

**TECHNICAL MANAGEMENT TEAM  
MEETING NOTES  
June 23, 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.

**Hanford Reach Summary:**

Chris Carlson, Grant County PUD, gave a summary report of operations in the Hanford Reach. On April 5<sup>th</sup>, the agreement began with multiple agencies which sought to hit a series of targets and bands for operations in Hanford Reach and Vernita Bar. Related to Hanford Reach, Chris said compliance with the agreement is a balancing act of a number of issues which need managing. This is not an exact science because water flows drop off over the weekend. As load on Monday increases significantly so does the flow, the PUD tries to stay within the band width but it is not required on Mondays.

March 21-June 12 was a protection period. This year, there have been many differences from previous years, including a four week period during which flows were at a minimums over the weekend. Of the 84-day period, 75 days were within the criteria. Hourly, the PUD stayed within the band percentage 97.1% of the time. The PUD believes this year has been the most successful yet.

**ACTION:** Chris Carlson’s year end report will be forwarded to the COE for inclusion on the TMT website.

**Libby Operations for Summer:**

Following up on last week’s call, the salmon managers had discussions, looked at modeling and put together SOR 2004-14: After the sturgeon operation, provide stable flows to reach elevation 2439’ by August 31. In September, maintain stable flows for Montana needs by drafting to flood control early or through a Canadian swap (Scenario 1 from the COE).

Montana expressed appreciation for consideration for and attempts to meet Montana’s request. The SOR looks very similar to what Montana is seeking. The goal is to have as flat of flows as possible and end at the target elevation. If the action agencies can get an agreement with Canada, Montana would like to come back with a modified operation. Until then, Montana is supportive and appreciative of the salmon managers’ SOR.

**ACTION:** The following two-week operation will be implemented: Complete the

sturgeon pulse on 6/27, then ramp down using bull trout ramp rates to near 12.5 kcfs, and hold steady until further notice. The COE will use Scenario 1 as the base case for discussion with Canada about a swap.

A question was raised about the feasibility of shifting flood control early to allow stable flows in September. The COE responded that this is possible, and that a lot of variables will need to be considered such as the other multi-purpose uses of the river.

**Mid-Columbia Flow Objectives:**

The action agencies reported that they are on course for refill of Grand Coulee to begin on 6/30. Grand Coulee is expected to refill to 1289' on 7/5.

**SOR 2004 C-5 – Zone 6 Treaty Fishing:**

SOR 2004 C-5 was distributed today, and requested the following operation: From 6/23 at 6 am to 6/25 at 6 pm, hold the pools at Bonneville, The Dalles and John Day within 1' of full. The tribes are expecting somewhere in the top 3-5 years of fish numbers since the 1950's! There are an estimated 40% of the nets in the Bonneville pool, 30% in John Day and 30% in The Dalles pool. Kyle will let the COE know where the nets are distributed as soon as possible.

**Request for Action:** At an August TMT meeting, Cindy LeFleur (WDFW) and Kyle Martin (CRITFC) will bring numbers and an analysis of fish age class to make initial thoughts on the effect of the 2001 low flow year on returning adults.

**ACTION:** The COE sent out the following teletype: Hold the pools within 75-76.5' as a hard constraint. The COE sent a goal statement to the operators as requested by CRITFC and provided a copy for Kyle at today's meeting.

**McNary End of Spill and Start of Transport:**

Flows at McNary have been below 220 kcfs for 6 days. The tailwater gauge at McNary has been showing temperatures above 62° since Monday, 6/21. As such, the COE is prepared to collect and transport fish at McNary today. Spill ended this morning and will not resume this evening unless it is involuntary spill. Oregon responded that they understand the criteria and accept the operation. Oregon would also like continued and in-depth discussions about new transportation data as soon as it is no longer preliminary so TMT can be responsive and adaptive in its on-going management role.

**Dworshak Summer Operations:**

TMT began discussions of possibilities for summer operations at Dworshak. The COE and CRITFC did model runs to assist the conversation. Kyle's information used: 1979, '91, and '94 weather information, 2000 Dworshak and Brownlee water temperatures and 1988 tributary inflows. The goals were to model Dworshak flows and elevations from summer operation proposals, and evaluate impacts on elevation, water temperature, recreation and refill.

