

Technical Management Team Meeting Notes

March 30, 2005

Corps of Engineers NW Division Offices, Portland, OR

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

Russell Langshaw, Grant County PUD, reported on the last week's conditions for emerging chum at Hanford Reach. Emergence began February 28. The average day discharges for March 21st-25th were: 99.5, 108.1, 113.6, 113.9, 101.9, 77.4, and 70. Discharges went outside the band width (set at 20 for those days) on Wednesday and Saturday.

ACTION: Russell will forward the current data to Cindy Henriksen later this week, including the estimated date for end of emergence.

Operations During Low Flow Years

Chum: A graph depicting 2000-05 chum catch numbers was presented by Ron Boyce, ODFW, showing a big increase in numbers this year between March 19th and 25th. The numbers overall are higher than previous years. Chum emergence will likely continue through April and possibly into May. Ron will continue to provide updated information to TMT until the end of emergence.

Start of Bonneville spill: Bonneville is currently operating to maintain an 11.5' tailwater. The BiOp calls for 75 kcfs daytime spill, which is targeted to start on April 10. There is concern, with the low flow year, that gas levels may be a problem for emerging chum. The action agencies requested feedback from the salmon managers on how to proceed. As follow-up from the last TMT meeting, the COE noted that a logger at Multnomah Creek is not available at this time, but monitoring of TDG will continue at Warrendale and Cascade Island. The salmon managers are interested in attaining more precise, real-time measurements.

ACTION: Dave Wills will check with USFWS staff on the possibility of doing real-time measurements at Multnomah Falls.

The salmon managers did some modeling exercises for the first two weeks in April. They are still looking to maintain 11.5' tailwater and target April 10 start of spill – which may require lesser spill volumes. One suggestion was to, if the choice between chum coverage or spill must be made, sequence the beginning of spill higher in the river. The salmon

managers responded that spring migrants are coming out from Bonneville pools faster than up-river, so sequencing does not help.

ACTION: There will be a TMT meeting on April 6 to revisit this issue and make a decision about what the operation will look like this year.

Shape of flow at Priest Rapids through April/May/June: The salmon managers sent a technical memo on March 23 providing guidance to the COE for the latest Q Adjust run. The March 29 run reflects that guidance, and includes: updated runoff volume forecast, refill Grand Coulee to 1285' by June 30, change the John Day pool elevation, draft Snake River pools to MOP, and increase Dworshak outflows to 5 kcfs. The COE noted that this new run is similar to the previously modeled run. A summary sheet shows the likelihood of meeting different flow objectives at Priest Rapids April-June. These are not expected or recommended operations, but a model of what operations could look like. COE modelers requested guidance from the salmon managers on shaping of flows for the spring and summer months at Priest Rapids and Grand Coulee drafts/elevations, as soon as possible.

ACTION: Until the April 6 TMT meeting, the salmon managers will monitor emergence and water supply, and look at this week's STP run. Learning from experience in 2001, there may be a desire to shift some water into May for steelhead. A decision is expected to be made at the 4/6 TMT meeting.

The Dalles Operations

Laurie Ebner, Walla Walla COE, reported on installation of "dogging" devices that is scheduled to begin tomorrow (3/31). A model study will be conducted next week to identify operational flexibility at spill bays 1 and 2. The current plan is to dog open bays 3-6 when spill begins (April 10).

ACTION: If the plan to begin spill on 4/10 changes, TMT will inform Laurie so she can inform the operators. Otherwise, the bays will be dogged off on April 10.

Spring Creek Spill

Dave Wills reported that about 60% of the hatchery fish passed the project during the two-day corner collector operation.

NOTE: TMT members agreed on the need to consider the effects of gas levels at the Bonneville forebay and on emerging chum when implementing spring spill at The Dalles.

Water Management Plan Spring/Summer Update

The spring/summer update includes that Lower Snake operating ranges are targeted to begin April 3 (MOP+1 at Little Goose, Lower Granite, and Ice Harbor; MOP at Lower Monumental). The Ice Harbor RSW test will be implemented from April 4-14th, requiring spill. Testers would like to have the RSW operating range fixed for the duration of the test. Given this, TMT was asked to consider how to proceed with operation ranges in the

Lower Snake this year. The salmon managers agreed with the desire to have a consistent condition for the test at Ice Harbor.

