

**TECHNICAL MANAGEMENT TEAM  
MEETING NOTES  
August 13, 2003  
CORPS OF ENGINEERS NORTHWESTERN DIVISION OFFICES – CUSTOM  
HOUSE  
PORTLAND, OREGON**

FACILITATOR’S SUMMARY NOTES ON FUTURE ACTIONS

Facilitator: Robin Harkless

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.

**Ice Harbor Pit Tag Data and Spill Update:**

Paul Wagner, NOAA, reported that the results from the pit tag data are now available. He provided a memo that provided an overview of the test and preliminary results, which show 96.4% passage survival through the spillway, 94.7% through the powerhouse bypass, and 89.3% through the turbines. It was noted that the confidence intervals for these statistics are wide. NOAA is still engaging in internal discussions on the data, and recommended today that the bulk spill pattern continue until further discussions can occur. In the meantime, NOAA asked for input from TMT members on the issue. Ron Boyce, Oregon, said that he would like to look at the data more closely, considering operations in the context of making changes to the BiOp spill program at Ice Harbor. Oregon committed to continue discussions with federal and state partners on this issue. Cindy Henriksen, COE, clarified that the current spill pattern was based on known information and that it is uncertain if survival is increased or decreased by going to a 12-hour spill pattern. Dave Statler, Nez Perce Tribe, expressed agreement with Oregon to review the data before making a decision to change operations at Ice Harbor. Steve Haeseker, USFWS, said that based on point estimates, it would be more beneficial to operate a 24-hour spill pattern, but raised no objection to maintaining the current pattern for now.

Cindy Henriksen asked Paul Wagner about any additional data being distributed. Paul Wagner responded that Brad Eppard is the contact point on the study. NOAA has been engaged with Brad in discussions about the data. Brad was scheduled to present information to the NPPC during a meeting later today. Anyone interested in being involved in these discussions should contact Paul or Brad. The raw pit tag data is available on the DART web site. The memo distributed today will also be available on the TMT website. It was acknowledged that some “abrupt” decisions were made this year and that, in the future, it would be helpful for regional partners to have ample time to review the data before making operational decisions.

*Fish migration status:* To aid in the discussion on Ice Harbor spill, Paul Wagner presented information on fish passage of subyearlings. Large numbers are still being observed at McNary and John Day. The DART forecast showed 91% pit tag passage at

Ice Harbor. Ron Boyce pointed out that the model is not always accurate with timing of the run. Scott Bettin, BPA, noted that, from his perspective, the numbers of fish are small so there is not a significant biological impact from spill or no spill at Ice Harbor. Dave Statler offered that the Fall Chinook run, half of which has not reached Lower Granite, should also be taken into account when making operating decisions at Ice Harbor.

Paul Wagner reported that FPAC has been looking at criteria for spill. On the mid-Columbia, a 95% passage criteria is used and FPAC is discussing whether this may also be appropriate for the Snake. They will discuss this at the next FPAC meeting on Tuesday and hope to have a recommendation for TMT by Wednesday.

**ACTION:** FPAC will discuss spill criteria for the Snake River projects and NOAA will continue internal discussions of the pit tag data. TMT will meet again next Wednesday, August 20, to discuss Ice Harbor spill. In the meantime, the current bulk spill pattern will continue as in the past week.

**Reservoir Operations:**

Libby is 11+ feet from full and drafting, and expected to reach elevation 2439' by August 31. Cindy Henriksen reported that outflows will need to be reduced around August 22 in order to meet the target elevation. Hungry Horse is at elevation 3545.3' and releasing 5 kcfs. A ramp down is expected sometime during the third week of August to meet Columbia Falls elevations. Grand Coulee is at elevation 1282.7'.

Dworshak continues to release 10 kcfs outflow, per discussions between the COE and NOAA on Monday, August 11. The target for Dworshak is to reach elevation 1535' by the end of August. Given this, the model shows that flows will need to be reduced to 6.5 kcfs on August 18-31, then back up to 8.4 kcfs to reach elevation 1520' by mid-September. Temperatures at the Lower Granite tailwater have increased slightly in the past few days. NOAA would like to maintain the tailwater at around 66 degrees. Kyle Martin reported that the weather is supposed to cool down in the next week in that area.

Paul Wagner clarified that there is no specified recommendation in the BiOp on how to reach elevations at Dworshak, although a particular operation has been referred to as a "BiOp operation".

**ACTION:** Flows at Dworshak will be reduced to 6.5 kcfs at midnight on August 18 and be maintained until the end of August. The Nez Perce Tribe agreed to the recommended operation. While there was not enough objection to elevate the issue to IT, Oregon and USFWS expressed that they did not fully agree with NOAA's recommendation for operations at Dworshak.