Regarding the hatchery: In recent discussions, the hatchery managers have said that 45-

48° is an acceptable temperature range, and that they do not want the water to be too cold for migrating fall chinook.

**ACTION:** The following new models will be presented at the next TMT meeting, per requests from today:

- A full powerhouse model until elevation 1520 is reached.

Dave Statler, Nez Perce, suggested that when TMT begins tracking the natural hydrograph, be sure to add cooling water at the beginning of July to help cool the system a bit sooner.

Further modeling will be done and more discussion will occur at FPAC on the biological implications of the model runs. There will be a June 30 face to face TMT meeting to review the models and have further discussions about Dworshak operations. June 30 will be the end of refill so a new operation will need to start on July 1. Paul Wagner, NOAA, suggested that this week's operation should begin building cooler water, so perhaps move from 52° to 50°. The Nez Perce want to hold 58-60° in the Clearwater for juveniles, so Dave Statler suggested that when the temperatures start to go above 60°, then step down to 50°. Russ Kiefer, Idaho, suggested holding off on using the cooler water until absolutely necessary, in the interest of conserving the cool water. The COE suggested reviewing the cool temperature mass/volume/elevation information next week.

After discussion with the COE's water quality people, TMT agreed that beginning to move the water now will help with the early July temperature peak at McNary.

**ACTION:** The COE will do their best to get to 50° temperatures out of Dworshak, and per Nez Perce's suggestion, err on the warmer side for the migrants.

**Status of Operations:**

*Reservoirs:* Libby is 17' from full and will reduce to 12.5 kcfs as per the discussion from earlier today (see above). Grand Coulee is around 1285.5-1286'. Hungry Horse is within 1' from full and will avoid fill and spill. Upper Snake augmentation: Boise is releasing 300 cfs out and expecting 300 kaf out, although this is uncertain. Dworshak is 1.6' from full and filling, expected to fill on 6/30. Lower Granite is releasing 50 kcfs.

*Fish status:* Subyearlings at Lower Granite are high in numbers, arriving at an average 30,000/day. McNary numbers jumped from 48,000 to 600,000 in 6 days! Yearling steelhead numbers saw a plateau a few weeks ago and are meeting expectations at Lower Granite.

*Water quality:* There were a number of exceedances on 6/22, attributed to high air temperatures influencing TDG. Things are back under control now.

**The Dalles Spill Outage:**

Rock Peters, Portland District COE, described a situation involving significant erosion at a spill apron at The Dalles. A diver needs to go in to assess the damage, which will

require a 4 hour outage tomorrow (6/24). Rock listed a range of options for operations if needed:

- Reduce spill to 30%;
- Spread spill across the entire spillway; and
- Stop spill.

TMT agreed to the following operation: From 8 am-noon (plus or minus), stop spill for the diver. Kyle Martin will inform the tribal fishers of the operation. Once the diver has done the assessment, move forward keeping in mind that structural and safety concerns are top priorities. There may be a follow-up discussion with the region on Monday 6/28, at 10 am. TMT will also discuss this at the June 30 TMT meeting.

### **SOR 2004-15:**

The salmon managers put forth SOR 2004-15, requesting that BiOp spill begin on 7/1 – this SOR clarifies the salmon managers’ position with regards to Bonneville. They requested to go through the differences of the test and the requested operations. Rock Peters will meet with FPAC after the report on survival tests is released. The discussion is expected to occur around mid-July. Oregon noted that the salmon managers do not agree on the type of study and welcome conversation on this. There will be a FDRWG meeting on 7/9 to discuss the McNary 1% test, at NOAA at 9 am in the first floor conference room. There will be no more operations above 1% at McNary.

### **Next Meeting, June 23<sup>rd</sup>, 9am-noon:**

Agenda Items:

- Dworshak Operations
- The Dalles Spill Outage Update

### ***1. Greeting and Introductions***

The June 23 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. Libby Operations.***

David Wills said the salmon managers had submitted an SOR in response to the discussion at the last TMT meeting. This SOR (2004-14), supported by the Fish and Wildlife Service, IDFG, ODFW, WDFW, Montana FWP, the Nez Perce and Shoshone-Bannock Tribes and CRITFC, requests the following specific operations:

- Maintain stable outflows from Libby after the sturgeon pulse operation while drafting Libby to elevation 2439 by August 31.
- Provide stable flows during September to meet Montana’s request for a reduced varial zone during the productive summer months by either drafting early toward the January 1 flood control elevation or by pursuing an agreement with Canada (ie Libby/Arrow swap

or passage of September releases through Kootenay Lake).

