

# **COLUMBIA RIVER REGIONAL FORUM**

## **IMPLEMENTATION TEAM/TECHNICAL MANAGEMENT TEAM MEETING NOTES**

**March 14, 2001, 10:00 a.m. - 4:00 p.m.**

**CORPS OF ENGINEERS NORTHWESTERN DIVISION OFFICES – CUSTOM HOUSE  
PORTLAND, OREGON**

**TMT Internet Homepage:** <http://www.nwd-wc.usace.army.mil/TMT/index.html>

### ***I. Greetings, Introductions and Review of the Agenda.***

The March 14, 2001 joint meeting of the Technical Management Team (TMT) and the Implementation Team (IT), held at the Corps of Engineers' Northwest Division headquarters in Portland, Oregon, was chaired by Rudd Turner of the Corps and facilitated by Donna Silverberg. The agenda for the March 14 meeting and a list of attendees are attached as Enclosures A and B. Please note that this is a summary, not a verbatim transcript, of items discussed and decisions made at today's meeting; copies of any enclosures referenced can be obtained by calling Kathy Ceballos at 503/230-5420.

### ***2. Continued Discussion of 2001 In-Season Operations and Priorities.***

Turner began with a brief overview of the key work products that need to come out of today's meeting. He reviewed the history of the TMT, stating that it was created as part of RPA # 1 in the 1995 NMFS Biological Opinion (BiOp) on operation of the FCRPS. The Regional Forum, including TMT and the IT, developed to implement the BiOp by discussing salmon recovery measures and providing a forum to resolve disputes among regional entities. Turner noted that, in their quest to implement the BiOp, the IT and TMT have been meeting jointly over the past several weeks because of the unusually low 2001 water supply forecast. What we want to try to do today is determine how best to implement the BiOp this year and protect fish. The conditions under which we are working include the current water supply situation, which, as everyone here has learned, is bad. Basin water supply is not showing signs of improving at this time and could continue to deteriorate, Turner said. You've also been given detailed information by BPA about the power supply situation, and the threat that this very low water year, coupled with the West coast power system situation, poses to BPA's financial solvency.

There is little point in spending further time discussing those realities at today's meeting, said Turner; this group simply needs to assume that those are the conditions we have to deal with this year, and to develop a plan for how whatever operational flexibility we have can best be used to benefit fish this spring and summer. IT and TMT members need to work toward the development of the 2001 Water Management Plan, and in general, focus on how best to protect fish in this extremely challenging water year.

Jim Ruff said Turner is correct in his assessment of the water supply and power

situations; he reminded the group that the Federal Executives have released the Federal Principals document, and have asked IT and TMT to work together to refine some operating priorities for this year. They're waiting to see what we come up with, he said; in the meantime, the Executives will be meeting with the other regional sovereigns – state and tribal – on Friday at the Portland airport. I assure you that they will be discussing operating priorities, said Ruff; our task today is to continue to fill out the draft “Matrix of 2001 FCRPS Operating Priorities” by adding in the Oregon and Washington proposals, and then see if we can come to agreement on at least some broad operational priorities for the 2001 in-season management period.

Jim Litchfield asked about the links between this effort and the development of the annual implementation plan called for in the BiOp. We will see a draft of that plan by early April, Ruff replied; it will be discussed through the spring and summer in IT, TMT and SCT, then finalized in September. The conversations we have today, as well as at Friday's meeting of the Federal Executives and regional sovereigns, will be reflected in the annual implementation plan, added Dan Daley. Turner reminded the group that the TMT also needs to finalize the 2001 Water Management Plan by mid-April, after the April final water supply forecast is available.

Isn't it true that we will be operating the system for power needs this year, given the fact that we're now on pace for a 1977-type water year? Ron Boyce asked. Given that fact, we will have little or no flexibility to do anything for fish this spring and summer, he said. That's a good point, Ruff replied, but there is no way to know what the weather is going to do between now and August, and we need to lay out operating priorities for whatever flexibility we may have so that we can provide the maximum biological benefit for the largest number of fish. Still, I think we shouldn't fool ourselves, said Boyce -- we are unlikely to have any significant flexibility to operate the system to benefit fish this year.