Flows at Lower Granite are at 30 kcfs and showing a recession below the seasonal average. Likewise, McNary, at 130 kcfs, is showing a recession below the expected average seasonal flow, which is 137 kcfs.

**Water Supply/Quality:**

The runoff forecast showed 74% average for the season in January. The actual January-July observed was 82% at the Dalles due to high flows in March and April. Grand Coulee experienced a 69% of average runoff in July. The January-July observed at Grand Coulee was 86%. At Lower Granite, the April-July observed runoff was 78%.

Laura Hamilton reported that there were two TDG exceedances over the last two weeks, both at McNary, due to high temperatures. High temperatures are the main water quality concern at the moment.

**Other:**

*Transmission Business Line:* There will be a presentation from a policy and technical person from the TBL during a TMT meeting in September. Cindy Henriksen noted that if possible, it would be beneficial to have that presentation sooner, if only one of the two presenters are available.

*Lower Granite:* Scott Bettin reported that lines need to be replaced at the Lower Granite powerhouse due to an outage that occurred earlier this year. BPA proposed to operate 11.5 kcfs out for 8 hours and pond above MOP on August 28 beginning at 8 am. No objections were raised from TMT members on this proposed operation.

*MOP Operations:* BPA would like to lift minimum operating pool (MOP) requirements from Little Goose, Lower Monumental and Ice Harbor as soon as possible. FPAC will discuss this issue relative to juvenile passage at their meeting next Tuesday, and TMT will revisit the issue next Wednesday.

*2004 Water Management Plan:* A draft of the WMP will be available on the TMT web site later this week. TMT will discuss logistics of the comment period during next week's TMT meeting.

**Next Meeting, August 20, 9am:**

Agenda Items:

- Ice Harbor Spill
  - End of Spill
  - Lower Columbia Spill
- MOP Operations – end of requirement
- Dworshak Operations Update
- 2004 WMP

***1. Greeting and Introductions***

The August 13 Technical Management Team meeting was chaired by Cindy Henriksen of the Corps and facilitated by Robin Harkless. 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. Ice Harbor PIT-Tag Data and Spill Update.***

Paul Wagner said the PIT-tag data from the 2003 spill survival test at Ice Harbor is now available and the long-awaited results are in. The bottom line, said Wagner, is the following relative survival estimates: 96.4% for spillway survival, 89.3 for turbine survival and 99.7% for bypass survival. Overall powerhouse survival is about 95%, said Wagner, adding that the confidence intervals around these numbers are fairly wide. As far as our recommendation, NOAA Fisheries is still cogitating on what to do with this and whether or not we're going to make a change, Wagner said – we have not yet decided whether to make a change to the current spill program at Ice Harbor, as of today, but are continuing to discuss that question internally. We are curious about what other agencies would recommend, Wagner said, but at this point, NOAA Fisheries is not ready to recommend a deviation from the current spill operation, bulk (100% of river flow) spill from 8 p.m. to 8 a.m. with large gate openings in three bays.

Ron Boyce said ODFW would like a chance to look more closely at this data in the context of potential changes to the BiOp spill program at Ice Harbor. This program will be over within two weeks, possibly sooner, he said; the point of this test was to see whether we could improve spillway survival. We all need to feel comfortable with this data before any significant changes are made, Boyce said, adding that the salmon managers do not have any plans to elevate the current operation for dispute resolution. Boyce noted, however, that survival through the spillway is higher (96.4% vs. 95%) than overall powerhouse survival.

So NOAA Fisheries and the other salmon managers are looking at this data, said Henriksen; we have heard that NOAA Fisheries is not recommending any change in operation at this time. What changes might be made to the spill program once that analysis is complete? she asked. The current operation is nighttime only, Boyce replied; the BiOp calls for 24-hour spill at Ice Harbor during this period. The recommendation for 12-hour bulk spill was made based on best available information, Henriksen said; I'm curious where this new information may lead. It may indicate that the current operation is producing lower overall project survival than 24-hour spill would, Boyce replied. Bettin noted the 2003 balloon-tag data indicates an injury rate of up to 20% for fish passing through spill – statistically, there is no difference between survival under zero spill and bulk spill, he said. Therefore spill as a passage route should be questioned, let alone increasing the use of that passage route. Also, how many fish are passing Ice Harbor, currently? We'll cover that later in today's agenda, Boyce replied.

