System Configuration Team (SCT)
Reasonable & Prudent Measure #26
Meeting Notes
April 21, 1997

Greetings and Introductions.

The April 21 meeting of the System Configuration Team was held at the Northwest Power Planning Council's offices in Portland, Oregon. The meeting was co-chaired by Jim Ruff of the Northwest Power Planning Council staff and Bill Hevlin of NMFS. The agenda and a list of attendees for the April 21 meeting are attached as Enclosures A and B.

The following is a distillation (not a verbatim transcript) of items discussed at the meeting, together with actions taken on those items. Please note that some enclosures referenced may be too lengthy to routinely include with the meeting notes; copies of all enclosures referred to in the minutes are available upon request from Kathy Ceballos of NMFS at 503/230-5420.

Briefing on Future Fish and Wildlife Funding Under Electric Utility Deregulation.

As most of you are aware, said Ed Sheets, there have been some fairly major changes in the utilities market recently. I would like to spend a few minutes today talking about how those market changes will affect our enterprise. In 1992, Sheets began, Congress passed a new act that basically deregulated the wholesale energy market. Before that act, utilities would either generate their own power, or would buy it under longterm power contracts. In 1992, Congress opened up the wholesale market, which meant that utilities were purchasing from BPA as well as utilities in California and British Columbia -- in other words, BPA now has a lot of other competition from other wholesale energy providers.

At the same time, said Sheets, BPA, for the last 60 years, has had longterm contracts with its customers, basically guaranteeing it a stream of revenue. Those contracts expire in 2001, which means BPA no longer has that guaranteed source of revenue. In response, BPA has reduced its costs, including fish and wildlife spending.

Sheets put up a series of charts, detailing BPA power generation costs for 1984-1996. The near-term problem is that, for many kinds of transactions, BPA is currently at or above the market cost, where utilities can purchase from independent power producers and other utilities, he said. In the near-term, BPA is really squeezed, and anything they do to raise their price puts them at an even greater competitive disadvantage.

BPA is assuming, in the long term, that the surplus in California will be used up, said Sheets. There is currently a huge capacity surplus on the West Coast -- 30,000 aMW, enough to power 30 cities the size of Seattle. Any time you have a surplus, obviously, it drives prices down. As the economy in California picks up, as some of the older and less-efficient thermal generating plants in California are retired, and, as BPA assumes, the price of natural gas increases, BPA

reasons that, if it can hold its rates constant, it will be very competitive in the energy marketplace. In fact, BPA is estimating that, eventually, they could be $2 billion per year cheaper than the alternative energy market, and represent a real long-term value. Their goal is to get to 20 mils by the year 2000.

One important caveat, said Sheets -- we don't know the future. While this may be a reasonable estimate of the longterm market, I know other analysts who think the longterm market on the West Coast is 16 mils. If that future is true, BPA will continue to be above that market. The other thing to bear in mind, said Sheets, is that BPA's 20 mil goal includes no increase in fish and wildlife funding after 2000.

This is BPA's view of the future, and it raises some important questions about the relationship between near-term problems and the fish and wildlife funding in the basin, said Sheets. Is the surplus capacity issue the reason for the drastic drop in possible funding? asked Brian Brown of NMFS. Yes -- surplus capacity, as well as the lower short-term prices for natural gas, Sheets replied. Clearly, the two together have driven the market lower than anyone forecast.

The bottom line is, this analysis assumes $435 million per year for fish and wildlife funding through 2018, said Sheets. It assumes continued reduced levels of conservation and renewables etc., and we're already hearing that that creates real problems for the administration. The other bottom line is, you can open up the Wall Street Journal, and at least in the near-term period, you can see that many non-firm surplus power deals are going down for less than what BPA can offer. The point isn't that the sky is falling -- BPA is in the market and competing, said Sheets. But it is a tight market right now. If we're going to make some room for fish and wildlife, we're probably going to look at some other alternatives, which we'll talk about later.