Litchfield urged the group not to write off this year, from a biological standpoint – even in an extremely poor water year, there may be small things we can do to tweak the system, without incurring huge power costs, to benefit fish, he said.

Boyce and Howard Schaller made the point that it is fairly useless to discuss optimal fish operations in the absence of information about how the system will be operated for power generation this summer – that's the real driver, Schaller said. Dan Daley disagreed, saying the task before this group is to develop recommendations about how best to operate the system to benefit fish this spring and summer, without respect to what the power operation will be. We can't predict at this time what market and load conditions are going to be this summer, Daley said – what we do know is that we're in a very poor water year, and if we can agree on priorities with that in mind, that will be very useful information for the Regional Executives. Many of the operational decisions will be made this year by the Federal Executives, he said, but they really are seeking the input of this group, as well as the state and tribal sovereigns, in making those decisions.

Schaller reiterated that he needs more information about planned power operations before he can discuss the fish operation this spring and summer. Litchfield observed that his understanding of the recent BPA presentations is that there is a 50% probability that BPA will

have zero cash reserves by November even with zero spill and a 260% rate increase, unless the water supply forecast improves. It is possible, however, that we will get some precipitation between now and June, and we will have at least some water to use to benefit fish this year, he said – if we can't agree on some priorities for how that water will be used, then it will more than likely be wasted.

If you simply want us to make these decisions without your input, we can do so, and cancel today's meeting, Daley said. It is true that Bonneville will do everything it can to meet load and avoid browning out the region, he added; if Oregon wants to tell the federal Executives on Friday that they want us to brown out the region for fish, they can do so. That is not Oregon's recommendation, Boyce replied.

My understanding of BPA's presentation is that, if the water supply forecast stays about where it is right now – 58 MAF – then there are limited things we can do for fish, said Jim Nielsen. This being the case, he said, we need to develop some recommendations. Nielsen added that the recommendations that are being made by the states and tribes apply only to this unique water year.

Still, said Boyce, it would be useful to have further discussion of BPA's power production needs this spring and summer as better information becomes available. I agree, Ruff replied – my earlier point was simply that that information is not available today, so it would be more efficient to simply assume that we will have very limited flexibility to operate the system for fish this year. That's correct, said Turner – it wasn't my intent to take the topic of power operations off the table forever – my intent was to set the stage for today's meeting, to be responsive to the Federal Executives' needs.

Nielsen then distributed the State of Washington's draft operating plan for the mainstem Snake and Columbia Rivers, dated March 12. He spent a few minutes going through this document, noting that part of the plan, covering water conservation measures, is missing because it is still under discussion within the Governor's office. Nielsen's handout included a background statement, as well as a schedule of recommended hydrosystem operation actions:

- **Winter Season** (Now Through the End of March): Begin storing water in storage projects beyond that needed to support base power operation. Implement conservation measures to reduce power needs.
- **Bonneville Flows**: Provide up to 60 Kcfs spill for a few days in March to move 5.2 million Spring Creek Hatchery fall chinook downstream, as these are the "backbone" of the Washington ocean fisheries. As long as the power system is drafting to support 130 Kcfs daily average at Bonneville Dam continue the current program to manage for listed chum salmon. Once power need is reduced, begin dropping tailwater requirement proportionately. Attempt to provide protection for at least a portion of the chum to emergence. When no longer practical to continue, reduce flows and use reverse load factoring at night to allow for storage in headwater projects and Grand Coulee, and provide some relief to the chum below Bonneville without increasing base power flow.
- **Hanford Reach/Vernita Bar**: continue with the 65 Kcfs instantaneous discharge at