Henriksen said the Corps had modeled this operation; it shows that a flat flow of 12.5 Kcfs following the sturgeon pulse would draft the project to elevation 2439 by August 31. The Corps modeled a second scenario, under which flows would gradually be stepped down from 16 Kcfs to 6 Kcfs by August 31, again ending with Libby at elevation 2439 on that date.

Jim Litchfield said the flat flow scenario is very close to what the State of Montana has in mind; we would like to keep outflow as flat as possible, and end at 2439 by August 31, he said. Litchfield said Montana will continue to pursue a Libby-Arrow swap in 2004, however, which could, if successful, change the operation to something closer to the gradually-declining outflow shown in Scenario 2. John Wellschlager noted that BPA believes that a Libby-Arrow swap is unlikely in 2004. Brian Merotz said Canada is supportive of the flat flow operation.

Henriksen said the Corps will ramp Libby outflow down, beginning after 6 p.m. on Sunday, to about 12.5 Kcfs. She proposed that the Corps and Bonneville use Scenario 1 as the base case for any discussions with Canada; it was so agreed. In response to a question from Merotz, Henriksen said the two scenarios modeled most recently by the Corps were run off an assumption of 4.44 MAF at Libby, the most recent forecast volume.

What about the possibility of shifting some of the Libby flood control draft to September? Ron Boyce asked. That's a moving target, Henriksen replied; the Corps does have early forecasting capability for Libby this year, and the variable end-of-December flood control point could be as high as 2423 feet. You're talking about drafting the water that would normally come out later in the fall in September? Scott Bettin asked. Correct, Boyce replied. Bettin said that is not a requirement in the Biological Opinion; it therefore becomes an economic decision on Bonneville's part. Obviously there are a lot of multi-purpose needs that will have to be considered in such a decision, including chum operations, Henriksen added. In the meantime, said Silverberg, flows at Libby will be ramped down to about 12.5 Kcfs beginning Sunday night, and we will discuss this further at a future TMT meeting.

### ***3. Hanford Reach Update.***

Chris Carlson reported that the 2004 Hanford Reach fish protection operation started on March 20 and ended on June 12, when 400 temperature units from the end of spawning was achieved. He noted that this year's agreement was the result of seven years of research, and went briefly through the background and structure of this year's agreement. Strict compliance isn't really possible because of the complex nature of the logistics in the Mid-Columbia; it is not an exact science, Carlson said – particularly on Sundays, when flows and load are low, and Monday, when flows increase quickly in response to rising load. Carlson detailed some of the other exceptions to the flow bands. He said flows were controlled for 84 days in 2004; on 75 of those days, we were within the flow band (+5%).

The group discussed who was responsible for maintaining load on the weekends under the 2004 agreement; Wellschlager said it was BPA's understanding that it was the Mid-Columbia operators' responsibility. Carlson agreed, but noted that it was not always possible,

operationally, to do that. That's why Mondays were excluded from compliance, he said.

Carlson said that, on an hourly basis, Grant PUD was within compliance with the flow bands 97% of the time, a much higher percentage than in past years. He then went through the dates on which the flow bands were exceeded by more than 5 Kcfs; the last of those dates was June 10, when the 40 Kcfs flow band was exceeded by 6 Kcfs. On a number of those days, the flow band was exceeded by only 6-7 Kcfs, Carlson noted; it was significantly exceeded on only five days. Will you publish a year-end report? Henriksen asked. Yes, Carlson replied – it is already in draft form, and should be available soon.

#### ***4. Mid-Columbia Flow Objectives.***

Henriksen said Priest Rapids continues to release between 125 and 135 Kcfs; the next milepost in operations is June 30 refill at Grand Coulee. Tony Norris said Grand Coulee is at about 1285 feet currently; the project is expected to fill significantly over 4<sup>th</sup> of July weekend, and Grand Coulee should touch 1289.5 Kcfs by Monday, July 5. The STP run shows Mid-Columbia flows between 110 and 110 Kcfs for the Monday-Sunday period preceding June 5, Henriksen said; flows will gradually decline from 125 Kcfs over the next week. In other words, we're on course to refill Grand Coulee by the first week in July, Bettin said.

