

# COLUMBIA RIVER REGIONAL FORUM

## TECHNICAL MANAGEMENT TEAM

### MEETING NOTES

September 3, 2003

## 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.

#### **Dworshak Operations:**

Per last week's TMT discussion on Dworshak operations, the Salmon Managers developed an SOR (2003-14) requesting a flat flow out of the project to maintain temperatures between 44 and 48 degrees. Jim Adams, COE, explained the current Dworshak operation and offered alternative suggestions that would meet the needs of the Salmon Managers.

**ACTION:** As agreed to by the TMT, the COE will maintain the current operation at Dworshak and switch to all undershot mode if temperatures are above 45°.

#### **2004 Water Management Plan:**

During last week's TMT meeting, members developed a list of items in the WMP to further discuss today. The group flagged the issues that will need to be addressed and put a time frame on when decisions will be made. These issues will then be taken to the IT for approval. The following bullets summarize today's discussion:

- **Process Changes to the BiOp:** TMT members discussed the BiOp remand and how that might affect this group in making changes. They agreed the introduction should address that there is a potential for change to the WMP due to decisions made re: the remand in the next year. Also, a note will be put in that the COE is in consultation with USFWS on Libby operations, which could affect the USFWS BiOp. A third issue that will be included is how TMT will address recommendations from the NWPPC.
- **5 kcfs at BON Corner Collector:** SRWG will look at test design proposals at an AFEP meeting Sept. 16-18. The outcome of those decisions will be included in the Spring/Summer update to the WMP.
- **Libby Ramp Rates:** A typo was noted in the USFWS Bull Trout BiOp – Dave Wills will make corrections and update TMT on the change at next week's meeting.
- **RSW Operations at Lower Granite:** SRWG will research this and FPOM will implement the decision using data from '03 tests – available in November. This information will be included in the Spring/Summer update to the WMP.

- Ice Harbor Operations/Research Plan Review: Again, SRWG will research, FPOM will implement, and information will be included in the Spring/Summer update. There needs to be a loop back from FPOM to TMT as to changes to the BiOp; agencies should be urged to attend and support this and other forums.
- Begin/End Spill: IT will begin to discuss this policy issue at their September 4 meeting and TMT will be updated at the September 10 TMT meeting. There may be a need for a joint TMT/IT meeting to discuss this issue.
- Transport and 85 kcfs: The current operation, transport all fish collected, is included in the '03 WMP. The new question raised by BPA is: Specific to April/May, use spill to leave fish in river or use the bypass facilities to leave fish in river? TMT felt that this may be an appropriate question for FPOM to answer (what are the technical differences of the two?) and bring to TMT for a full discussion.
  - ACTION: FPAC will discuss this issue and make recommendations to TMT based on biological research.
- Albeni Falls Operations: Note that it is anticipated this operation will be reviewed by ISAB (Lake Ponderay levels) prior to October 31.
  - ACTION: USFWS and NOAA are currently in negotiations on this issue. Paul Wagner will update TMT on those discussions at the September 24 meeting.
- Libby/Hungry Horse Drafting Strategies: Include a statement in the WMP that there are recommendations to change the current strategies, experiments may be underway and there may be a possible operation change in 2004. There is a PPC meeting Friday, Sept. 5 to discuss the recommendations, which will then go to AFEP and other forums.
  - ACTION: Paul Wagner will find out if and how CBFWA is involved in this process and inform TMT at next week's meeting.
- Research Appendix: There may be updates for new research to include. Mention pending research projects from NPPC and point the reader to other places for more detailed descriptions.
- BON Flow and Spill Revisions: Desired changes, if major, should be brought forward through Implementation Plan discussions.
- John Day Operations RE: Research Results: Research results are due in November. In the meantime, NOAA will be working with the Action Agencies via the Implementation Plan.
- Spring Creek – Spill or No Spill? Discussions are underway regarding hatchery operation/releases and operating decisions. USFWS is coordinating the discussions.
- “Other Operations”: A suggestion was made that more operations outside the BiOp exist and could be added to Table 1.3 – the COE will add any that are brought forth by TMT members. The Columbia Falls operation will be deleted because it is a BiOp operation.
- Intro Paragraph RE: Why Items are in the WMP: TMT members will offer a paragraph on this, or leave it to other team members.
- Chum Planning Date: Criteria for beginning chum operations will be included in the WMP – the criteria will be discussed at the next TMT meeting.