Priest Rapids through completion of emergence, or at least through mid-May. Implement the Hanford Reach Stranding Agreement operations to minimize stranding. The Vernita Bar Settlement Agreement has a section on “Adverse Water Conditions” which stipulates that *“When the National Weather Service/Soil Conservation Service joint official March 1 January-July volume of runoff forecast at Grand Coulee is less than the Critical Runoff Volume (55.6 or 56 MAF) the parties will meet prior to any reductions and discuss allocation of available flows between power interests, fishery interests at Vernita Bar and other non-power interests. In no event shall the effect of this paragraph result in a reduction of the Protection Level Flow of greater than 15% or below 50 Kcfs, whichever provides for a higher Protection Level Flow.”*

- **Spring Season** (April through June): Conserve water to improve refill probabilities through maximized juvenile fish transportation and resultant decreases in flow as the result of a reduced spill program.
- **Spill:** Eliminate spill at the Snake River juvenile fish collector projects (Lower Granite, Little Goose, Lower Monumental). Implement spill at Ice Harbor as necessary to pass Lyons Ferry releases, as balanced against CWA compliance and power needs. Implement as close to BiOp spill levels as possible at non-collector projects, within BPA’s financial and power constraints. In the Lower Columbia, there is no other measure that can be implemented to aid juvenile migrants, so providing the maximum spill up to the BiOp levels is essential. Implement full FERC-authorized spill programs at all Mid-Columbia PUD projects. These spill programs are the only mechanism available to decrease juvenile passage mortality at these dams.
- **Transportation:** With the elimination of spill at the Snake River collector projects, maximize juvenile fish transportation from the Snake. Implement spring transportation from McNary Dam no earlier than June 1 or when “springlike” conditions of temperature and flow no longer exist. Until transportation is initiated at McNary, it should spill as close to BiOp levels as possible. Eliminate the use of trucks during the early part of the season.
- **Balancing Refill and Flow:** Because of extremely low storage reservoirs going into the spring, to attempt to refill completely by June 30, as directed by the BiOp, would require that spring flows be drastically reduced until runoff begins to peak in May (and it may not be possible at some projects, even then). We recommend targeting partial refill of storage reservoirs by June 30 and sharing some of the runoff with spring migrants. We recommend targeting refill of 75% of the storage volume at the various federal projects identified in the BiOp for flows, understanding that this may still result in very low flows during the spring. As an example, the BiOp calls for refill of Grand Coulee to 1290' elevation by June 30 and drafting to 1278' by August 31. Our recommendation would be to have Grand Coulee refill to no more than 1287' by June 30 and draft to 1278' by August 31. This could provide a limited amount of water for spring flows, but still cause most of the augmentation volume to be available in the summer. We further understand that some projects may not be able to refill even to this reduced elevation because of other operational constraints.
- **Hanford Reach:** Implement the Hanford Reach Stranding Agreement measures through the end of the stranding vulnerability period (approximately early June).
- **Adult Fish Passage Facilities:** Operate all adult facilities within criteria.

## **Summer Season (July and August)**

- **Spill**: Implement spill as close to BiOp levels as BPA's financial and power situation permits at non-collector projects in the Columbia (John Day, The Dalles and Bonneville) and at Ice Harbor Dam in the Snake River. As with the spring, spill at the non-collector projects is the main action available to facilitate fish passage during the summer. Implement full FERC-authorized spill programs at all Mid-Columbia PUD projects. These spill programs are the only mechanism available to improve juvenile passage survival at these dams.
- **Transportation**: Maximum juvenile fish transportation at all collector projects during the summer. Extend the use of barges as long as possible to minimize the use of trucks.
- **Flow for Fish Passage**: Utilize all water available from all BiOp sources by August 31, down to the minimum elevations identified in the BiOp. Releases should be managed in-season. It may be that flows will be so low that attempting to meet BiOp targets even for a short period is impractical.
- **Snake River Temperature Modification**: Begin drafting Dworshak in late June or early July when water temperatures at Lower Granite approach 68 degrees F. Draft at the maximum rate allowable within the Idaho/Nez Perce water quality limits for total dissolved gas until elevation 1520' is reached. This provides temperature compliance with CWA as well as benefits for fall chinook juvenile outmigrants. Available information also shows that this strategy has the greatest benefit for fall chinook and steelhead adults in terms of conversion rates from Ice Harbor to Lower Granite Dam.
- **Adult Fish Passage facilities**: Operate all adult facilities within criteria.
- **Fishery Management**: Implement sport fishery closures of cold-water refugia and/or holding areas (e.g., Drano Lake and Deschutes River mouth) in the mainstem and tributaries if temperatures begin to exceed risk levels.