Moving on to key issues, Sheets said that one of those issues is fish and wildlife funding. As you'll see, he said, the current effort is going to exceed the fish cap. Additional measures will add significant costs. As many of you know, the region recently went through a process to develop a Multi-Year Implementation Plan; in the course of that exercise, we figured out what the federal/Council fish and wildlife programs meant in terms of the revenue repayment requirements needed to implement all of the measures contained in those two plans.

For the period of 1996 through 2007, the Memorandum of Agreement sets a $252 million average annual outlay, Sheets said. As most of you are aware, the Fish Cap includes that $252 million, plus the cost of hydro operations, whatever those may be. The $252 million includes the BPA direct-funded program, which is assumed at $100 million per year through 2007 -- there is no inflation factored into that figure. The direct program pays for habitat projects, research projects, funds paid to the fish agencies and tribes who actually implement many of the programs on the ground -- law enforcement, predator removal etc. The second component included under the $252 million cap is the reimbursable budget, which is money the Corps, USFWS and others spend to operate hatcheries, fish ladders, screens etc. At the end of the fiscal year, those agencies
send the bill to Bonneville, and BPA reimburses them for the fish and wildlife expenses they have incurred. The reimbursable budget, again, assumes no inflation, and is figured at $40 million per year through 2007. Bear in mind, said Sheets, that as we bring more facilities on line, O&M expenses will increase rapidly.

The third component included under the $252 million is capital repayment, reimbursements to the Treasury for money BPA borrows to build new facilities, Sheets said. Generally, the loan period is 50 years. This annual repayment cost is more or less a mortgage to pay for whatever fish and wildlife-related improvements the region decides are necessary. This line, too, is going to increase sharply as more capital expenditures are made and the amount of debt to be serviced increases. The MOA assumes an average of $112 million per year through 2007; for the time being, at least, we're a little below that level, Sheets explained. However, eventually, these capital repayment obligations are going to push the region's fish and wildlife costs above the $252 million average annual figure.

The good news is, it looks like we'll be fine through 2001 -- we won't exceed the fish cap, said Sheets. The bad news is, whether we're on the transportation path or the drawdown path, after 2001, we will be above the $252 million annual figure.

Moving on, Sheets spent a few minutes talking about some recent analytical work from the Public Power Council. This analysis covers the period of 1996-2001, and shows that, again, we should be fine on both the $252 million and the $435 million figures, at least through 2001, he said.

The next chart from the PPC shows the fish and wildlife budget under the transportation option, with the $435 million annual limit continuing through 2006, Sheets continued. What you see here is that, under this analysis, by 2006, we'll be looking at a real fish and wildlife budget squeeze if we continue to be bound by the fish cap. This is even more dramatically true under the drawdown scenario. Now, I don't agree with the assumptions the PPC used to run their operation, but they raise a valid point, Sheets said -- operational costs will be significantly higher under drawdown. If we try to hold to the $435 million, the direct program will essentially be eliminated. Of course, under the drawdown scenario, the need for a direct program may be much reduced, observed BPA's John Rowan.

The group spent a few minutes discussing the assumptions used to develop the PPC analysis, as well as some possible alternative ways to calculate both fish and wildlife costs and future BPA revenues under the drawdown scenario. The bottom line is, no matter how you calculate it, BPA needs to generate enough revenue to cover its costs, said Sheets. It's still an issue, and the direct program is going to be squeezed during the 2001-2006 period.

Moving on, Sheets said the Public Power Council had also run an analysis of the transportation and drawdown options with no $435 million fish cap in place. For the period of 2001-2006, the transportation analysis assumes a 3% annual increase in reimbursable costs as well as an annual increase in direct program costs; it shows an annual MOA average cost of $514 million under the transportation scenario. As most of you are aware, the current thinking is that transportation alone may not be enough to get us to recovery, and there may be other costs that have to be factored in on top of that $514 million annual figure, Sheets added.