ACTION: As agreed to by the TMT, the action agencies will operate Ice Harbor to MOP+1 on April 4. And, target Lower Granite to operate to MOP+1 on April 4, Little Goose to MOP+1 on April 5, and Lower Monumental to MOP on April 6, unless fish numbers continue to be very low. The salmon managers will contact the COE this Friday (4/1) by 1:00 pm to coordinate. MOP operations will begin at 5:00 pm at each project.

The latest draft WMP spring/summer update (March 30) is on the TMT web page. The April final water supply forecast will be included in the next draft. No additional comments have been received on the update since the last meeting, but continue to be welcome.

Upper Snake Operations

Tony Norris, BOR, reported on available water for flow augmentation in the Lower Snake. The total volume expected is 144 kaf, from the following areas: 78 kaf from Palisades, 48 kaf from pumpers, 17.6 kaf from Oregon natural flows, and 1 kaf from Lemhi.

CRITFC 2005 River Operations Plan

Kyle Martin provided an overview of CRITFC's River Operations Plan for this year. Overall goals are to: establish normative hydrograph, lessen water particles and improve fish travel time, and create normative dam passage conditions.

Objectives included:

- Use the CBFWA process for decision-making (not the Regional Forum);
- No emergency curtailment of spill;
- No additional water withdrawal for drought;
- Continue 2001 water acquisition programs – BPA and BOR;
- Modify flood control rule curves;
- Draw Lower Granite down by 10' in the summer;
- Delay Lake Roosevelt refill;
- Decrease power peaking flow fluctuations (particularly in Hanford Reach);
- Do spring RSW tests at Lower Granite and Ice Harbor, and summer test at Ice Harbor.

The overview also included flow objectives and spill recommendations from CRITFC's perspective.

TMT member comments and questions:

- How could this operation affect 2006? Kyle will share this information with TMT at a later date.
- The CRITFC plan used the Genyses model, which is different from the COE's Q Adjust in that it focuses on power, not flows. Kyle offered that CRITFC staff would be willing to work with the COE in understanding how this plan could be compared

with the WMP. **ACTION**: Kyle will send the spreadsheet with numbers used in the analysis to the COE.

- Some objectives, from a federal perspective, are not legally possible. The CRITFC plan did not integrate legal constraints, but from a strictly technical perspective, instead offered an operation to benefit fish.
- Oregon shared appreciation for CRITFC's efforts in putting together a plan that seeks to make improvements to fish, and encouraged TMT to consider some of the innovative concepts in the Plan.
- How will comments to the Plan be addressed and/or incorporated?

ACTION: CRITFC requested written feedback on the 2005 CRITFC River Operations Plan from the action agencies by April 13.

Graphs/Graphics

The COE would like feedback on the graphs of the Q Adjust model runs that were presented at the 3/23 TMT meeting. The COE is also developing an ESP model put into similar format as STP in terms of monthly scenarios.

ACTION: The COE requested feedback on the graphs by Monday, April 4th.

Status of Operations

Reservoirs – Libby is at elevation 2413', releasing 4 kcfs. The March final water supply forecast is 5.37 MAF. The COE is waiting for feedback from the USFWS about potential sturgeon operations. The Dworshak water supply forecast is 1.42 MAF; the project is at elevation 1577', releasing 1.6 kcfs. Grand Coulee is at 1257.4', targeting 1255' on Friday and Monday (4/1 and 4/4). Hungry Horse is at elevation 3548.2'.

Fish – The Dworshak hatchery is planning to implement the release of spring chinook next Monday, 4/4, evening. Conditions are currently good for this operation. Dworshak flows will increase to ~4 kcfs during the release (4/4 and 4/6).

Power – The system is operating to meet Grand Coulee elevation targets.

Water quality – Laura Hamilton, COE, noted that some monitoring gauges were coming back on line, and were almost done.

