vine | Point Carbon |
| Scott Bettin | BPA |
| Russ Kiefer | Idaho |
| Tim Dykstra | COE |
| Shane Scott | PPC |
| Glen Trager | Shell Energy |
| Dave Benner | FPC |
| Margaret Filardo | FPC |
| Rich Dominigue | NOAA |