The same analysis of the drawdown option, with no $435 million limit in place and the same annual increases in reimbursibles and direct funding, shows an average annual impact of $665 million. Obviously, that's $230 million more than we're spending today; if the markets were in a little better shape, that wouldn't necessarily be a big deal, Sheets said. However, the markets aren't in very good shape, and by the end of the 2001-2006 period, under the drawdown option,

we could be looking at annual costs of several hundred million dollars in excess of the current $435 million.

So if we're going to have additional costs, what are our alternatives for dealing with them? asked Sheets. First, we can further reduce BPA's costs, an effort that agency is actively pursuing. Second, we can increase BPA revenues through more efficient and innovative marketing strategies, or by modifying some of the subsidies BPA provides, primarily to irrigators. A third possibility has to do with stranded costs -- resources that are too expensive to be competitive in a deregulated energy marketplace. In California, the Public Utility Commission has already decided that, if California producers are to be competitive in the coming years, utilities have to shed some of their stranded costs. The California PUC made a policy decision that shareholders and ratepayers will absorb those stranded costs, to help California utilities make the transition to a deregulated marketplace. As a result, over the next five years, Californians will be paying what
is called a "Competitiveness Transmission Charge" or CTC of two to four cents per kilowatt-hour. Bearing in mind that BPA's wholesale rate is 2.4 cents per kilowatt-hour, said Sheets, that's a lot of money.

There are a variety of ways BPA could go about seeking reimbursement for its own stranded costs, Sheets continued. It could try to pass them on to its commercial, industrial and out-of-state
customers, although there is a limit to how much cost you can add to transmission before commercial and industrial customers begin to build their own transmission and/or generation facilities. Californians in particular will object to paying for additional stranded costs over and above their own CTC. BPA could also collect stranded costs through a distribution fee on all kilowatt-hours sold in the Northwest. Another possibility is an "exit fee," to be collected when public utilities that were part of WPPS want to leave -- they would be required to take their share of the WPPS debt with them, in essence. There are lots of ways to do it, Sheets said, but as you can imagine, allocating these types of costs will be controversial.

The third option to help BPA cover the higher-than-anticipated cost of salmon recovery is to refinance BPA's WPPS debt and/or its federal Treasury debt, Sheets continued. That would probably be difficult to do in this day and age, but it is a possibility. A fourth possibility is some sort of direct federal assistance -- they might be willing to forgive some or all of BPA's current debt to help offset the cost of taking out the Lower Snake River dams. In all likelihood, the best thing for the Northwest in general will be some combination of these strategies, said Sheets -- balancing Bonneville's books by any single one of these measures would be pretty traumatic. All of these alternatives are under consideration by the Transition Board, the Clinton Administration, the Northwest Indian tribes, he added.

Another big issue is timing, Sheets continued. There is currently legislation pending in Congress, and in the states of Washington and Oregon, to change the electrical market rules once again. If we want to have a Northwest solution to BPA's problems, it will be dealt with during this legislative process. BPA plans to begin contract negotiations with its customers in the third quarter of 1999; they want to have those contracts signed and in place by the third quarter of 2000, to cover the period of 2001-2006. BPA is already under pressure to accelerate that process, because many of its customers already have other offers on the table, and they want to know what the Bonneville alternative is going to be.

Concurrently, the Corps and NMFS are on track to make the Lower Snake drawdown/transportation decision and have a Record of Decision signed and in place by January 14, 2000, said Sheets. That may be a little late for the FY'01 budget, and we don't know, at this point, how soon Congress will deal with the necessary appropriations to implement that decision. The concern is that, if that decision is made after BPA completes its contracting process, it may not be possible for BPA to accommodate the financial requirements of the ROD.

The other wild card is the fact that we have ESA listings for steelhead and bull trout in our future, which will shift the focus of the recovery effort from Snake River ESA stocks to Columbia River stocks and upriver stocks, Sheets continued. That may well complicate the equation, as may the Snake River Basin Adjudication -- the claim, filed by the Nez Perce Tribe in Idaho Water Court, for virtually every drop of the Snake River to restore its treaty fisheries. The bottom line, he said, is there are a lot of things happening over the next few years that will put additional pressure on the fish decisions. The important thing is to synchronize the necessary fish decisions with these other processes. If those fish decisions delay the process, that could mean BPA will lose out on the longterm contracts it hopes to negotiate, which would mean BPA will be selling a lot of its power on the spot market. Because the spot market will probably produce less revenue than longterm contracts would, that would make BPA's revenue situation that much worse.

