

**TECHNICAL MANAGEMENT TEAM
MEETING NOTES
April 28, 2004
CORPS OF ENGINEERS NORTHWESTERN DIVISION OFFICES – CUSTOM HOUSE
PORTLAND, OREGON**

FACILITATOR'S SUMMARY NOTES ON FUTURE ACTIONS

Facilitator: Donna Silverberg

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.

Status of Hanford Reach:

Chris Carlson, Grant County PUD, reported on the weekly average flows at Hanford Reach for April 19-25th. Operations went outside the flow band on the 19th, but improved later in the week. Chris reported reaching 852 temperature units at the end of last week. The end of emergence has not yet occurred. Chris will continue to update TMT at subsequent meetings.

Mid-Columbia Flow Objectives:

The salmon managers requested that current flows be maintained this week until the next water supply forecast is out (the May early bird is due out tomorrow 4/29) and increases in steelhead numbers are observed. The COE will run a QAdjust using the April final forecast. BPA needs 1-2 days to make operational changes during the week, and 2-3 for weekend operational changes.

McNary Operations Outside 1%:

As promised at the last TMT, the salmon managers provided a joint letter to the COE with comments on the COE's monitoring plan and BPA's proposal to lift the 1% constraint at McNary. The salmon managers found that the monitoring plan was limited in scope and suggested that additional monitoring be done on turbine mortality, descaling, delayed mortality and other areas (for a complete list see the 4/27 letter). Mark Smith, Walla Walla COE, provided some information on descaling monitoring underway at McNary. A handout was provided and can be found on the TMT web as a link to today's agenda. Nothing 'out of the ordinary' has been observed as of yet. This information can be found on the Fish Passage Center website.

Bonneville Nighttime Spill to TDG Limit:

Laura Hamilton, COE, described operations at Bonneville over the previous two weeks: 75 kcfs spill for 24-hr period from 4/16-21st; went to nighttime gas cap spill 4/21-28th (spill ranged from 100-125 kcfs during this time period). The COE found that 125 kcfs was too high, 100 kcfs was too low, and 110 kcfs went just over the TDG cap. NOAA said that, because it is nearing the end of chum emergence and start of juvenile migration, and because conservation was built into the TDG cap, it is acceptable to be close to the cap (even if slightly over). Chum emergence is expected to be complete around May 3rd.

ACTION: The salmon managers will discuss this issue during an FPAC meeting on May 4th, then will send an email to the COE by 11 am (including Laura Hamilton and Jim Adams) with biological information and recommended operations for next week.

ACTION: The COE will spill to 11.5' depth compensation for chum redds through May 3rd. If the COE does not hear from the salmon managers by noon on May 4th, they will plan to switch operations to "up to the gas cap" on the eve of May 4th.

Water Management Plan Spring/Summer Update:

Scott Boyd, COE, requested that TMT members provide any comments to the spring/summer update by May 5th so that it can be finalized by May 12th. A draft was provided to TMT members today and is linked to today's agenda on the TMT web page. The action agencies requested that TMT members look particularly at the research section and help fill in any gaps. Contact Scott Boyd (COE) or Nic Lane (BPA) with additional information. A suggestion was made to include just the specifics of the operation of the Hanford Reach agreement and link the rest of the agreement to the web. Also, a suggestion was made for TMT to review the specifics so that everyone understands the operation. Sturgeon pulse operations are still being negotiated for this year. Dave Wills, USFWS, will provide an update on this as it becomes available.

ACTION: TMT members will provide comments to the COE by May 5th for inclusion in the May 12th draft.

Lower Monumental Study Design:

Mark Smith, COE, reported that the COE had coordinated with SRWG and NOAA on the study design at Lower Monumental. As a result, nighttime spill was implemented from 6pm-6am, and is scheduled to end on April 30th, followed by survival studies (of radio-tagged fish) of 24-hour bulk spill for 15 days and then no spill for 15 days. Some issues have been identified with bulk spill and fish barge loading – the COE is doing tests to find a solution for this.

SOR 2004-6:

The salmon managers presented an SOR which recommended that Snake River spill continue at Lower Granite and Little Goose until steelhead are predominant in fish collection numbers. Steelhead numbers have not yet predominated chinook numbers for three days. Some salmon managers wished to re-open the discussion because of the new steelhead information. However, the COE responded to the specifications in the SOR: Spill at the Lower Snake projects ended on April 23rd after a COE decision based on regional input at TMT and IT, and a desire to balance power and fish needs in the region. To the second specification, it was unclear to the COE what was meant by "improvement" to flow conditions. To the third specification: BiOp spill at Ice Harbor will continue as per written in the BiOp. The official COE response/decision about spill was circulated last week and put on the TMT web page. The COE does not plan to change that decision.