Rob Walton asked whether Washington has done a cost/benefit analysis on the spill program, in light of Brice Suzumoto's recent presentation to the Council, No, Nielsen replied. Also, said Walton, why does Washington place a lower priority on protection measures for adult migrants? Because to a limited extent, adult migrants can avoid higher temperatures by seeking cold-water refugia – at least, to a greater extent than juvenile migrants, Nielsen replied.

Litchfield said he sees some inconsistency in Washington's advocacy of both conserving water for use later in the summer and their advocacy of spill for the non-listed Spring Creek Hatchery fish. Nielsen replied that there is no real inconsistency; the operation Washington recommended for the Spring Creek Hatchery fish is greatly reduced from what it would have recommended in a normal or near-normal water year.

In response to a question from Nielsen, Jim Athearn said the Corps is investigating ways to improve efficiency in the locking operations at the mainstem dams. He said he will provide an update on this topic as further information becomes available.

Nielsen noted that Washington's overall top priority for protection is juveniles of stocks

listed as endangered under the Endangered Species Act. Within this top priority, first priority is Upper Columbia spring chinook and steelhead as well as Snake River sockeye; the second priority is threatened stocks from the Snake River; the next priority is the listed Lower Columbia stocks, based on the distance these fish have to travel through the hydrosystem.

The second overall priority is unlisted juvenile migrants; the next is adult salmon and steelhead migrants, both listed and unlisted; the next is bull trout in the mainstem, and the last priority, from Washington's perspective, is resident fish production in the mainstem reservoirs.

Various other meeting participants asked clarifying questions about the Washington proposal, to which Nielsen responded. Does Washington have a position on Upper Snake and Brownlee operations? Bob Heinith asked. We do, Nielsen replied – we recommend using all of the available Upper Snake volumes; in addition, there are going to be some shaping requirements included in Idaho Power's FERC relicensing agreement, and we would recommend that those shaping requirements be implemented. We wouldn't rule out the possibility of releasing a portion of the 427 KAF in the late spring period, Nielsen added.

The conversation then turned to the Oregon proposal. Boyce noted that Gov. Kitzhaber has not yet finalized the plan; however, it is my understanding that Eric Bloch will be making some statements at Friday's meeting, Boyce said, though they will not be as detailed as the plans on the table in this forum. In response to a question, Boyce said state officials are meeting this morning to hash out the final details of the Oregon proposal; he agreed to attempt to find out what, if anything, has been resolved and to report back after lunch.

Heinith observed that the highest priority for the CRITFC tribes is maintaining pool elevations within 1.5 feet of full, and the avoidance of power peaking during the tribal treaty fishery. He said specific operational requests will be submitted to the Corps and Bonneville by next week for Bonneville, The Dalles and John Day pools. The Zone 6 fishery is expected to last from April to May; the request will be in force 24 hour per day during the fishery.

Kyle Martin then reviewed the CRITFC analysis, "Comparison of BPA and CRITFC 2001 Seasonal River Operation Proposals" dated March 14. He noted that this analysis factors in the RFC's March final water supply forecast. He said CRITFC is projecting a 2001 runoff volume of 51 MAF; for that reason, the CRITFC plan features data from the 52.7 MAF 1973 water year, the closest to the projected volume in 2001.