Another option is to move the drawdown decision forward -- to make it sooner than 1999, said Sheets. The Corps has considered that possibility, but bear in mind that the PATH process, under its current schedule, will not complete its analysis of spring/summer and fall chinook and steelhead until October 1998; that's the critical informational component for the drawdown study.
It may be possible to accelerate that work, Sheets said, but that's not what we're doing right now. To conclude that process more quickly will require a substantial increase in the Corps' resource commitment to the PATH process.

One further point, said Sheets -- in the final days of the Comprehensive Review, the Power Planning Council did an analysis under which BPA's fish costs were held constant at the $435 million annual level. We made some assumptions about what natural gas prices were likely to be in the short-term, and what that analysis showed was that, even under those circumstances, BPA would have a real problem making its Treasury repayment. In other words, we have at least one data point that suggests that, even without any additional fish costs, BPA could be in trouble, said Sheets. That means we're going to need to look long and hard at some of the revenue enhancement options listed above. That's a critical point, said COE's Witt Anderson, because it means we have to think very seriously about what we can realistically afford to do under the Fish and Wildlife Program. Whatever we can do to trim fish and wildlife costs now will reduce the number of controversial things we may have to do in the future, said Sheets.

That's an interesting point, said Jim Ruff -- for example, later today, we'll be talking about extended-length screens at John Day Dam. If we make the decision not to fund those screens, we
would save $20 million to $30 million in capital expenditures; however, not having those screens would mean that we have to spill more at John Day, and over time, the cost of that spill would cancel out the capital expenditure savings. The reverse is also true -- if the screens allow us to meet the FPE target with less spill at John Day, those savings would help to offset the capital

cost of the screens themselves.

What is the forum in which those tradeoffs will be discussed? asked Ron Boyce of ODFW. I think there will be several forums, Sheets replied -- for FY'98, those issues will be discussed within SCT, as well as CBFWA. The Fish Managers have also asked their staffs to begin focusing on these longterm issues, and report back at the next CBFWA Members' meeting. The Executive Committee is also wrestling with this issue, as, to a certain extent, is the Transition Board. Ultimately, however, the states, tribes and federal agencies are going to have to get together and sort this out.

In response to a question from Boyce, Anderson said the Corps is continuing to look at ways to speed up the PATH process. The really critical facet of that effort, in terms of making choices between the available options for the 1999 decision, is the stock performance analysis, Anderson said. You have to have a scientific basis for whatever recommendation is made. Once that technical work is done, we'll need to craft that into a draft EIS, a process that will probably take several months. The current schedule for that effort is to have a final EIS in hand by late 1999, which would allow us to produce a final ROD by January 2000. Theoretically, at least, that will allow us to get that to Congress for consideration in the Water Resource Development Act, a process that takes place on a two-year cycle. But the difficulty remains: how do we position ourselves, from a budgetary standpoint, to be able to implement whatever option is chosen in FY'00 or FY'01, if the decision isn't made until early 2000? It can be done, but that will mean that we need to start budgeting plans and specs funding for inclusion in the FY'00 budget. We would have to do that in 1998. It's conceivable, in other words, said Anderson -- we're looking at it, but whether or not it can actually happen is unknown at this point.

In response to a request from Boyce, Sheets agreed to put the information used in today's briefing
into written form, to be used as a reference during continued discussion of the issues raised today. If you could submit that to Bill or me, we'll distribute that to the SCT participants, said Ruff.

Report on Corps Operations and Maintenance (O&M) Budget.