Actions from 3/30 TMT Meeting

- Feedback on graphs/graphics – by **Monday, 4/4**
- Coordination with COE re: fish numbers, start of MOP operations – salmon managers, **Friday 4/1**
- Written feedback from action agencies on CRITFC's River Operations Plan for 2005 – **By 4/13**
- Check on availability of USFWS staff to do real-time measurements at Multnomah Falls – Dave Wills
- Coordination on start of spill with operators at The Dalles – TMT

- Current Hanford Reach data to Cindy Henriksen for posting to TMT web page – Russell Langshaw, ASAP

Next TMT Meeting, April 6, 9:00 am

Agenda Items Include:

- Chum update/Operations during low flow years
- Water supply
- Shape/flow at Priest Rapids

1. Greetings and Introductions.

Today's Technical Management Team meeting was chaired by Cindy Henriksen and facilitated by Donna Silverberg. The following is a summary (not a verbatim transcript) of the items discussed and decisions made at this meeting. Anyone with questions or comments about these notes should contact Henriksen at 503/808-3945.

2. Hanford Reach Update.

Russell Langshaw said that, currently, the Hanford Reach chinook are at 628 temperature units past the end of spawning. Emergence began February 28. The minimum Vernita Bar flow is 65 kcfs; we've been in the Hanford Reach protection mode for about three weeks now. We're having some difficulties with our flows; we're doing a balloon-tag study in conjunction with our advanced turbine testing. We've had to cancel quite a few of our planned experiments to meet the Hanford Reach minimum flow. Langshaw noted that, over the past week, the flow band has varied between 20 and 40 Kcfs; the band was exceeded on only two days, March 23 and March 26, by less than 5 Kcfs. Daily Priest Rapids discharge varied between 67 Kcfs and 129 Kcfs last week.

When will the weekend constraint go into effect? Paul Wagner asked. That's difficult to forecast, Langshaw replied; we're gaining about 5 temperature units per day, so it will probably be about the third week in April. The weekend constraint will be an average of the past four days' minimum flow, once we reach 800 temperature units past spawning. Cindy LeFleur said her understanding is that the current estimate of the end of emergence is May 14. Langshaw said he will send an email to Henriksen providing the most recent Hanford Reach numbers available, for posting to the TMT homepage.

3. Operations During Low-Flow Years.

Henriksen said that she had posted the most recent chum data from ODFW to the TMT homepage; there were some discrepancies regarding the dates shown in this data. This shows the 2000-2005 chum catch in the Ives Island area, said Ron Boyce; the recent seine catches have really shot up. So far, we're ahead of the last five years for the chum catches for this date. We expect to see catches continue all through April, and perhaps into May, Boyce said. We have also updated the emergence date predictions, he said; the predicted end of emergence is still April 24. Boyce emphasized that this is just an estimate, and there could be considerable variability in the actual date of the end of

emergence. The bottom line is that we're seeing a surprisingly large number of chum in our Ives Island field surveys, Boyce said.

In response to a question, Boyce said the water temperatures recorded so far in 2005 have been no warmer than in previous years; it's too soon to say whether this year's emergence timing is earlier than average. Is there any correlation between redd depth and emergence timing? John Wellschlager asked. We can't answer that question at this point, but we are collecting data that may help answer it after the season, Boyce replied.

Moving on, Henriksen said the current operation at Bonneville is to maintain a minimum 11.5-foot tailwater elevation below that project. Looking forward, the start of the spring spill season at Ice Harbor and the Lower Columbia projects is eminent. We will be spilling 75 Kcfs during the day and up to the gas cap at night at Bonneville, she said. In this low-flow year, we will be maintaining the 11.5-foot tailwater elevation, plus spill, Henriksen said; we wanted to get some feedback from the salmon managers in terms of how to handle that operation, given the fact that it raises depth compensation and TDG concerns for the chum. Wellschlager noted that, during the Spring Creek operation, even that minimal amount of spill caused serious TDG concerns. At 75 Kcfs of spill, more than half of the total river flow will be spilled at Bonneville. Flows have been averaging about 120 Kcfs to maintain the 11.5-foot minimum tailwater elevation. It's doubtful that we can spill 75 kcfs and stay under the gas cap, said David Wills.