Martin noted that the BPA plan drops Grand Coulee outflow to 40 Kcfs during the peak of the salmon outmigration in mid- to late May. The CRITFC plan proposes Grand Coulee outflows of 75 Kcfs-90 Kcfs during April and 100 Kcfs-130 Kcfs during May. He noted that CRITFC is also concerned with BPA's proposed Dworshak operational alternatives; CRITFC believes that the premature release of cold water in July will likely retard the development of Snake River and Clearwater River stocks. He added that the BPA plans give no consideration to adult flow needs in September. The CRITFC plan provides more flow for greater summer temperature reduction in the Lower Snake, into September, which is desirable from a CWA standpoint.

Martin added that CRITFC has asked EPA to run its proposed operating scenario through the Yearsley temperature model. He noted that it is apparent, from CRITFC's perspective, that the BPA plan emphasizes power at the expense of listed and non-listed salmon stocks. The CRITFC plan, on the other hand, strongly emphasizes a peaking hydrograph regime using the limited seasonal volume of water through September.

Nielsen asked how CRITFC can justify their recommendation that Grand Coulee be drafted to elevation 1263' by the end of September. Martin replied that CRITFC is hoping that next winter will be warm and dry, providing some relief on the power side of the equation, rather than cold and dry, as it was this year. Heinith added that there will be large numbers of juvenile and adult migrants moving through the system this spring and summer; those fish need to be protected, he said. Bettin observed that this is a major contradiction in the CRITFC plan. I guess we don't feel that way, Heinith replied.

Basically you're gambling on a good water year next year, said Daley. Actually, we're simply advocating making the best use of the water we have available this year for fish, Martin replied – it is too early for anyone to say what's going to happen next winter. Are you suggesting specific fish facility operations by project? Daley asked. Yes – they're attached to the CRITFC plan, Heinith replied. Turner said the Corps is in the process of finalizing its response to CRITFC's recommendations – the Corps will increase fishway inspection frequency this year, for example, he said, and I think you'll find that, in general, we agree with some of your recommendations and disagree on others.

You suggest turning off both spring and summer transport, said Daley; at the same time, what we would be doing is draining the storage reservoirs to try to meet flow targets and Clean Water Act standards we're not going to be able to meet. In other words, he said, you advocate leaving the fish in the river even though in-river conditions are likely to be very poor. If there is no spill, however, CRITFC would advocate barging the fish in both spring and summer, said Heinith. In response to another question from Daley, Heinith said CRITFC would like to explore the possibility of pulling screens at the mainstem projects during the passage season.

The group devoted a few additional minutes of discussion to the nuances of and assumptions underlying the CRITFC plan. What if BPA doesn't get a 260% rate increase or the federal government doesn't step in with a large pot of money to help us out – would CRITFC still advocate the implementation of this plan? Daley asked. The best answer I can give you is that CRITFC believes the federal government has a treaty trust responsibility, and this plan is the best way for you to meet that responsibility, Heinith replied.

The risk you would run under the CRITFC plan is that the storage system will be dry in the fall, before you even know whether or not the snowpack news is going to be good or bad for the following year, Litchfield observed.

So there you have it, said Silverberg. The next task is to look at the matrix to identify key areas of agreement and disagreement among the various plans on the table. In response to a question, Rock Peters said decisions about the specifics of this year's RM&E efforts need to be

made very soon, for contracting reasons. There will likely be a special SRWG meeting next week to address that issue, he said. The group devoted a few minutes of discussion to this issue, in particular, the possible use of radio tags to evaluate the behavior of fish approaching Lower Granite Dam under this year's extremely low-flow conditions. Peters noted that the lack of flow and spill this year is going to severely limit the number and type of studies it will be possible to do. Ruff noted that NMFS' priority would be to run Bonneville Powerhouse II over Powerhouse I, because passage facilities and survival are better at Powerhouse II.