#### ***5. Zone 6 Treaty Fishery.***

Kyle Martin said the tribes had submitted SOR 2004 C-5 on June 17, covering the summer treaty fishery. This SOR requests the following specific operations:

- Beginning at 6 a.m. on June 23, and ending at 6 p.m. on June 25:
- Bonneville pool: operate the pool within 1 foot from full pool (msl elevation 76.5-75.5)
- The Dalles (Celilo) pool: operate the pool within 1 foot from full pool (msl elevation 159.5-158.5)
- John Day pool: operate the pool within 1 foot from full pool (msl elevation 264.5-263.5)

Martin noted that, with a forecast summer chinook run of 90,000 adults, this is just the second time in the last 40 years that a summer treaty fishery has been possible. He added that CRITFC will be conducting an aerial survey of where the nets are placed and will contact Henriksen with this information. Bettin noted that, tomorrow morning, there will be a period of no spill at The Dalles; he suggested that the tribal fishers wait until that operation begins to set their nets in order to avoid being impacted.

Any thoughts about why this is such a good run? Litchfield asked. Summer chinook appear to be following the recent trends of record adult returns across all stocks, Cindy LeFleur replied – even this year's spring chinook run was a good run, despite the fact that it was overpredicted. We believe that ocean production is quite high right now, she said. Is it fair to say that the spill summer reduction in 2001 didn't have the negative biological impacts that were predicted at the time? Wellschlager asked. No, they did have an effect, particularly on the five-year-old age class of the 2005 spring chinook run, LeFleur said; it is possible that the summer chinook were less affected. It's too early to say that there was no impact from that operation,

Boyce observed – we’re still analyzing that, and will provide information to TMT once we have more data. It was agreed to discuss the available adult return data in the context of the 2001 summer spill program at an August TMT meeting.

What is the Corps’ planned operation? Martin asked. Henriksen said the Corps has sent out a teletype to Bonneville Dam and BPA to maintain 75-76.5 feet in elevation as a hard constraint and 75.5-76.5 as a soft constraint; we also reminded the project that the goal of this operation is to minimize wear and tear on the nets by minimizing pool fluctuations, Henriksen replied.

#### ***6. McNary 1% Test Operation.***

Turner said the Corps will not be scheduling any more maximum discharge tests at McNary for the immediate future; FFDRWG will meet in Portland at 9 a.m. July 9 at NOAA Fisheries’ Portland offices to discuss both short-term and longer-term McNary modernization test operations.

#### ***7. McNary End of Fish Spill and Start of Transport.***

Henriksen said that, at last week’s TMT meeting, the group agreed that, once “springlike” conditions ended – flow less than 220 Kcfs and temperatures above 62 degrees F in the McNary tailrace – voluntary spill for fish passage would end at McNary and transport would begin. Jim Adams said that, as of 5 a.m. today, water temperatures had been above the 62-degree threshold at the fixed monitoring station in the McNary tailwater for two days. Henriksen said flow at McNary has been below 220 Kcfs for the past six days. The Corps is now prepared to stop spill and begin collecting fish, Henriksen said.

There will continue to be some involuntary spill, Bettin said; would the salmon managers like us to shape that spill according to the SOR submitted last week? Yes, Wills replied – no change to the requested operation. In response to a question from Paul Wagner, Turner said the weather forecast for the McNary area is for air temperatures in the 90-100 degree range through Friday; there may be some cooling on Saturday. Bettin said voluntary spill ended at 6 a.m. this morning, and will not resume. Turner added that yesterday’s day-average flow at McNary was 204 Kcfs, down from 211 Kcfs on Monday. And again, said Bettin, involuntary spill will continue during nighttime hours until total river flow recedes to powerhouse capacity at McNary.