SOR 2004 C-01:

Kyle Martin, CRITFC, presented an SOR for a spring treaty fishery to start next week (Tuesday May 4th at 6am through Thursday May 6th at 6pm). The request included: Operate Bonneville pool within 1' from full (76.5-75.5'), the Dalles pool within 1' (159.5-158.5'), and John Day

within 1' (264.5-263.5'), to allow for a treaty fishery of adult spring chinook. Kyle noted that this may be the only SOR for spring treaty fishing this year.

The COE is working to operate within 1' from full at the BON pool as a soft constraint, with a hard constraint of 1.5'. The minimum tailwater at The Dalles will work well with the request, which will be operated within 1' as a soft constraint. John Day will continue to operate at 1.5' from full as a hard constraint per the BiOp. Kyle Martin will report the results to TMT after the fishery.

System Status:

Reservoirs: Grand Coulee is at elevation 1268.8'. Hungry Horse is at 3531' and filling a little over .5' a day. Libby is at 2408', filling, and releasing 4 kcfs/day. The COE is anticipating an operation request for sturgeon pulse. Libby remains close to filling by June 30.

ACTION: The COE will do QAdjust runs for operations after June 30 at Libby and provide them at the next TMT meeting.

Dworshak is at elevation 1558', releasing 6 kcfs/day weekdays and 5.2 kcfs/day weekends. The COE will continue a 6.6 kcfs/day average release through this week, and plans to reduce outflows to just over 4 kcfs/day average to conserve water for later in the season.

Fish status: Paul Wagner, NOAA, reported on current fish status. Yearling chinook numbers increased substantially at Lower Granite and Little Goose on April 25th. Lower Monumental saw a slight increase in numbers. Steelhead numbers at Lower Granite went from ~58,000 on April 25th to ~221,000 on April 28th. Little Goose saw a slight increase in steelhead numbers over the week. Timing for spring chinook and steelhead migration on the Lower Snake is similar to previous years. The Mid-Columbia numbers are slightly lower at this time. There have been lower adult counts at Bonneville now than in 2002, but it was noted that this could be a late run year similar to 2002.

Power system: The system is running to meet load.

TMT Guidelines:

The TMT guidelines were last updated in May 2003 during a special TMT process meeting at which some changes to the guidelines were made, but they were never finalized. The latest draft was distributed to TMT today (and posted on the TMT web page). TMT members were asked to review the guidelines and share any suggested changes with the facilitation team prior to the May 12th TMT meeting for finalization at that meeting. Particularly, members are asked to look at the updated member list and provide any additional names that might be missing from the list. The TMT guidelines, when finalized, will be posted on the web page.

ACTION: TMT will review the guidelines and advise the final changes by May 7th.

TMT Meeting Schedule:

A conference call will be held on **Wednesday, May 5th at 9:00am**. Agenda items include:

- Priest Rapids Flows
- Spill at Bonneville
- ESP Runs – COE

TMT will have another conference call on **Wednesday, May 12th from 9-10am**. Agenda items include:

- Final WMP Spring/Summer Update
- TMT Guidelines
- Mid-Columbia Flows

The next face-to-face TMT meeting will be held on **Wednesday, May 26th, from 9am-noon**. An agenda will be circulated and posted on the TMT web page prior to the meeting.

1. Greeting and Introductions

The April 28 Technical Management Team meeting was chaired by Cindy Henriksen of the Corps and facilitated by Donna Silverberg. The following is a distillation, not a verbatim transcript, of items discussed at the meeting and actions taken. Anyone with questions or comments about these minutes should call Henriksen at 503/808-3945.

2. Hanford Reach Update.

Chris Carlson said that, for the week ending April 25, the Priest Rapids flow band ranged between 30 and 40 Kcfs; daily average flows ranged between 104.7 Kcfs and 149.1 Kcfs, and the weekly average was 117.9 Kcfs. The flow bands were significantly exceeded on only one day: April 19, when the daily variation in flows was 103.8 Kcfs, more than triple the 30 Kcfs flow band in place that day. The high flows resulted from what was happening the week before, including the Chief Joseph flow estimates and side flows that made flow calibration difficult; the rest of the week was better, he said. We still have not seen the end of chum emergence, Carlson said; we were at 852 temperature units from the end of spawning by the end of the week.