**Other:**

*Libby Operations:* Cindy Henriksen, COE, reported that Libby was currently at elevation 2438' and releasing 11.9 kcfs (11 kcfs the previous night). The intended operation is to reduce outflows by 1 kcfs every other day to reach 6 kcfs by 9/13. Montana requested to flatten flows at 7 kcfs for the rest of September. The Action Agencies will discuss this possibility during next week's TMT meeting. For now, outflows will be reduced by 1 kcfs every other day.

*Treaty Fishing:* Cindy Henriksen reported that due to a number of non-power requirements (Grand Coulee nearing the bottom of its operating range, McNary refill, low flows, etc.), Bonneville may sink below its operating range this week, which may affect the treaty fishery.

*Reservoir Operations:* Tony Norris, BOR, reported that Hungry Horse reached elevation 3540' on 8/31; Grand Coulee reached 1278' on 8/29 and did not fill much over the weekend.

*Summer Flows:* The July-August seasonal average flow at Lower Granite was 32.3 kcfs and 135.5 at McNary.

### **Next Meeting, September 10:**

Agenda Items:

- IT Input on Spill Criteria/Process
- Albeni Falls Update
- Chum Criteria
- Transmission Business Line
- Libby Operations
- Schedule Year End Review

## **Meeting Minutes**

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

The September 3 Technical Management Team meeting was chaired by Rudd Turner 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 Turner at 503/808-3935.

### ***2. Discussion of 2004 Water Management Plan.***

At its last meeting, the TMT identified a list of potential issues associated with the 2004 Water Management Plan, said Silverberg; shall we just start at the top? Scott Bettin noted that a number of these issues are being addressed in other forums, and it may be sufficient to simply note where that is taking place.

Paul Wagner suggested that it may be helpful to briefly discuss the process for changing the Biological Opinion. The project operators, for example, feel that the 2004 Implementation Plan is the avenue through which many of these changes will be made,

Wagner said. The agencies have to be very clear in committing to the process as to when, and in what avenue, changes to the BiOp will be made, and in what time-frame, Wagner said. The Implementation Plan is developed by the action agencies, said Bettin; the 2004 Water Management Plan is our plan as well, and we're here to get input on that plan. It's an evolving process, said Wagner; it's not intended to remain static, but needs to be based on whatever new information comes to hand.

I see it as a hierarchical process, said Jim Litchfield – there's the BiOp, the findings letters that append to the BiOp, the Implementation Plan and the Water Management Plan. That's not quite the way things worked out last year, Wagner replied; having been through this last year, I wanted to be clear that there may be more rigid avenues and time-frames within which the structure of the BiOp can be changed.

The group also discussed the potential impact of the current litigation on the process for changing the BiOp. I think we at least need to reference, in the Water Management Plan, the fact that the 2000 BiOp has been remanded to NOAA Fisheries for revision, and a new BiOp is expected in May which may significantly change the operations in the 2004 WMP, Litchfield said.

The whole idea behind the Water Management Plan is to make the operation of the system as transparent to the public as possible, and to anticipate any contentious issues the TMT will need to deal with in the year ahead, so that we don't have to start those negotiations cold right before a decision needs to be made, said Silverberg. There was general agreement that this is the case.

We are also re-initiating consultation on the U.S. Fish and Wildlife Service on Libby Dam operations related to sturgeon and bull trout, which could have an impact, Turner said. We should also mention the Council's mainstem recommendations as something we're seeking to implement, Litchfield said. How are we going to do that? Wagner asked -- there is no Montana study in the AFEP submittal, and AFEP is going to start meeting next week. Montana is working on its study, and I simply think it would be astute of us to recognize that the Council has made a series of recommendations, and we're going to need to address them in the WMP, Litchfield replied.

Bettin noted that there are operational inconsistencies in the Council recommendations; he suggested that the TMT may want to approach Council staff to ask for their comments on the Water Management Plan. We could address them in the research appendix to the WMP, Tony Norris suggested. The Water Management Plan is intended to implement the BiOp, Norris observed – until the Council recommendations become an accepted part of the BiOp, we can't effectively address them. Litchfield replied that there are a number of actions in the Water Management Plan that have nothing to do with the BiOp. Again, it would be helpful to ask the Council, what are your expectations for 2004? Bettin said – it would be nice to know that. Perhaps we can simply acknowledge that the TMT is aware of the ongoing efforts of the Council staff to develop an implementation plan for the recommendations in the Council's mainstem amendments, Silverberg suggested.