If there are no objections, said Turner, we will begin collection for transportation at McNary today. Boyce said that there needs to be some discussion of the most recent transport research data regarding the relative benefits of transport vs. in-river migration during this period; we will bring that to TMT for discussion. I understand, however, that these are the criteria in the BiOp, and Oregon will not object to the planned operation, he said. And we have agreed to have that discussion, once the information is finalized, said Turner. After a few minutes of additional discussion, no TMT objections were raised to the Corps’ proposed operation; fish collection for transport will begin today. It was further agreed that BPA and the Corps will shape the available spill into nighttime hours when the spill volume is less than 20% of the total river flow; there will be less than 40 Kcfs spill today, so spill will be shaped into nighttime hours tonight. Spill

will be continue 24 hours per day when the available spill is greater than 20% of total river flow.

### ***8. Dworshak Summer Operations.***

Wills said this topic was briefly discussed at the last TMT meeting; he noted that he had asked the Corps to model three potential operating scenarios for Dworshak summer operations. This topic was also discussed at yesterday's FPAC meeting, at which Kyle Martin agreed to produce some additional model runs. Wills noted that this is the beginning of the 2004 Dworshak discussion; he said he does not expect to make a decision on this operation at today's meeting.

Martin said he and Ben Cope of EPA had modeled three scenarios: the Nez Perce Tribe/Idaho plan, TMT's 2003 Dworshak operation, and the operation described in the 2000 Biological Opinion. He described the model parameters he and Cope used to generate these runs. Under the Nez Perce Tribe/Idaho plan, Dworshak outflow would be ramped up to 7 Kcfs on July 12; it would go to 10 Kcfs on July 19, to 14 Kcfs on July 26, and held at that volume until August 23, at which point it would be ramped down to 12 Kcfs, then to 9 Kcfs by August 30, to 7 Kcfs by September 6, to 4 Kcfs by September 13, and to minimum outflow (1.5 Kcfs) by September 20. Under this scenario, Dworshak would achieve elevation 1520 by September 20.

Under the TMT 2003 scenario, Dworshak outflow would be ramped up to 10 Kcfs by July 5, then to 14 Kcfs by July 12; Dworshak outflow would then be gradually ramped down by 1 Kcfs per week from 13.5 Kcfs on July 19 to 6.5 Kcfs by September 30. That outflow volume would then be held through September 19, at which point Dworshak outflow would be ramped down to minimum and elevation 1520 would be achieved.

Under the Biological Opinion scenario, Dworshak outflow would be ramped up to 14 Kcfs by July 5, and held at that volume through August 22. For the week of August 23-30, Dworshak outflow would be 7 Kcfs; it would then be ramped down to minimum outflow. Elevation 1520 would be achieved by August 31 under this plan.

In terms of the effects of these three scenarios on water temperatures at Lower Granite, temperatures would be highest through August 1 under the Nez Perce Tribe/Idaho plan; they would then decline sharply through the end of September. Under the TMT 2003 scenario, water temperatures would be lower through August 1, but would then rise through the end of August, followed by declining temperatures in September. Under the BiOp scenario, water temperatures would gradually rise from the second week in July through late September, at which point they would gradually decline.

Martin asked whether the TMT would like to see other scenarios modeled. In response to a question, Martin said the assumed operation for Brownlee is that the project would follow load during August and September. Henriksen said the Corps had modeled the same three scenarios in preparation for today's meeting, but did not track the temperature effects of these operations. She noted that the Corps had used an assumed volume of 2.4 MAF at Dworshak, which is slightly above the volume shown in the current water supply forecast. Some of the outflow volumes in the Corps model runs are slightly different from those shown in the CRITFC model runs, because the Corps modeled an operation that would not exceed the state TDG standards. In

response to a request from Bettin, Henriksen said the Corps will model a “no-spill” operation at Dworshak, showing a flat outflow of 10.5 Kcfs from Dworshak until elevation 1520 is achieved.

Dave Statler said that, from the Nez Perce perspective, he would prefer to see cooler water drawn from Dworshak starting on July 1, as natural flows begin to recede. That would provide some cooling effect and a better transition, in terms of temperature, Statler said. Is there any field data on the fork lengths of the Clearwater fish at this point? Martin asked. We have collected some information, but I don’t have it in front of me right now, Statler replied. That would be useful information for the salmon managers to consider, in terms of relative fork lengths in 2004 compared to this date in previous years, Martin observed. We can certainly put that together and bring it to the next FPAC meeting, Statler said. And how often will your crews be sampling? Martin asked. Once a week, Statler replied.