3. Mid-Columbia Flow Objectives.

David Wills said the salmon managers discussed this issue yesterday; we would like to maintain the current 110 Kcfs average flow a little longer, until we see higher steelhead numbers and have a chance to look at the next water supply forecast, he said. The group briefly discussed pre-scheduling and the timeline for making changes to the Mid-Columbia operation.

4. Salmon Managers' Response to McNary 1% Monitoring Plan.

Wills said the salmon managers had reviewed the monitoring plan for the proposed McNary 1% operation, although the understanding is that McNary will not be operated outside 1% this year, with the exception of the four test units. The bottom line is that the salmon managers did not feel that the monitoring plan had the breadth or scope necessary to monitor the effects of operating the project outside 1%, Wills said; if this concept is put forward in the future, there are a number of specific areas within the monitoring plan where improvement is needed. Wills distributed a joint technical letter from USFWS, IDFG, ODFW, USFWS and WDFW, dated April 27, which lays out the salmon managers' recommendations. This document is available via hotlink from today's agenda on the TMT homepage.

Henriksen distributed a summary of the percent descaling at McNary Dam for the period April 1-April 27. Mark Smith noted that, since the McNary modernization study began on April

16, descaling has ranged between 1.5% and 6.1%. We're keeping a very close eye on this, said Smith; what we're seeing so far doesn't seem to be out of the ordinary, based on results from past years. In terms of descaling results at the facility and for the direct PIT-tag releases, the results seem OK so far, although the smolt monitoring personnel are noting some fish in what they characterize as poor condition, Smith said. The bottom line is that, to date, we're not seeing anything out of the norm, said Smith. The descaling summary, again, is available via hotlink from today's agenda on the TMT homepage. Margaret Filardo noted that the descaling summary is updated daily on the Fish Passage center homepage.

5. Nighttime Spill to TDG Limit at Bonneville.

Laura Hamilton said spill at 50 Kcfs started as requested in SOR 2004-4 on April 12. On April 16, spill at Bonneville was increased to 75 Kcfs, 24 hours per day. We continued spilling 75 Kcfs 24 hours a day until April 21, she said, at which point a table of flow and TDG values was used to determine nighttime spill levels up to the gas cap. With nighttime flow levels in the 180-200 Kcfs range, said Hamilton, we were spilling 125 Kcfs during nighttime hours. She noted that there were some problems with hitting the gas cap; some nights spill and TDG levels were somewhat too high, and some nights they were too low; nighttime spill during the period April 25-present have ranged between 100 Kcfs and 110 Kcfs. At 110 Kcfs, Hamilton said, we're seeing highest 12-hour-average TDG of 115.9%, somewhat higher than expected; over 24 hours, however, average TDG is closer to 115%, so we're in the ballpark.

After a brief discussion, it was noted that chum emergence is now winding down; May 3 is the tentative date by which chum emergence is expected to be complete, although Ron Boyce said that, given the fact that chinook emergence is still in full swing, in his opinion, the current operation should continue for at least the next two weeks. It was agreed that FPAC will discuss this issue at its meeting next Tuesday, May 4, and will develop a recommendation on continued spill at Bonneville. This recommendation will be communicated either via email or at a TMT conference call next Wednesday.

To clarify, then, the current Bonneville operation will continue at least through Monday night, May 3, said Henriksen; we will plan to possibly shift the operation by the evening of May 5, based on what the salmon managers recommend.

6. Spring/Summer Update.

Scott Boyd said a new draft of the spring/summer update is now available; he went briefly through some of the new content included in the draft. He said that, ideally, he would like to finalize this document within two weeks; this is the last chance to provide comments on this document, preferably by May 5, so that the TMT can discuss them. Boyd noted that the primary change was his insertion of April final water supply forecast data into the document.

In response to a request from Boyd, Wills said that the current discussion of the 2004 sturgeon pulse operation continues; it is a work in progress at this point, mainly because they're struggling with the changing water supply forecast.

7. Lower Monumental Study Design.

Boyd said his understanding is that Lower Monumental will continue spilling at night, beginning at 6 p.m., until April 30; then the spill test will begin, using the bulk spill pattern, 24 hours a day, starting on Friday. We're still working through some problems with barge loading caused by the bulk spill pattern, Boyd said; under the new pattern, even 20 Kcfs may be too high while barge loading is going on. We're looking at 14 days of bulk spill up front, followed by 14 days of no spill, added Mark Smith, although 15 days is still under discussion.