Again, we need greater clarity on how changes will be made to the BiOp, Wagner said – this is an action agency document, and my concern is that you will be unwilling to consider any actions that represent a significant departure from the BiOp unless they are incorporated in the Implementation Plan. That’s correct, said Bettin – likely, those changes will be made in the 2004 Implementation Plan. Paul’s concern is, how do we make a change, in advance, such as putting criteria in place for when the summer spill program should end – should it end before August 31, or extend past that date? Silverberg noted -- we need to set up the processes to do that. We need to flag the areas where we have process questions, and help set up a process for resolving those issues. That resolution likely won’t occur at TMT, however, Silverberg observed. Mainly, I want to be sure we’re all clear that there is a process, and that process is X, Wagner said – we need to identify issues here at TMT, and make suggestions as to a process by which they can be resolved. There are a number of issues that won’t be resolved until we have certain information in hand, he said; it may be possible to say, that information is expected to be available at this point, and once that occurs, here is a process by which we anticipate it can be resolved.

The group then continued on through the list of issues identified at the last TMT meeting:

**1. 5 Kcfs at Bonneville Corner Collector:** Bettin noted that the issue here is that there is no agreement as to how to turn this structure, which is scheduled to be operational in March 2004, on. Is it a spillway? A sluiceway? he asked. Bettin noted that he has heard that the corner collector will need to have some spill running by it in order to operate most efficiently. Where, then, will this issue be addressed? Silverberg asked. Turner replied that FPOM will be discussing the corner collector operation in order to specify a Bonneville project operation for fish in the 2004 Fish Passage Plan. David Wills added that there are corner collector operational and study proposals that are being evaluated within AFEP. The question at AFEP, however, will be, what are you trying to test? said Bettin – there are conflicting viewpoints about that.

The group discussed the concept behind the corner collector, noting that it is essentially a surface collector designed to increase B2 fish passage efficiency, operating at the corner of the B2 forebay. The fish are placed in an area where egress is good and predation is less of a problem, Wagner explained. It’s a sluiceway that has been modified to operate as a surface collector; preliminary tests have shown that it is very effective in increasing fish passage efficiency, observed Ron Boyce. As Scott has said, we need to define the operational objectives for that structure through FPOM and AFEP. Wills said AFEP will be meeting on September 15, 16 and 17, at which time there will be further discussion of this topic.

**2. Libby Ramp Rates:** This is simply a typo in the U.S. Fish and Wildlife Service bull trout BiOp, Bettin explained; the BiOp doesn’t specify the number of units, and the question is simply how typos are corrected in that document. I’ll check, said Wills.

**3. RSW Operations at Lower Granite (12 vs. 24-Hour Spill, Curtain In or Out?):** This is primarily an FPOM issue, said Boyce; FPOM will develop a plan which we will then have an opportunity to review. The data from the 2003 test will be available in

November; that research will inform the operational recommendation for 2004. It sounds as though the spring/summer update to the 2004 WMP is the place to define the actual operation, Wagner observed.

**4. Ice Harbor Operations/Research Plan Review:** The research is now done at this project, and the question is, what do we do here? Boyce said – again, this will be handled through FPOM, AFEP and the spring/summer update.

**5. Beginning and End of Spring/Summer Spill Program:** It was agreed that this item will be discussed at tomorrow's IT meeting; eventually, TMT will likely be asked to develop the criteria under which this decision will be made. Boyce observed that the direction from the Federal Executives includes a statement to the effect that the economics of the spill program need to be considered; that is not something the TMT addresses, he said. Silverberg suggested that it is likely that the IT and TMT will be asked to consider this question in tandem, and that the IT will probably take on the cost aspect of this issue. I expect that the IT will discuss this issue at its September 4 meeting and will provide guidance at that point, Silverberg said. We'll discuss this issue again at TMT's September 10 meeting, Bettin said.