Henriksen said that the Corps investigated the possibility of installing a data logger at the Multnomah Creek spawning site, but the funding was not available for that. We will continue to monitor TDG levels at Cascade Island and Warrendale, however, she said. I think we need some more precision, said Boyce. Even with a logger, that wouldn't give us real-time data, Henriksen observed. Wills said he has not yet had the opportunity to discuss real-time monitoring over the spawning grounds with USFWS field personnel, but will do so.

Wills said the salmon managers have discussed spill operations at Bonneville, but don't have a concrete proposal at this point. We would like to continue to monitor emergence numbers, and use April 10 as the planning date for the start of spill. We would like to provide both spill and protection, to the greatest extent possible, for the chum redds. We have discussed various possibilities, in terms of increasing flows during the early part of April, but again, we don't have a concrete proposal at this point, Wills said.

If we're going to have to choose between providing spill and protecting chum, perhaps we could split the baby, starting spill at the upstream projects and sequencing that in day by day, suggested Wellschlager. That would at least give you a few extra days of protection for the chum redds, he said. Margaret Filardo noted that, if recent rain events continue, and tailwater elevations below Bonneville remain well above 11.5 feet, as they are currently, it may be possible to begin spill at Bonneville on April 10. All we can do is continue to monitor the situation; if spill has to start at a lesser volume, then that's what we'll do, she said.

After a few minutes of additional discussion, it was agreed that the TMT will meet to discuss the start of spring spill at Bonneville on April 6.

When will we hit the mid-to-high 90% emergence point for chum? Wellschlager asked. I'll try to provide that, based on historic emergence timing, Boyce replied.

The discussion then turned to yearling and subyearling chinook passage indices at Bonneville; about 900 yearlings and about 4,300 subyearlings have passed Bonneville to date. Boyce noted that most of the yearling chinook are hatchery fish, and the majority of the subyearlings are wild. He added that there are already a significant number of chinook passing Bonneville, so that needs to be taken into account in the spill decision. Boyce added that, given current high flows in the lower river, due to the recent precipitation events, it may make sense to try to store as much water as possible, currently. We're storing as much as we can, Henriksen replied.

Moving on to Priest Rapids operations, Henriksen reminded the group that, at the last TMT meeting, the action agencies had asked the salmon managers for some guidance with respect to optimal Priest Rapids operations during April. We wanted something to model, essentially, and we did receive a memo from the salmon managers, dated March 23. We used that memo to generate a QADJ run, she said. We looked at that model run, as well as the March final water supply forecast, said Wills; we then tried to make a better situation out of a bad situation. What we're looking at is shaving about 5 feet off the Grand Coulee refill, adding more water by manipulating John Day pool, and starting flow augmentation from Dworshak somewhat sooner than usual, in order to increase lower river flows during the critical period in early April.

We did update the water supply forecast, but it isn't that much different than the last time we looked at it, Henriksen said. What the most recent QADJ run shows is a low flow target – 70 Kcfs – at Priest Rapids during April, in order to meet the required flow at Bonneville during the first half of April. We then tried to meet 110 Kcfs at Priest Rapids without drafting Grand Coulee during the second half of April. As you look at this model run, bear in mind that they do not represent a recommended or even an expected operation, she said – it simply reflects the inputs the salmon managers have given us.

Are you looking for input on this today? Silverberg asked. We're always looking for input, Henriksen replied. This shows an average flow of 120 Kcfs at Priest Rapids in May and 113 Kcfs in June, noted Jim Litchfield – if we have a 45-foot hole to fill in Grand Coulee by June 30, those flows don't strike me as realistic. Henriksen replied that this model run assumes a significant amount of flow from the Canadian projects during that period – we have stored 1 MAF for flow augmentation in the Canadian projects, and a portion of that will come out in May and June, she said.

Julie Ammann said any guidance the salmon managers can provide on the optimal shaping of Priest Rapids flows during April, May and June would be helpful, as would input on the elevation to which the salmon managers would like to see Grand Coulee drafted and, ultimately, refilled. The salmon managers will be discussing this information

over the next week, said Boyce. Henriksen added that the Corps is working on an additional product for TMT digestion, an ESP model run that will overlay 44 historic weather years on current streamflow and reservoir elevation data.