Turner noted that the Corps is concerned about Libby refill; based on the March final water supply forecast, there is now less than a 50% probability that Libby will refill even to elevation 2439, 20 feet from full. He suggested that the target for Libby's June 30 refill elevation be changed to 2439 feet, rather than the 2443 shown in the "Federal Principals" proposal. This will increase the probability that TMT will have some flexibility to recommend flows over minimum discharge prior to 30 June. He added that the Corps is reasonably confident that it will be possible to provide the 6 Kcfs bull trout flow from Libby during July and August, even at this reduced refill level.

The group then spent a few minutes reviewing the revised "Matrix of 2001 FCRPS Operating Priorities," dated March 14. To get a sense of the group's priorities for the operations listed on this matrix, Silverberg went to the whiteboard and, after a few minutes of discussion, wrote the following:

- Chum/Power Flows
- Spring Spill
- June 30 Refill Priorities/Minimums
- Spring Flows
- Vernita Bar
- Spring Transport
- Summer Spill
- Summer Flows
- Summer Transport
- Fish Facilities
- RM&E
- Temperature and TDG

She then asked the various entities represented at the table today (the federal action agencies, the federal fish agencies, CRITFC, Oregon, Washington, Montana and Idaho) to choose four operational priorities from this list. This exercise had the following results:

- Spring Spill – 2 votes
- Spring Flows – 1 vote
- Vernita Bar – zero votes
- Spring Transport – four votes
- Summer Spill – one vote
- Summer Flows – five votes

- Summer Transport – three votes

For the record, it should be noted that CRITFC, State of Oregon and Idaho Dept. of Fish and Game representatives abstained from this exercise. Nielsen noted that there is no need to assign priorities to the fish facilities, RM&E and temperature/TDG categories; there is agreement among all parties that those should be implemented to the greatest extent possible, he said. There was general agreement that this is the case.

Litchfield said that what this prioritized list suggests, to him, is that, at least in this initial exercise, there is reasonably strong support for spring transportation, actions that will increase summer flows and for summer transportation. Spring and summer spill, on the other hand, enjoy a lesser degree of support. Schaller reiterated that both Oregon and CRITFC, strong supporters of both spring and summer spill, elected not to participate in this exercise.

It sounds as though we've gone as far as we can on this exercise today, Silverberg said; this gives us at least a preliminary indication of where people are coming from. Rob Walton observed that there is another level of detail that needs to be gotten to here; it is too simplistic to say, at this point, that a given agency absolutely does or does not support spill, at any level, at any project. Schaller observed that it would be terribly misleading, at this point, to present this list to the Regional Executives on Friday. What would be more informative, to the Executives, would be to provide them with a completed matrix, which more accurately reflects the recommendations of the individual IT/TMT members. If Oregon can provide their proposal prior to that meeting, said Schaller, that would be the most useful thing to give to the Executives.

Is there support for the idea of filling out this matrix and presenting it to the Executives on Friday? Silverberg asked. No objections were heard, although Litchfield said that, in his view, it would also be useful to present the above-prioritized list to the Executives. Not necessarily this list, said Schaller, but a list that accurately reflects the top four priorities for each of the participating entities. After a few minutes of discussion, there was no clear agreement about whether or not to provide the prioritized list of actions, as currently structured, to the Executives on Friday.

If we can get Oregon's input, as well as any other necessary changes, provided to Jim Ruff by 3 p.m. tomorrow, then we will present the matrix to the Executives on Friday, said Silverberg. Christine Mallette said she doubts whether it will be possible to furnish a final Oregon plan by tomorrow afternoon.

Walton suggested that it might be useful if a row was added to the matrix for entities to list their priorities by species as Washington has done. It was agreed that this might be helpful.

### ***3. Discussion of Short-Term Operations.***

Turner said the objective of the current system operation is to maintain an 11.3-foot tailwater elevation at Bonneville, 24 hours a day, as per the agreement at Monday's TMT conference call. Day-average flows at Bonneville are currently in the 118 Kcfs-120 Kcfs range.