**6. Transport and 85 Kcfs at Snake River Projects:** I wanted to be sure that we include the criteria developed on this issue last year in the 2004 Water Management Plan, stating the relevant factors that need to be considered in this decision, Wagner explained – essentially, that there are seasonal factors to be taken into account in deciding whether we go to max transport or stay with a spread-the-risk strategy. It was observed that this is essentially a spill question and could be combined with Issue 5, above. They could be independent, as well, Boyce noted. There really isn't a forum that deals with transportation, Wagner observed; TMT is probably the most appropriate forum to deal with transportation issues, and the question is, what is the protocol for taking up potential operational changes? I would suggest that the Implementation Plan is the logical place to make such a change, Bettin said. Turner said that FPOM contains the remnants of the old Fish Transportation Oversight Team, and FPOM discussed and agreed to a change in the end date of transportation at McNary. This was incorporated into the 2003 Fish Passage Plan. After a few minutes of discussion, Idaho suggested asking FPAC to consider this question, and bring a recommendation back to TMT. Basically, we need an assessment of the technical differences in survival between the various operational choices available at this point in the season, said Bettin: transport, spill or bypass. If the difference in survival between spill and bypass is .0001%, but the difference in cost is millions of dollars, hopefully that can be factored in as well, he said.

**7. Albeni Falls Operation – AFEP Review?** This is mainly an information item, said Wagner; this issue will be reviewed by the ISAB this year. The time horizon for that review is three to six months out, however, Bettin observed. Wagner noted that there have been two different lake elevations that have been implemented at Lake Pend Oreille since 1996; kokanee spawn along the shore, and different lake elevations provide different levels of in-gravel productivity. There have been higher and lower lake elevations in effect at various times, he said; the plan is to go to an every-other-year,

higher vs. lower lake operation through 2007, at which point a decision will be made as to the most beneficial lake elevation.

It's essentially a tradeoff between the needs of kokanee and the needs of chum, which could use the water from Pend Oreille during the fall, Wagner said. Cindy Henriksen said that a decision about the winter lake elevation needs to be made by October 31 and implemented by November 15. But the ISAB's recommendation won't be available at that time, said Bettin – can we agree that the Fish and Wildlife Service, NOAA Fisheries and IDFG will decide whether, this year, we're in an up year or a down year at Lake Pend Oreille, then let the ISAB's recommendation guide future years' operations? After a brief discussion, it was so agreed. Wagner noted that 2002 was an "up" year, so 2003 will likely be a "down" year. It was agreed that NOAA Fisheries, USFWS and IDFG will make a recommendation on this issue within the next two weeks.

**8. Libby/Hungry Horse Drafting Strategies:** This discussion is obviously going to continue for a while, said Litchfield, but Montana would like to get its recommended operational changes in place by this winter. He noted that the Council is discussing what kind of evaluations need to be in place to support Montana's recommended operational changes to Libby and Hungry Horse drafting strategies, with the goal of implementing those changes next summer. Litchfield suggested that language to this effect be inserted in the 2004 WMP. It was added that CBFWA has volunteered to develop a study plan for Montana's proposed Libby and Hungry Horse operations; Wagner agreed to contact CBFWA regarding the status of that effort and will report back to the TMT at a future meeting. TMT members invited Montana to participate in the 2004 study development process for the Corps' AFEP and NPCC program, so that activities can be approved and implemented.

**9. Include Process Issues re: Potential BiOp Changes:** This topic was covered during the introduction to this agenda item.

**10. Research Appendix:** The issue here is that, as the Council and others in the region develop research recommendations, it may be necessary to change the research appendix to the 2004 WMP, Litchfield said. Also, that it is appropriate to mention that there is impending research for Libby, Hungry Horse and other projects, said Norris; in other words, we should not expect the research appendix to be a static document this year. There is also a question about what level of detail is appropriate to avoid excessive length and redundancy with the five-year implementation plan and Fish Passage Plan, Cindy Henriksen observed. After a few minutes of discussion, it was agreed to refer readers of the research appendix to the appropriate place to find more detailed information.

**11. Bonneville Flow and Spill Revisions:** What I have heard on this topic is that, if change, such as higher daytime spill, is desired here, the appropriate place to bring it up is the implementation planning process, Wagner said. No disagreements were raised to this statement. The only thing I would add is that, if changes are desired for 2004, they need to be submitted very quickly, because that implementation planning process is underway now, said Turner – the Implementation Plan is due by October 1.

**12. John Day Operations re: Research Results – Placeholder?** This is very similar to Item 11, said Bettin – it’s an issue that needs to be decided within the Implementation Plan. It was observed that the final results from the 2003 research at John Day won’t be available until November, which may present a timing problem. However, we could say that, based on previous years’ research, this is what we would do; if the 2003 results are similar, this is how we would operate John Day, Bettin said. If the research results do not support such a conclusion, however, I’m concerned that the action agencies will reply that it is too late to change the operation for 2004, Wagner said.