After a brief caucus break, Wills said the salmon managers had discussed this issue, and taking all factors into account, in looking at the QADJ run, it looks like this is going in the right direction, in terms of doing most of what we wanted to do. We may want to explore changing the Priest Rapids flows during late April and early May, but it does look as though this operation is taking us in the right direction. We will continue to discuss this issue with the action agencies once the most recent QADJ run is available, Wills said, in particular, the possibility of shifting some of the April flows at Priest Rapids into May. Tony Norris noted that the options to do so may be limited, given the drum gate repair operation at Grand Coulee and the need to refill that project once the freshet begins.

With respect to spill at Bonneville, Wills said that, when the time comes, the salmon managers will be interested in exploring to what extent it will be possible to provide spill while protecting chum. My question is, what's the first priority – spill or protecting chum? Henriksen asked. That's the question, Wagner agreed – we're just going to have to continue to monitor emergence timing, flows and TDG levels. The TMT will discuss that issue at its April 6 meeting, he added. There is certainly a desire to ensure that May flows are as adequate as possible, rather than allowing them to drop drastically, as we did in 2001. Boyce added that, in his view, this discussion should not be limited merely to tradeoffs between one ESU vs. another – it needs to include tradeoffs between all river uses, not just between fish species. Correct, said Litchfield, but the point being made here is that we are working with a finite resource and the goal is to use it wisely through the season.

4. Spring Creek Update.

Wills said the question from the last TMT meeting was to what degree we were successful in passing the Spring Creek fish with the shortened corner collector operation in 2005. If we look at the overall subyearling numbers, it looks as though about 61% of the fish that were released passed Bonneville during the corner collector operation. What about TDG problems? Litchfield asked. That's why we shut down the operation sooner than planned, Wellschlager replied – river flows were low, temperatures were high, and we saw TDG levels of about 107% at the Multnomah Creek spawning site. We were well-protected at the Ives Island site, added Wills, but we just couldn't get the depth compensation we needed at Multnomah Creek. Larry Beck noted that forebay TDG levels at Bonneville, due to upcoming spill at The Dalles, will need to be taken into account in the coming decision about Bonneville spill.

5. Water Management Plan Spring/Summer Update.

Henriksen noted that a decision on this issue needs to be made today, because under the Water Management Plan, the Lower Snake projects need to be at MOP or

MOP+1 on April 3, this Sunday. One thing to consider this year is that, at Ice Harbor, starting April 4, testing of the new RSW will begin. We decided not to do the balloon-tag test during our TMT discussions last week, but Walla Walla District still needs to test the RSW during the day. The researchers would like to have Ice Harbor at its normal operating range – MOP+1 to MOP+2 – during the entire test period.

The question is, do we want to draft all of the pools to MOP or MOP+1 at the same time, on April 3, or do we want to sequence them? Litchfield said. We also have a planning date for spill, noted Larry Beck. Wills agreed that a consistent condition is needed for the Ice Harbor test; that pool is already near MOP, and we would recommend that we get to MOP at Ice Harbor first. After a brief discussion, it was recommended that the pools be drafted in sequence, starting upstream and moving downstream. Ice Harbor and Lower Granite will be drafted to MOP+1 to MOP+2 on April 4; Little Goose to MOP+1 to MOP+2 on April 5, and Lower Monumental to MOP to MOP+1 on April 6. It was further agreed that the drafts of Lower Granite, Little Goose and Lower Monumental will take place during evening hours.

Rudd Turner asked whether the salmon managers would prefer to delay the drafts of the Lower Snake pools until fish begin arriving at Lower Granite in appreciable numbers. After a brief discussion, no changes were made to the above timing, although if the Lower Granite passage indices remain low, the salmon managers will contact the Corps on April 1 to discuss delaying the draft of the Lower Snake pools.

The group also briefly reviewed the March 30 draft of the spring/summer update (attached to today's agenda on the TMT homepage); Henriksen noted that the Corps is waiting to update this document further until the April final water supply forecast is available. Henriksen asked that the TMT provide any comments they may have on the spring/summer update as soon as possible.