Hevlin introduced COE's Gary Johnson, who distributed Enclosure C -- an extensive collection of estimated FY'99 reimbursable fish passage O&M costs. These estimates were developed by the Fish Passage O&M Coordination Team, he explained. This is a very large task,
said Johnson; the O&M subcommittee formed a separate work group to develop these estimates, consisting of members from the Corps' Portland and Walla Walla Districts, NMFS, CRITFC, WDFW and the Fish Passage Center.

He spent a few minutes explaining what each column of the Enclosure C spreadsheet represents. This information is self-explanatory, until you reach the column labeled "% Power ER," Johnson said. Each project has a specific percentage allocated to power; that's the portion of the Corps' total expenditure on this item in the fish and wildlife program that BPA reimburses to the U.S. Treasury. Item 1 on the spreadsheet is fish hauling activities at Bonneville Dam; the FY'98 cost of this activity is $327,000; the % Power ER is 50%; therefore BPA's portion of this cost

(represented by the "Estimated Power Cost" column on the spreadsheet) is $163,500. The next column is "Estimated Cumulative Cost," which is an attempt to quantify the cumulative power cost for each item on the spreadsheet. The "Priority" column reflects the CBFWA ranking of each line item.

In general, CBFWA ranked all of the Columbia River activities as high priority, with the exception of fish transportation activities (please see Enclosure C for detailed cost and prioritization information). Johnson added that the "Non-Routine" items are activities that have not previously risen above the funding line, but have been ranked as either high or low priorities by the Corps, the Fish Passage Center, NMFS, WDFW and/or CRITFC.

Bear in mind that the estimated costs listed for each of these items are the dollar amounts in the FY'98 budget, which has already been approved by Congress, said one meeting participant -- we can't tell you yet what the FY'99 cost for each item will be, but this gives you an idea of the Corps' current costs.

In terms of the budget preparation, said Johnson, each of the projects has submitted their budget to the appropriate district office; we are bundling those packages for submittal in the near future. Within Portland District, we're in the process of making sure that the items designated as high priority are at the top of the O&M budget we submit.

In response to a question, Johnson said the "routine" items listed in the Enclosure C spreadsheets will show up in the O&M budget, as they have shown up for a number of years. As for the items labeled "Non-Routine," he said, Portland District intends to include the high-priority items that are not included in the Columbia River Fish Mitigation Program in the budget package we submit. I'm not sure what Walla Walla District plans to do with its non-routine items, he added.

Where do we go from here, as far as continued discussion of some of these items? said Boyce. The SCT is the group that assigned the O&M subcommittee to work the FY'99 budget, and we're certainly interested in any additional input the SCT may have, Johnson replied. What's the timing of the submittal? asked Boyce. We will be submitting the budget to the North Pacific Division in early May, Johnson replied. And you would like some concurrence from SCT on the budget before it's submitted? asked Boyce. Certainly that would be appreciated, Johnson said.

It sounds like you're contemplating adding the high-priority non-routine items to the budget, said Rod Woodin of WDFW. Have you discussed to possibility of reducing some of the routine activities to absorb the non-routine expenses? Yes, Johnson replied. At least at this point in the game, we're mainly focused on getting the FY'99 budget set up. After that, we'll go into more of an education mode, and begin talking in more detail about what makes up the individual line items in the budget. There's a lot of detailed information, and it takes awhile to get people up to speed. We do intend to look at that possibility, however. It's important to identify the high-priority non-routine items, so that as monies become available during the fiscal year, we have an opportunity to re-allocate dollars to those activities.

After some minutes of further discussion, BPA's Phil Thor made the point that, while Congress has generally been willing to provide adequate funding for the items on the routine O&M budget list, it is unlikely that the FY'99 O&M budget will include additional funding for the non-routine items. At least from a prospective point of view, he said, those items are there in case we have

an underrun of routine expenditures -- if that happens, we may have an opportunity to do some of the non-routine activities. That's correct, said Johnson.

The $20 million total for the FY'98 O&M budget covers the activities of both the Portland and Walla Walla Districts? asked Ruff. Correct, Johnson replied. And that includes resident fish, wildlife and hatcheries? asked Ruff. Correct, Johnson replied. What is the total for fish passage facilities? Ruff asked. It's $5.1 million for Portland District and $8.7 million for Walla Walla, said Johnson.