**13. Spring Creek – Spill or No Spill?** Wills said he doesn’t know, at this point, what the recommended Spring Creek operation is for 2004; some conversations occurred earlier this year, but they were inconclusive. He said he has been trying to discover what is planned in terms of further discussion of spill in support of the Spring Creek Hatchery releases, but there is no resolution yet. Wills said he will report back at a future TMT meeting once those discussions have borne fruit.

**14. Other Operations.** This section is intended to refer to non-BiOp operations on which TMT has some input, said Bettin. So essentially, we need to say that TMT will from time to time discuss non Bi-Op operations? Silverberg asked. That’s correct, Bettin replied – there is a table in the 2003 WMP, laying out the non-BiOp operations that may impact the TMT’s operational flexibility. Silverberg observed that the intent of the WMP is not only to discuss the TMT’s Biological Opinion responsibilities, but to inform readers of how the river is going to be operated in 2004. After a brief discussion, it was agreed to delete the Columbia Falls minimum flow from the list. Litchfield said that, to him, this list is incomplete; Bettin asked that any comments about other operations that should be included be submitted as soon as possible.

**15. Intro Paragraph: Why Things Are In the WMP:** Silverberg suggested that a TMT member volunteer to draft appropriate language for insertion in the opening section of the 2004 WMP. Litchfield read some language he has drafted regarding the remand of the 2000 BiOp; perhaps we should all take a stab at this, he suggested. It was agreed that anyone who wants to draft language for insertion into the opening paragraph do so.

**16. Chum Planning Date:** The planning date in the BiOp for the start of the chum operation is November 1, said Bettin; my concern is that we have no criteria for determining when enough fish are present on the spawning grounds to decide when to commence the chum operation in a given year. Basically, he said, I don’t want to get to the 11<sup>th</sup> hour before we make a decision on this issue; I’d like to start the discussion earlier, if possible. We have discussed such criteria in the past, said Litchfield; it would be helpful to include them in the WMP. I’ll dust those off and bring them to the next TMT meeting, said Wagner.

### ***3. Dworshak Water Temperature Operations.***

On September 2, the action agencies received SOR 2003-14. This SOR, supported by USFWS, NOAA Fisheries, IDFG, ODFW, WDFW and CRITFC, requests the following specific operations:

- If necessary to maintain water temperature criteria, increase outflows at Dworshak to 8 Kcfs beginning September 3 and continue through September 11. On September 12, use remaining storage water to ramp outflows down to the minimum Dworshak discharge; enough storage water should remain to provide a similar three-day rampdown as modeled in the August 25 STP run. September 3-11 outflows should be consistent at 8 Kcfs throughout each day with little daily load following fluctuations. Temperatures of Dworshak release water should be 44-48 degrees F. Whenever possible, meet both the 68 degree F temperature criteria at Lower Granite and the Dworshak release water of 44-48 degrees F.

Wills went briefly through the SOR, noting that Jim Adams had called him a week ago to explain the upcoming temperature changes at Dworshak. He wanted to know what the salmon managers would like to see as a preferred Dworshak operation, in the context of the current temperature situation at Lower Granite, Wills said. He noted that there have been blocks of time over the past few days when Lower Granite water temperatures have spiked above the 68-degree temperature criteria. The hatchery would prefer no more than a 4-degree F diurnal shift in Dworshak outflow temperatures, with a maximum daily discharge temperature of 52 degrees. This SOR is intended to spell out that operation, Wills said.

Jim Adams noted that the current daytime discharge at Dworshak is 8 Kcfs at 48 degrees; at night, the project is releasing 5.3 Kcfs at about 45 degrees. We could run a higher volume of cooler water at night, if the salmon managers desire, Adams said. We could also keep the discharge volumes the same but shift both units to undershot mode during the day, he said; the only downside to that option is that we will run out of cold water faster. Last year, however, we had 46-degree water available through the end of September, said Adams, the temperature profile in the reservoir looks similar this year, so I don't anticipate that we'll run out of cold water before that date.