6. Upper Snake Operations.

Norris said the current prediction of flow augmentation water from the Upper Snake in 2005 is 144 kaf. They are receiving some precipitation, currently, so these numbers will likely change again, he said, but that's the most recent estimate. The bottom line is that conditions are not good up there this year, he said; 144 kaf is near our all-time low of 90 kaf in 2001.

7. The Dalles Operations.

Laurie Ebner said the construction contract for installing the dogging devices at The Dalles will be let tomorrow; the work is scheduled for completion by April 10. We will provide an update on April 7. We need 48 hours notice on changing the pennant length. This is a heads-up for all of you that we will need to exercise at least one of the gates once the dogging devices are installed, for five to 10 minutes, she said. There is a model study scheduled for next week to identify operational flexibility in Bays 1 and 2 with a fixed gate opening. We cannot have the gates at Bays 1 or 2 open less than 2 feet.

We need to keep the two-foot part of the wire inside the drum. We will have to have refined operations as soon as possible; we will try to look on the April-May flow conditions while they're down there on the model. We will need a quick turnaround from FPOM on the recommended spill patterns. When will that information get to FPOM? Boyce asked. We hope to get information on the six-foot pennant length to FPOM by next Friday; the information on the four- and eight-foot pennant length to FPOM soon thereafter, Ebner replied. Again, you'll get a scheduling update on April 7, Ebner said.

How much operational flexibility will we have if the gates are fixed at a six- or eight-foot opening? Boyce asked. Until we get the information from WES, I can't answer that, Ebner replied – the only flexibility will be in Bays 1 and 2. I would hope that the salmon managers will be consulted regarding which level is selected – six vs. eight feet, said Boyce. We will be monitoring what spill percentage we get, Ebner replied; we will show you how we propose to do that. In addition, with respect to what we propose to do once we understand how we'll operate Bays 1 and 2, we will have information on how much spill is provided, which we will share with the region. That will allow all parties to make a decision, she said. The message today is that we will start the season with six-foot openings in Bays 3-6, and the question for FPOM is, how should we operate Bays 1 and 2 to meet the 40% spill requirement? said Henriksen. The other discussion is, once flows increase due to the freshet, when should we change the openings at Bays 3-6 to eight feet? The contractor will need 48 hours notice before making that change, so we need to decide on the criteria that will guide when that change is made, Henriksen observed.

Wellschlager noted that taking 40% of total river flow as the floor would cause operational concerns for Bonneville – 55 Kcfs needs to go through the powerhouse at night, and about 70 Kcfs during the day, to maintain grid stability. After a few minutes of further discussion, it was agreed that, unless the TMT decides otherwise, the gates will be dogged off at six feet on April 10.

8. Feedback on Graphs/Graphics.

Wills said the salmon managers will provide their input on the Corps' ESP analysis prior to next week's TMT meeting.

9. CRITFC River Operations Plan.

Kyle Martin distributed copies of the 2005 CRITFC River Operations Plan (available via hot-link from today's agenda on the TMT homepage). He noted that, for the past several years, the tribes have submitted a plan outlining their preferred river operations. He noted that the plan goals include establishing a normative hydrograph, reducing water particle and fish travel time, and establishing normative passage conditions at the dams. Moving on, Martin touched on the following major topics:

- The 2005 water supply forecast
- 2001 juvenile salmon in-river system survival rates v. 2000 BiOp targets – we must do better in 2005
- Key plan recommendations – use CBFWA for river operations planning and

decision-making process, BPA appears to be financially solvent, modify flood control rule curves; draw down Lower Granite pool by 10 feet during summer migration, delay refill of Lake Roosevelt until autumn, reduce power peaking flow fluctuations in the river and Hanford Reach etc.

- Flow augmentation over BiOp – 1 MAF in addition to BiOp recommendations from the Upper Snake, Canadian non-treaty storage, Libby, Hungry Horse, Banks Lake and Brownlee
- Provide 24-hour spill for spring and summer migrants at all dams; increase spill volumes and timing
- Flow improvements - spring flow targets for migration peak (graphs)
- Flow improvements – summer (graph)
- Upper Snake River storage (graph)
- Hanford Reach operations (graph)
- Spill operations – initiate spring spill on March 20 etc.