One other question on the list of projects, including non-routine items, said Ruff -- the tribes had proposed a number of other items, some of which were O&M-related, for which we reprogrammed FY'97 funds -- are some of those items included on this list? Some are, Johnson replied. Is it fair to say that the items on the CRITFC list on which the SCT concurred are included in this list? asked Anderson. Yes, Johnson replied. Are there any other items that have been added subsequent to that conference call? Anderson asked. Not that I'm aware of, Johnson replied.

Will there be some issues identified during this O&M prioritization process that will need to be brought back to the SCT? asked Hevlin. One, for sure, Johnson replied -- the transport issue. Certainly the budget package includes the full transport scenario. If the decision is made to reprogram a portion of those fish-hauling dollars, those dollars may be available for non-routine items. That's probably not a decision this group would make, observed Ruff -- that sort of thing is discussed at the TMT level, then up the line to IT and AC. Our job is to provide the facilities if and when transport occurs.

The other item that may come back to SCT has to do with the fact that, as we work through the list of non-routine items, we'll certainly run into items that the region views as a high priority, said Johnson. At some point, the decision may be made not to fully fund an item on the routine list. If that occurs, this group will probably be asked to talk about which item or items on the non-routine list should receive those available dollars.

Where should we send comments on this list? asked Boyce. I think we had agreed previously that FPOM would work this budget, and would keep us apprised of their process, said Anderson. If issues or unresolved problems arise, we'll have an opportunity to discuss them at SCT. I don't necessarily want to duplicate the work they're doing at this group, he said.

Review of FY'98 Issue Summaries for May 1 Implementation Team Meeting.

This is the main item on today's agenda -- to discuss the five issue papers faxed out for review last week, said Hevlin (these issue papers are attached to Enclosure A). Our hope was that you would be have time to review those papers, and be ready to discuss them at today's meeting.

As you'll recall, the Implementation Team had requested that these issue summaries be finalized by Friday, April 25, Hevlin continued. That was to give the IT time to review our summaries prior to their May 1 meeting. Other things have happened in the last week or so that may change the delivery timing for these projects. The three issue papers previously delivered to IT covered the completion of the screen systems at the Lower Snake projects and McNary, starting the extended-length screen installation at John Day in 1998, and the Bonneville mitigation plan,

particularly starting work on the B2 outfall and B2 collection system improvements, as well as FGE prototyping at B1.

At last week's CBFWA meeting, they got into the tribal big picture issue about whether or not to fund some of these improvements in the Lower Snake -- the opportunity cost issue, in other words, if in fact we're headed toward a drawdown decision in 1999, said Ruff. The discussion touched on the three FY'98 items for which we had already developed issue papers. The Lower Granite Dam surface collector was also added to the list, replacing the bypass improvements in the Lower Snake River. That issue will be taken up by the CBFWA members in a special meeting this Friday, together with extended-length screens at John Day and the Bonneville Dam fish passage plan.

We still do not have the minority-viewpoint issue paper from the tribes which we hoped to have at the last SCT meeting, Ruff continued. Bob Heinith has promised that that issue paper will be delivered by Thursday of this week, prior to the Friday CBFWA meeting. Once that is received, it will be distributed to the SCT membership. In the meantime, the CBFWA membership will be trying to resolve these issues among themselves; they will be elevated to IT if consensus cannot be reached at the CBFWA level.

In response to a question, Keith Kutchins of CBFWA said his organization is proposing alternative items for funding, but the first step, deferring or holding in abeyance funding for these
three items, remains to be addressed. CRITFC would prefer to have their funding proposals implemented, but have indicated that they would be satisfied to have funding for these three projects held in abeyance, while the region discusses the most effective use of these available funds.

In response to a question, Boyce said the forest issue, as well as the specifics of these three projects, will be discussed at the Friday CBFWA meeting. My understanding is that CRITFC, and perhaps the Shoshone-Bannock Tribes, will also have a list of alternative projects for discussion at that meeting, he added.