The group briefly reviewed the most recent temperature information from the Lower Granite forebay, noting that the 68-degree temperature standard is being slightly exceeded (68.4 degree maximum) between the hours of 6 p.m. and midnight. Paul Wagner said he would be willing to try shifting both Dworshak units to undershot mode while keeping the current 8 Kcfs-5.3 Kcfs daytime-nighttime discharge volume regime in place, to see whether that would be enough to maintain Lower Granite forebay water temperatures below the 68-degree standard.

Scott Bettin noted that this is the typical water temperature pattern seen during the first week in September; part of the reason is that the discharge of warm water from the Hells Canyon Complex has increased. We have no control over that operation, he said. Turner noted that cooler weather and precipitation is expected to arrive in the Lewiston area this weekend.

After a few minutes of additional discussion, the TMT agreed to continue the current load-following operation at Dworshak (8 Kcfs during daytime hours, 5.3 Kcfs at night), but to shift both Dworshak units to undershot mode to reduce the average

discharge temperature at the project to about 45 degrees around the clock. Turner stated that the project would be able to accommodate this recommendation.

#### ***4. Other.***

With respect to Libby operations, Turner said the current elevation at the project is 2438 feet and drafting slightly. He said the Corps is working with BPA to develop a slower rampdown than previously discussed. We went to 11 Kcfs last night, down from 12 Kcfs, and are planning to reduce Libby outflow further, to 10 Kcfs, tomorrow. The Corps would then reduce Libby outflow by 1 Kcfs every other day, reaching 6 Kcfs discharge on September 13. Montana appreciates the slower rampdown but would prefer that you end at 7 Kcfs and hold that level through the end of the month, said Litchfield – that will make a large difference in the wetted perimeter and the aquatic environment for bull trout. That will require a faster rampdown rate, Bettin said, given BPA’s internal end-of-September target elevation. After a brief discussion, it was agreed that the Corps will do the appropriate calculation; it may be necessary to ramp down at a rate of one Kcfs per day, rather than one Kcfs every other day. We’ll send out a memo once the operation is defined, Henriksen said.

With respect to Dworshak operations, Wills said he checked with Bill Miller (Dworshak National Fish Hatchery manager) and Miller is fine with the above-recommended operation.

With respect to the fall treaty fishery, Henriksen said the Corps is trying to hold the requested pool elevation at Bonneville; however, with the current low flows in the system and Grand Coulee near its bottom elevation of 1278 feet, as well as the need to refill the pools at John Day and The Dalles, Bonneville pool may need to sag below its current operating range this week this week. I’ll check with our people to see whether we hear any complaints, said Kyle Martin. We can try to draft the pool during hours when the nets are out of the water, Bettin said.

Hungry Horse was just below elevation 3540 feet at midnight on August 31; Grand Coulee hit elevation 1278 feet for a couple of hours last Friday, Norris said. Grand Coulee is now gradually refilling. Our goal for September 30 is to refill to elevation 1283 feet at Grand Coulee, Norris said.

Turner noted that, at Lower Granite, the 2003 actual summer seasonal average was 32.3 Kcfs; at McNary, average summer seasonal discharge was 135.5 Kcfs, compared to the summer flow objectives of 51 Kcfs and 200 Kcfs, respectively. Summer precipitation was only 60-65% of average, he added. In other words, the spring BiOp flow objectives were met at Lower Granite, McNary, and Priest Rapids, but the summer objectives at Lower Granite and McNary were not met. The BiOp does not have a summer flow objective at Priest Rapids.

#### ***5. Next TMT Meeting.***

The next meeting of the Technical Management Team was set for Wednesday, September 10. Meeting summary prepared by Jeff Kuechle.

**TMT PARTICIPANT LIST**  
**September 3, 2003**

<b>Name</b>	<b>Affiliation</b>
Russ Kiefer	IDFG
David Wills	USFWS
Mary Karen Scullion	COE
Rudd Turner	COE
Scott Bettin	BPA
Shane Scott	Public Power Council
Jim Litchfield	Montana (consultant)
Robin Harkless	Facilitation Team
Colin Beam	PPM
Tom Haymaker	PNGC
Paul Wagner	NOAA Fisheries
John Wellschlagler	BPA
Kyle Martin	CRITFC
Mike O'Bryant	CBB
Ron Boyce	ODFW
Cindy Henriksen	COE
Tony Norris	USBR
Jim Adams	COE
Randy Wortman	COE
Nick Lane	BPA
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Dan Bedbury	EWEB
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