Did you model the impacts of ending 2005 at a lower elevation at the storage reservoirs on 2006 operations? Wellschlager asked. I have that information back at my office, but I don't have it with me today, Martin replied – that's a valid question.

Martin asked that the action agencies provide a written response to the CRITFC 2005 river operations plan within two weeks (by the April 13 TMT meeting). Again, he said, the overall goal of the plan is to make the best of a bad flow situation in 2005.

In order to provide good comments, we will need some additional spreadsheet information showing how CRITFC generated its flow estimates, Henriksen said. Martin suggested that it may make sense for the Corps to take CRITFC's assumptions and run them through its QADJ model, to provide an apples-to-apples comparison.

Do I correctly understand CRITFC to be recommending the dissolution of IT and TMT and replacing that with a government-to-government forum under CBFWA? Litchfield asked. That's correct, Martin replied – the tribes want an equal place at the table. Would that involve all of CBFWA's members? Litchfield asked. That's a detail that still needs to be worked out, but the overall goal is to improve a process that has never really worked for the tribes, Martin replied. That would require a restructuring of CBFWA, because there is currently no operational arm of CBFWA, Wagner observed. Would the tribes be represented by a single person, or would each tribe have a representative? Wellschlager asked. Again, that's a detail that remains to be resolved, Martin replied. Basically, we would like people to start to think about how this process could be improved, he said. In response to another question, Martin said the power impacts of CRITFC's proposal are summarized on Page 19 of the River Operations Plan.

Boyce said Oregon appreciates CRITFC's efforts to provide the best possible conditions for fish; the concepts you've put forward merit further discussion at the TMT table. There are a lot of positives here, Boyce said.

10. Status of Operations.

Henriksen said it has been raining at Libby this week; the reservoir has filled to elevation 2413, and continues to release 4 Kcfs. The March final water supply forecast for Libby was 5.37 MAF, and the expectation is that Libby will supply an 800 kaf sturgeon pulse in 2005. At Dworshak, the March final water supply forecast was 1.42 MAF; the project is now near elevation 1577, 23 feet from full. Inflows increased to 16 Kcfs on Monday; Dworshak continues to release its 1.6 Kcfs minimum outflow. Grand Coulee is at 1257.4 feet, said Norris; it will be at elevation 1255 by Friday. The contractor will begin work on the drum gates on Friday. Hungry Horse is currently at 3548.2 feet, and releasing the Columbia Falls minimum.

Wills said Dworshak Hatchery is planning to release its 2003-brood spring chinook on Monday and Wednesday evenings. In working with the Corps, the two evenings fish are released, Dworshak outflow will be increased to 4 Kcfs to help push the fish downstream.

Wellschlager said there are no power system issues to report at this time; the system is being operated to maintain the 11.5-foot minimum tailwater elevation below Bonneville.

11. Next TMT Meeting Date.

The next meeting of the Technical Management Team was set for Wednesday, April 6. Meeting summary prepared by Jeff Kuechle. (meeting went to 12:30)

**TMT Participant List
March 30, 2005**

Name	Affiliation
Ray Gonzales	COE
Ron Boyce	ODFW
Paul Wagner	NOAAF
Tony Norris	USBR
David Wills	USFWS
John Wellschlager	BPA
Donna Silverberg	Facilitator
Jim Litchfield	Montana
Larry Beck	COE
Laura Hamilton	COE

Russ George	WMCI
Tina Lundell	COE
Rudd Turner	COE
Tom Haymaker	PNGC
Tim Heizenrater	PPM
Nic Lane	BPA
Robin Harkless	Facilitation Team
Kevin Nordt	Mid-Cs
Kyle Martin	CRITFC
Lee Corum	PNUCC
Russell Langshaw	Douglas PUD
Todd Cook	PPM
Dan Spear	BPA
Ruth Burris	PGE
Cindy LeFleur	WDFW
Bruce MacKay	Consultant
Dave Statler	NPT
David Benner	FPC
Margaret Filardo	FPC