8. *SOR 2004-6.*

On April 22, the action agencies received SOR 2004-6. This SOR, supported by USFWS, IDFG, WDFW, CRITFC, the NPT and ODFW, requests the following specific operations:

- Continue Snake River spill at Lower Granite and Little Goose Dam transport collector projects until steelhead predominate in fish collection numbers at Lower Granite Dam for at least three consecutive days. A similar request would be made for Lower Monumental; however 15 days of spill will be implemented during early May for a spill study, which will provide protection for this early portion of the juvenile migrants.
- If flow conditions improve later this season, a request to continue spill at the transport collector projects will be considered to provide a spread-the-risk management approach
- Biological Opinion spill for fish passage at Ice Harbor Dam is to continue through the spring and summer migration periods.

Wills provided an overview of this SOR, which is available via hot-link from today's agenda on the TMT homepage. Please refer to this document for full details and justification.

Wills noted that, since the SOR was submitted in response to the discussion at last week's TMT meeting, in the last two days, steelhead have begun to predominate in the collection facility at Lower Granite; it was noted that spill at Little Goose and Lower Granite actually stopped at 6 a.m. on April 23, as per the discussion at the April 21 TMT meeting. Henriksen noted that the decision that was made, after considerable discussion at TMT and IT, was an attempt to balance competing regional fish and financial needs.

With respect to the second bullet of the SOR, Wills clarified that this was based on the hope that flows would improve; it was not intended for implementation after steelhead begin to predominate at Lower Granite. We mainly wanted to get some closure, in the form of a formal response to this SOR, on our request, said Boyce. He noted that steelhead numbers, while increasing, have not yet predominated for three consecutive days. He requested additional discussion of this point at TMT. Henriksen said the response the Corps attached to last week's TMT meeting is the Corps' formal response to the salmon managers' request. That document is also available via hotlink from the April 21 TMT agenda. Boyce requested a formal action agency response to SOR 2004-6. Henriksen replied that the previously-referenced Corps document responds to the first bullet; the second bullet, which references only "improving" conditions, is somewhat nebulous, and with respect to the third bullet, spill continues at Ice Harbor.

Margaret Filardo clarified that the IT decision on SOR 2004-3 was based on historical steelhead passage information; the salmon managers' point is that steelhead passage numbers had not begun to predominate in 2004 by the date specified for the end of spill. However, her understanding, based on the Corps' response, is that because of low Snake River flows in 2004, the Corps' decision was irrevocable, no matter what the fish passage data said.

9. SOR 2004-C1.

On April 27, the action agencies received SOR 2004-C1. This SOR, supported by CRITFC, requests the following specific operations:

- Implement the following operations as a hard constraint:
- May 4, 6 a.m., through 6 p.m. May 6: operate Bonneville Pool within 1.0 foot of full pool (msl elevation 76.5-75.5); operate The Dalles (Celilo) Pool within 1.0 foot of full pool (msl elevation 159.5-158.5); operate John Day pool within 1.0 foot (msl elevation 264.5-263.5).

Martin provided an overview of the SOR, which is in support of the spring treaty fishery. The full text of the SOR is available via hotlink from today's agenda on the TMT homepage; please refer to this document for additional details.

After a brief discussion, Henriksen said the Corps always tries to keep Bonneville pool as steady as possible at this time of year. She said the Corps is trying to get this set up for next week, with a soft constraint in place at 76.5-75.5 feet. John Day pool is operating within a two-foot range, and The Dalles is operating generally in a 1.5-foot range. In general, she said, conditions look positive for implementing the tribal request. Anything the corps and Bonneville can do will be greatly appreciated, Martin said. The group briefly discussed the current outlook for the 2004 adult chinook run, and how that compares with the pre-season run estimate; it was noted that it now appears that the run will be somewhat smaller than originally estimated. The group also discussed how harvest allocations are developed.