Dave Statler said the Nez Perce Tribe agrees that the salmon managers need more time to review this data before any changes are made. Steve Haeseker said these data suggest that a 24-hour spill program at Ice Harbor would be more beneficial for fish at Ice Harbor; the point estimates support pushing as many fish as possible through the spillway, so the Fish and Wildlife Service will likely be recommending 24-hour spill at Ice Harbor, he said. Boyce noted that the delay associated with zero spill at Little Goose indicate that no spill would increase passage timing by up to a week -- that's another biological consideration. In response to a question from Bettin, Boyce said there is no direct data on delay caused by zero spill at Ice Harbor.

Boyce expressed the concern that the BiOp summer spill operation at Ice Harbor has already been compromised, and Oregon did not agree with that decision. Wagner agreed that NOAA Fisheries took the lead in making that decision; in retrospect, he said, it probably would have been better to include everyone in that decision-making process up front. That will be our goal for next year at Ice Harbor, said Wagner. We'll put this topic on the agenda for next week's TMT meeting, said Bettin. Henriksen said she will post the NOAA Fisheries PIT-tag data memo to the TMT homepage this afternoon; it will be hot-linked to today's TMT agenda.

### ***3. 2004 Water Management Plan.***

Henriksen said the draft 2004 WMP will be posted to the TMT website later this week.

### ***4. Current System Conditions.***

Wagner updated the group on the current status of the subyearling migration, using the Fish Passage Center website. At Lower Granite, the daily passage index fell to 800 fish on July 30, went back up to 4,500 fish on August 5 and has since receded to about 1,600 fish. The increase was the result of thunderstorm and precipitation events in the area. There are still respectably large numbers of subyearling chinook passing the McNary and John Day projects, Wagner said.

With respect to the DART passage forecast, Wagner said the current forecast of PIT-tagged wild Snake River subyearling chinook passage (% of run passed to date) is 97% at Lower Granite, 94% at Little Goose, 91% at Ice Harbor and 90% at McNary. Boyce noted that Billy Connor's work (upon which these estimates are based) is skewed toward the early component of the subyearling chinook run. Bettin replied that Boyce is focusing only on in-river fish – 90% of the total run has already been transported. Wagner noted that the indices capture only a portion – perhaps 40% – of what is actually passing these projects. Statler observed that up to half of the later-migrating smolts from the Clearwater system have not yet reached Lower Granite; that's the run the Nez Perce are primarily concerned about – historically, only 40% of that run reaches Lower Granite by August 31. Bettin replied that those fish are being taken care of by continuing cool water releases from Dworshak into September; once those fish reach the dam, they are mainly being transported.

The point is that there are still several hundred wild subyearling chinook being detected daily at Ice Harbor; only half of the BiOp spill program is being provided at this time at Ice Harbor, and we have general agreement that it is important to protect the tail of the run, said Boyce. Our feeling is that, based on the best available information, this year's operation is not compromising the BiOp, said Bettin – we have met our planning date for ESA listed fish, and have already protected the 95% of the run the BiOp calls for. Do we want to protect 100% of the run? You need to be careful in interpreting that data, Boyce replied.

The overall point is that the fish are still moving through the system, said Wagner; the lower you go in the system, the lower the percentage of the total run that has

passed each project to date. In response to a question, Wagner said DART estimates that 98% of the combined (hatchery and wild) subyearling chinook run has passed McNary Dam to date (+/- 7%). The group devoted a brief discussion to how these estimates are developed.

The question, obviously, is when the summer spill program should end, said Bettin – based on this information, if we're not there now, we're very, very close. In response to a question from Henriksen, it was noted that spill at the Mid-Columbia projects is continuing at least through next Monday, August 18. Combined subyearling chinook passage at Rock Island Dam is currently at 97%, based on the DART estimate.

Does BPA have a proposal ready for presentation at today's meeting? Boyce asked. We've reached the 95% passage point at Lower Granite, but we're not quite there at Ice Harbor, said Bettin. Boyce noted that the indices at Lower Monumental are still substantial for this time of year. Still, you're talking about a few hundred fish in the context of a run at large of more than 1 million, Bettin replied. Boyce reiterated the importance of protecting the later-migrating component of the listed Snake River fall chinook subyearling run; he noted that FPAC will be discussing the status of the run at its meeting next week. After a few additional minutes of debate about the validity and meaning of the passage timing estimates, it was agreed to revisit this topic again at the August 20 TMT meeting. The salmon managers will explore the criteria used by the Mid-Columbia parties to measure 95% run passage and will begin to develop such criteria for the Snake/Columbia River system.