Can we do a “backcast” of forecast vs. observed water temperatures in 2003? Litchfield asked. I can put that together, Martin replied – that would be good information to have. My recollection is that, temperature-wise, the operation worked pretty well last year, Wellschlager observed. I believe that’s correct, but my question had to do with the accuracy of the model results, not the effects of the operation, said Litchfield.

Boyce said the salmon managers will discuss the biological implications of this data; it was agreed that TMT will meet on June 30 to discuss Dworshak operations. It was further agreed that the TMT will attempt to reach a decision on the Dworshak summer operation at that meeting. Jim Adams added that, in most years, there is a surplus of cold water in Dworshak reservoir at the end of the temperature control season, so if the TMT wants to go to a cooler outflow temperature beginning July 1, there should be adequate cold water available to do so.

It was noted that, according to Dworshak National Fish Hatchery personnel, a Dworshak outflow temperature of 45-48 degrees is compatible with the fish growth needs of the hatchery. However, we need to exercise care in water temperatures for the wild/natural fall chinook rearing in the Lower Clearwater, Russ Kiefer observed. It was agreed to reduce Dworshak outflow temperature from 52 degrees F to 50 degrees F as soon as possible. It was further agreed that the Corps will closely monitor temperatures in the Lower Clearwater to gauge the effects of this lower-temperature release from Dworshak. Henriksen said the Corps will produce an analysis of the current temperature stratification structure in Dworshak reservoir in time for discussion at next week’s TMT meeting. Henriksen said she will work with Dworshak project personnel to reduce Dworshak’s outflow temperature to as close to 50 degrees as possible, erring slightly on the high side.

### ***9. Status of Operation.***

Henriksen said Libby is at elevation 2442, 17 feet from full, filling slightly, and releasing 16 Kcfs. We will reduce outflow from that project to about 12.5 Kcfs by next Monday, June 28, she said. Norris said Grand Coulee is at about elevation 1286, currently, and will touch 1289.5 on June 5. Hungry Horse is very close to full at this point; the project personnel are watching inflows closely to avoid fill and spill. Hungry Horse will likely release about 4.5 Kcfs for flow augmentation once it fills. We’re still not sure we will receive flow augmentation water from

above Milner this year, said Norris; however, approximately 300 kaf is expected to be available from the Boise and Payette in 2004, and has already begun to be released – 150 kaf from the Payette, 40 kaf from the Boise, 85 Kcfs from high pumpers and 17.7 kaf from Oregon natural flows. Another 30-60 kaf may be available from the Snake above Milner, Norris said, but we don't know about that for sure at this point.

Dworshak is 1.6 feet from full and filling, said Henriksen; the project will fill by June 30. Flow at Lower Granite has been about 50 Kcfs over the past week; observed flow was 70 Kcfs for the spring period.

Moving on to the current status of the outmigration, Wagner said the main action is in subyearlings, with indices of about 30,000 at Lower Granite and lesser numbers (due to transportation) at the other Lower Snake projects. At McNary, the indices have jumped from 50,000 to more than 600,000 fish per day over the past few days. In terms of timing, the subyearling migration at Lower Granite was significantly earlier in 2004, compared to other recent years; it is lagging somewhat behind the curve at McNary. Steelhead passage at McNary has also lagged behind projections in 2004; at lower Granite, steelhead passage has closely followed the pre-season projections of timing and numbers. Yearling chinook and steelhead passage has also lagged behind projections at Rock Island.

Wellschlager said there are no power system problems to report at this time. Moving on to water quality, Adams said there were a number of TDG exceedences at multiple projects in the system last week, probably due to rising water temperatures; as a result, the spill caps were reduced significantly at a number of projects.

### ***10 The Dalles Spill Outage.***

Mike Langslay of the Corps said the Corps conducted a bathymetric survey of the stilling basin at The Dalles last week to check for erosion under the new, concentrated 6-bay spill pattern; significant erosion was found on the spillway apron. Langslay shared various bathymetric data for the spillway apron, comparing data from 1991, 1999, 2003 and 2004. Some of the eroded areas are now three feet deep, Langslay said; much of that damage appears to have occurred in the last eight weeks of spill. We need to put a diver in the water to survey the damage, he said, so that we can evaluate how to operate the project for the rest of the year. He said the plan is to stop spill for four hours tomorrow morning (beginning at 8 a.m.) to give the divers a chance to survey the damage.