If you're going to talk about the opportunity cost issue, that resources are limited and we want to have maximum funds available at the end, when we've come to regional consensus about what the right activities are to bring about recovery, to me, that raises a much broader set of questions revolving around the DGAS program, turbine studies, everything, now that we have some cost estimates for each measure, said Anderson. To put this into an SCT context, in light of the issues Ed Sheets raised this morning, if the tribes have alternative capital expenditure items in mind, but
have not yet done the planning and engineering on them, it's totally unrealistic to expect that they will be implemented in an FY'98 time-frame.

My understanding is that these issue papers are coming out of the tribal MYIP proposal, said Ruff. My hope was that they would focus, in their afternoon discussion, on defining interim benefits and risks if these projects are deferred. My understanding is that it is their intent to provide that information for Friday's discussion, said Boyce -- I think we'll have all of that information there, and we can probably defer further discussion today.

The forest issue is ultimately going to be a policy call, said Hevlin. What's difficult is, while we've had an opportunity to discuss the technical merits of the plans addressed in the briefing papers SCT has produced for IT, we haven't really had an opportunity to critique the science behind the tribes' proposed alternatives. If those had been developed, we could have scrutinized them from a technical standpoint, then passed that technical analysis on to the policy people so that they could compare the plans, Hevlin said.

That very point came up during last Friday's conference call, said Ruff, and the suggestion was made that the SCT convene a special meeting on Thursday, April 24, to go over the "minority opinion." I'll throw that out to the group -- should we have an SCT technical discussion on the merits of the tribal proposals prior to the CBFWA meeting on Friday? The problem with that is that we're talking about some very important projects, said Hevlin -- even if we get those tribal papers tonight, that technical analysis deserves more than a couple of days. However, after some minutes of discussion, the SCT agreed to convene a conference call to discuss the tribal alternatives on Thursday, April 24. The goal is to ensure that CBFWA is provided with a full understanding of the interim benefits these measures will provide for fish prior between now and implementation of the 1999 drawdown/transportation decision.

The five issues to be discussed today include: the Lower Granite surface bypass program, the separator evaluation, the John Day smolt monitoring facility, The Dalles spillway and sluiceway survival study, and the turbine passage survival program. What I propose we do today is provide a brief presentation on each issue, said Ruff, and give the SCT a chance to provide any comments or refinements before the papers are submitted to the IT next week. After some minutes of further discussion, it was so agreed.

Hevlin directed the meeting participants' attention to the five briefing summaries attached to the agenda for today's meeting (Enclosure A), beginning with

a) Continued Surface Bypass Testing at Lower Granite Dam. Mike Mason distributed Enclosure H, a draft summary of the Lower Granite Dam Surface Bypass and Collection Proposed 1998 Prototype Test, dated April, 1997. Hevlin added that the Lower Granite Surface Bypass Test briefing paper for the IT was prepared by COE's Walla Walla District, without input from NMFS. NMFS is supportive of the 1998 test, because of its informational importance to the 1999 decision, but at the same time, there may be some components of this 1998 test that we don't completely agree with, he said. For that reason, we wanted to hear what the other salmon managers think about what's being planned for 1998 before a final decision is made.

I'd like to hear what other people think about the need to test the behavioral guidance curtain in 1998, and whether that may or may not provide us a clean result on the surface collector, said Boyce. Has FFDRWG or the Studies Review Work Group discussed the possibility that the addition of the curtain may interfere with the researchers' ability to get clean data from the surface collector test? My concern is that the BGS is adding another variable to the 1998 test that might make interpretation of the results difficult. We spent quite a bit of time talking about that, said Teri Barila of COE's Walla Walla District. Because we will have the ability to remove the behavioral guidance device from the SBC itself, the feeling was that data quality will not be adversely affected.