Henriksen said that, at Libby, the Corps continues to draft the project to reach elevation 2439 by August 31; Libby continues to release 18 Kcfs and is about 12 feet from full. Outflow will likely be reduced to 14 Kcfs on August 22, she said. Hungry Horse is at 3545 feet and releasing 5 Kcfs, said Tony Norris; we'll start ramping down to meet the Columbia Falls minimum during the third week in August. As of midnight last night, Grand Coulee was at elevation 1282.7 feet. Also at midnight last night, Banks Lake was at 1567.6 feet, said Bettin. At Dworshak, we've been releasing 10 Kcfs, Henriksen said; we talked about going to 8.8 Kcfs outflow at midnight Monday, August 11, but given the tailwater temperature situation and weather in the Lewiston area, we agreed to continue to release 10 Kcfs. Dworshak is at elevation 1552, about 48 feet from full, Henriksen said. Henriksen said the Corps will need to reduce Dworshak outflow to 6.5 Kcfs at midnight Monday, August 18 in order to achieve elevation 1535 on August 31.

Forebay water temperatures at Lower Granite have fallen from 76 degrees three days ago to 71 degrees, currently, Wagner added; they have been as low as 69 degrees over the past three days. Tailwater temperatures at the project have increased from 65.4 degrees to about 67 degrees, currently, he added. This is somewhat higher than anything we've seen this year, he said; that's why we kept the Dworshak discharge at 10 Kcfs. We would prefer to maintain tailwater temperatures in the 66-67 degree range, he said. Kyle Martin added that, while air temperatures in the Lewiston area are currently in the mid-90s, they are expected to moderate to the mid-80s by next week.

Do we still want to target elevation 1535 at Dworshak by August 31? Henriksen asked. There was general TMT agreement with this operation. In that case, said Henriksen, Dworshak discharge will decrease to 6.5 Kcfs at midnight Monday, August 18, then increase to about 8.4 Kcfs on September 1. Boyce noted that, while Oregon does not intend to elevate this issue, this Dworshak operation was not the one Oregon originally envisioned – we would prefer to use all of the available Dworshak storage during July and August, he said. Statler said the Nez Perce Tribe agrees that targeting elevation 1535 at Dworshak on August 31 is appropriate.

The current flow at Lower Granite is just under 30 Kcfs and declining, Henriksen said; the seasonal average flow at Lower Granite is now forecast to be about 33 Kcfs. At McNary, the current week-average flow is 130 Kcfs and is receding; the summer seasonal average flow at McNary is now forecast to be 137 Kcfs. She added that the National Weather Service has completed the observed runoff process for 2003; at The Dalles, for the month of July, flow was only 67% of average. For the season (January-July), it was 82% of average. At Grand Coulee, July runoff was only 69% of average; observed January-July runoff was 86% of average at that project. At Lower Granite, April-July, runoff was 78% of average, she added. It was only 54% of average during the month of July.

Laura Hamilton said there were only two TDG exceedences reported during the most recent reporting period, both due to high water temperatures. We are exceeding the state standard of 68 degrees at most sites, she added.

#### ***5. New System Operational Requests.***

No new SORs were submitted prior to today's meeting.

#### ***6. Recommended Operations for August 18-31.***

Recommended operations were summarized during a previous agenda item.

#### ***7. Other.***

***A. Lifting MOP at Snake Pools.*** Bettin said this is traditionally the time of year when the MOP restriction is lifted at Ice Harbor, Little Goose, and Lower Monumental; we would like to end MOP today, so the full operating range is available at those projects, he said. Chris Ross noted that the BiOp specifies that MOP be maintained while substantial numbers of juvenile migrants are present in the system; we'll need to take that into account. We'll be talking about that at next week's FPAC meeting, said Wagner; we can revisit the discussion of when to lift the MOP operation at the August 20 TMT meeting.

***B. Line Outage at Lower Granite.*** Bettin said the line at Lower Granite will need to be taken out of service for eight hours on August 28 to complete the previously-mentioned repairs at that project. The project will release 5 kcfs through the powerhouse at speed no load, and make up the rest of the flow to 11.5 kcfs through spill. There may be some need to fill the reservoir above MOP during the outage, but inflow will be low and that fill may be small.

**C. BPA Transmission Business Line Transmission Limitations.** Bettin said BPA will provide a presentation on the West of Hatwai restriction, the north of John Day cutplane and transmission system limitations at a September TMT meeting.

**8. Next TMT Meeting Date.**

The next meeting of the Technical Management Team was set for Wednesday, August 20. Meeting summary prepared by Jeff Kuechle.

**TMT PARTICIPANT LIST  
August 13, 2003**

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