Dworshak elevation is now 1503.2, and filling slightly. At Libby, current elevation is 2389.2 feet,; the project has been releasing minimum outflow since last Wednesday, with inflow in the 2 Kcfs-3 Kcfs range.

Grand Coulee is now at elevation 1221.6 feet, getting close to the 1221-foot trigger point TMT discussed on Monday, Turner said. The project is releasing 89 Kcfs; with current inflows in the 69 Kcfs range, Grand Coulee is drafting between seven-tenths and eight-tenths of a foot per day. That only gives us another day or two before we hit the wall, and Grand Coulee outflows will have to drop by 20 Kcfs, Litchfield observed.

Hungry Horse is at elevation 3495, releasing 2.7 Kcfs to meet the Columbia Falls minimum, with inflows of 300-400 cfs, said John Roache of Reclamation. Turner added that the March mid-month forecast will be available later this week.

What is the current status of chum emergence? Ruff asked. Mallette said Monday's field survey found a total of 96 chum; on Tuesday, field personnel captured 29 chum, under very poor seining conditions. There were fish all over the place, said Schaller, but they had to stop seining after 10-15 minutes and three survey areas due to extremely high winds. The main thing to be aware of, said Schaller, is that the chum are still emerging.

Ruff said that NMFS recognizes that water supply conditions have been very poor since last fall, and that much of the habitat these fish generally use in the tributaries was unavailable to them this year. We have taken extraordinary measures, cooperatively, to protect these fish since they're spawned, he said – in particular, going, for the first time, to an operational strategy based on a tailwater elevation at Bonneville. We're now down to a tailwater elevation of 11.3 feet, protecting as many fish as possible while still conserving some water, said Ruff.

NMFS has said all along that its objective this year was to protect the majority of the chum through emergence; our estimate now is that, by the end of the week, between 55% and 60% of the chum will have emerged, Ruff continued. For that reason, said Ruff, NMFS recommends that the chum protection operation end this Friday; this will allow the region to begin storing upwards of 40 KAF per day, and begin refill operations for the other listed species later this summer and spring. This is not an easy decision for us, said Ruff, but it is our recommendation that, on Friday morning, the action agencies go to an operation designed to meet load and the Vernita Bar minimum flow.

Nielsen said that, distasteful though this decision is, NMFS' recommendation is consistent with the language in Washington's operational proposal. He asked whether it would be possible to reverse load-factor at night for the remainder of this month, temporarily raising the Bonneville tailwater elevation to help the fish that are still emerging to reach the river. BPA can attempt to do that, Bettin replied, but I can't promise that we can do it every night – it may conflict with CRITFC's request for stable pools during the fishing season. Actually, the fishing season won't begin until April, so that shouldn't be a conflict, Ruff said. The effects of nighttime load factoring on the storage and refill operation are also a concern, said Bettin; again, we'll see what we can do. Ruff added that the first few days will be most critical, in terms of the reverse

load-factoring operation.

After a few minutes of discussion, it was agreed to end the chum protection operation, and reduce Grand Coulee outflow, beginning at 7 a.m. Friday. Mallette noted, for the record, that while Oregon does not support this decision, they do not oppose it strongly enough to elevate it to IT. I suspect this is only the first of many distasteful decisions this group will face this year, Nielsen observed.

Ruff added that this operation will continue at least through next Wednesday's TMT meeting.

#### ***4. Next TMT Meeting Date.***

The next meeting of the Technical Management Team was set for Wednesday, March 21 from 1 p.m. to 4 p.m. It was agreed that this will be a TMT meeting only. The IT will revert to its monthly meeting schedule, with the next meeting to be held the first Thursday in April. Meeting notes prepared by Jeff Kuechle, BPA contractor.

### **TMT PARTICIPANT LIST**

**MARCH 14, 2001**

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