We also need to discuss what the spill operation should be from here on out at The Dalles, said Langslay; options range from continuing to spill 40% of total river flow through six bays, reduce spill to 30% of total river flow (or possibly a lower percentage) through the six bays, continue at 40%, but spreading spill over more bays through the old juvenile spill pattern, or stopping spill altogether. One concern is the ongoing biological evaluation at The Dalles, said Langslay; as long as spill continues at some level in the six bays, we should be able to continue to get useful information. If we go to the juvenile spill pattern, however, future data collection will be compromised. The juvenile evaluation is currently scheduled to continue to July 18. Turner observed that, as total river flow falls, under the 40% protocol, spill volumes will also be

reduced. Another Corps representative replied that, as total river flow recedes, so do tailwater elevations at the project, so even at reduced spill volumes, the erosion would likely continue.

No TMT objections were raised to tomorrow's spill stoppage to allow the diver survey of The Dalles spillway apron. And what will be the process for making a decision on future spill at The Dalles? Boyce asked. It will depend on what the divers find, Rock Peters replied; it will depend on whether it's a structural integrity or a cost-to-fix issue. We will make a recommendation based on what the divers find and upcoming flow and spill levels, so that we avoid a multi-million-dollar fix, Peters said. Certainly structural safety should be an issue, said Boyce, but you also need to factor in the biological effects of any curtailment of The Dalles spill. Once the cost-to-fix issue comes under discussion, he said, that's the point at which you'll need to engage the region. Understood, said Peters – we will convene a TMT conference call on Monday to discuss what the divers find and what the Corps intends to do. It was further agreed that, if the divers need more than four hours to complete their survey, they will have the time they need. Henriksen said she will notify the TMT about the time and call-in number for that conference.

### ***11. Lower Columbia River Spill Program.***

On June 22, the salmon managers submitted SOR 2004-15. This SOR, supported by USFWS, ODFW, WDFW, the Nez Perce and Shoshone-Bannock Tribes, and CRITFC, requests the following specific operations:

- Continue implementing the BiOp spring spill program through June 30. Beginning on July 1, spill daily at Lower Columbia River projects according to the summer spill provisions contained in the 2000 BiOp.
- Spill 24 hours daily at John Day Dam at 30% of instantaneous flow
- Spill at The Dalles Dam shall occur for 24 hours a day at a level equal to 40% of instantaneous flow.
- Spill to the 120% gas cap at Bonneville Dam during nighttime hours and 75 Kcfs during daytime hours.

Wills went briefly through the justification for this SOR; please refer to the full text of this document (available via hot-link from the TMT homepage) for details. Boyce said the salmon managers understand that the regional discussion of the summer spill program is ongoing; the intent of this SOR is to ensure that there are no lapses in the summer spill program while this issue is being decided. Scott Boyd said he had heard that another spill proposal could be issued as soon as this afternoon.

Henriksen said a letter on this issue is available from the Joint Technical Team. Peters said the Corps received the JTS letter in May; it was focused on a technical response to a proposal to test 50 Kcfs spill vs. BiOp spill at Bonneville. The Corps responded to the technical comments in the letter, which also raised some policy issues. From a larger perspective, the study itself is a valid test; however, when it was designed, we were hoping that we would be able to get a full differential in the BiOp spill – 75 Kcfs day, 140 Kcfs at night. That has the potential to compromise the differences in that test, because we could see spill as low as 80 or 90 Kcfs at

night, Peters said. Wills said the salmon managers would like to sit down with the Corps in another venue – perhaps at FPAC – to discuss the Corps’ response to the JTS letter. It was so agreed.

**12. Next TMT Meeting date.**

A TMT conference call was scheduled for 10 a.m. Monday to discuss spill operations and erosion at The Dalles. The next TMT meeting was set for June 30. Meeting summary prepared by Jeff Kuechle. (Meeting lasted 3.5 hours)

**TMT PARTICIPANT LIST**

**June 23, 2004**

<b>Name</b>	<b>Affiliation</b>
Kyle Martin	CRITFC
Mike O’Bryant	CBB
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David Benner	FPC
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