10. Status of Operations.

Norris reported that Grand Coulee was at elevation 1268.8 feet this morning, with inflows in the 90 Kcfs range. Hungry Horse is now at 3531 feet, with inflows on the rise, driven by recent warm weather in the area. In response to a question, Norris said the Columbia Falls minimum flow is 3.5 Kcfs, and the current Columbia Falls flow is in excess of 15 Kcfs. Chris Ross noted that there appears to be some excess volume at Hungry Horse, and asked when it will be coming out. Some time in June, when we get closer to full at that project, Norris replied. Henriksen said Libby is currently at elevation 2408 and filling; inflows to that project are increasing, and it is releasing 4 Kcfs. The April-August water supply forecast at Libby is still 5.3 MAF, she said, which still puts us in the Tier 1 sturgeon flow range in 2004. Henriksen said that, even factoring in the anticipated sturgeon pulse, Libby is on the cusp of June 30 refill. Any idea what the projected July-August flow from Libby will be? Wagner asked. Somewhere between 7 Kcfs and 25 Kcfs, Henriksen replied; the default operation is a 20-foot draft by August 31. The bull trout minimum flow is 7 Kcfs, Henriksen noted; that would kick in once the sturgeon operation is complete and before salmon augmentation flows begin in July. As always, we will try to avoid a double peak at that project.

Moving on to Dworshak, Henriksen said the current elevation is nearing 1558 feet; outflow is 6.6 Kcfs weekdays and 5.2 Kcfs weekends. The 6.6 Kcfs average outflow will continue at least through this week; Dworshak is filling somewhat. She noted that, based on the April mid-month water supply forecast of 2 MAF (April-July), the expected flow augmentation volume at Dworshak has fallen from 419 kaf to 250 kaf, compared to the volume forecast based on the April final WSF. Based on that fact, we will probably be reducing outflow at Dworshak to about 4 Kcfs starting next week, she said. Henriksen

added that the Corps will develop some additional flow augmentation volume estimates for Dworshak based on the lower STP forecast.

Moving on to current fish passage information, Wagner said yearling chinook index numbers have increased dramatically at Lower Granite in the past few days, in part due to the cessation of spill at that project. Little Goose shows a similar trend. At McNary, numbers are also increasing; the index numbers are holding steady at John Day and Bonneville. Steelhead numbers have also increased dramatically at Lower Granite, where the majority of the run is collected, Wagner noted; at the Lower Columbia projects, early index numbers remain fairly low, but are tracking with pre-season run timing estimates, based on the past 10 years of data. He added that water temperatures at Lower Granite have begun to climb, and are currently at the 105-11-degree C range in the Lower Granite tailrace. Temperatures will likely continue to climb toward their summer peak, Wagner said. With respect to adult passage counts, Wagner noted that adult chinook counts peaked earlier in April at Bonneville, and have since receded; however, in 2002, at least, a similar early-season pattern was seen, followed by a dramatic increase in adult passage during May. The chinook run to date at Bonneville is just under 100,000 fish, lower than the counts for by this date for 2000, 2001 or 2003. We're in the high drama of waiting for the fish, Wagner said.

John Wellschlager said the power system continues to run to meet load; there are no significant problems to report at this time.

11. TMT Guidelines.

Silverberg noted that the TMT guidelines available on-line are the 2001 guidelines; it was discovered that, while there was some discussion of the guidelines at TMT last year, the group never finalized the May 2003 draft guidelines. We don't have to finalize these today, Silverberg said, but I would ask the TMT membership to review the May 2003 draft guidelines and come to next week's meeting prepared to finalize them. If you see anything that needs to be changed, she said, please let me know prior to next Wednesday. That way, she said, we can get the correct version of the guidelines up on the website.

12. Next TMT Meeting Date.

The next Technical Management Team meeting was set for Wednesday, May 5, a conference call to check in on Priest Rapids flows and spill at Bonneville.

**TMT Attendance List
April 28, 2004**

Name	Affiliation
Cindy Henriksen	COE
Tony Norris	USBR

Steve HAeseker	USFWS
David Wills	USFWS
Kyle Martin	CRITFC
Bruce MacKay	Consultant
Ruth Burris	PGE
Tom Haymaker	PNGC
Tim Heizenrater	PPM
Scott Boyd	COE
Donna Silverberg	Facilitation Team
Robin Harkless	Facilitation Team
Mary Karen Scullion	COE
Kevin Nordt	PGE
Paul Wagner	NOAAF
Chris Ross	NOAAF
Russ George	WMCI
Nic Lane	BPA
John Wellschlager	BPA
Mike O'Bryant	CBB
Laura Hamilton	COE
Tina Lundell	COE
Russ Kiefer	IDFG
Ron Boyce	ODFW
Chris Carlson	GCPUD
Jiong Ji	Avista Energy
Bruce Suzumoto	NPCC
Ken Pinnacle	PSE
Lee Corum	PNUCC
Denny Rohr	D. Rohr & Associates
Dave Ryan	PPM
Mike Buchko	Powerex

Mark Smith	COE
Amy Reece	COE