We'll be able to test the collector with and without the curtain in place, in other words, Barila replied. To expand on that a bit, said Steve Rainey of NMFS, one of the things we saw in the 1996 test was a 50% rejection rate for fish approaching the entrances to the SBC. One of the things the curtain will address is the fact that the fish that are hesitating will not be able to go around the device -- they will have fewer options.

Will we be able to get our hands on some of the volitional migrants in-season to examine them for injuries caused by either the guidance curtain or the prototype surface collector? asked Boyce.
We haven't discussed that, said Barila -- there really hasn't been a concern raised at either FFDRWG or SRWG about the potential for the BGS to cause injury problems. We've mainly been discussing how to use radio telemetry and hydroacoustics to assess the performance of the structures. In-season, how will we know if we have an injury problem? asked Boyce. By evaluating fish performance and behavior, to the extent that we're proposing, Barila replied.

I would still like to have some real-time information on the potential impacts of these test structures on migrating fish, said Boyce. We can certainly discuss that in the context of the monitoring and evaluation component of the 1998 research summary, which is currently out for review, said Barila.

So what's the next step in the surface collector program, asked Boyce -- will we know, after the 1998 test, whether this is a go or a no go? That will be based on the performance we see in 1998, and the time-scale for the decision document, replied Barila. There is a placeholder for more studies in 1999, observed Ruff. It will still be possible to incorporate data from the 1999 field test season in the draft Feasibility Study, which will hit the streets in the fall of 1999 -- the goal is to ensure that that document reflects the best and most current information.

What estimate has Walla Walla District put together for the cost of this addition to the surface collector program? asked Boyce. Everything we're doing at Lower Granite this year, in a way, is something new, replied Mason. The current budget shows $13.8 million, but that wasn't based on the current program -- it was primarily placeholder money from things like the Ice Harbor guidance curtain project. Chance are that the actual cost of the 1997 surface collector test will be very close to that $13.8 million figure, Mason said -- I've heard estimates as high as $17 million, but I don't think we're prepared to say, at this point, that we'll need more than the $13.8 million to conduct this test. Mason said the Corps plans to complete the design work on the behavioral guidance curtain, including a basic cost estimate, by late June or early July 1997, with the goal of awarding that contract by early October.

So we originally had $10.5 million in the budget for the 1998 surface collector test, we've added the $3 million from the Ice Harbor curtain test, and that's what we have on the books right now? asked Boyce. That's correct, was the reply. And if the estimate does turn out to be $17 million, where will that extra $3 million come from? asked Steve Pettit of IDFG. We'll have to come back to this group, and submit it to the 1998 prioritization process, Mason replied. If we do get the $127 million the Corps has asked for in FY'98, we won't have a problem. If we get something less than that, obviously, there will be a lot of tough choices to be made.

One point we should be aware of, said Rainey -- if the 1998 surface collector test is a bust, and we don't see very positive results, the Corps really isn't clear about what the next step will be in

the surface collector program.

One thing the briefing summary on this issue lacks is a clear connection to the PATH decision, said Hevlin -- PATH is being asked to choose between transportation and drawdown. If this surface collector test produces encouraging results, and we see 90% FPE through a combination of surface collection and screens, that could have a definite impact on the PATH decision. How many more fish do we need to get our hands on to deem the surface collection test a success? asked Boyce. That's the question for PATH, Hevlin replied. I think this is a very important point, said Boyce, because certainly it's not clear, to me at least, exactly how this test fits into the regional decision matrix.

It's just one of many informational and analytical components that have to come together for the region to make the 1999 decision, said Barila -- this effort, PATH, the Independent Economic Analysis Board and others are all pieces of the overall puzzle.

To answer Ron's original question, said Hevlin, my understanding from the PATH group is that, if this surface collector test yields high FPE -- near 90% -- and if the transport studies also show positive survival results for transported fish, that could lead to a conclusion that the transport option could be a viable path to recovery. A home run on surface collection would certainly make PATH's task simpler. Don't forget that there's still the possibility of an in-river alternative, he added -- if you didn't do the 1998 test, you wouldn't know what your in-river possibilities are, either. That's correct, said Mason -- if it's successful, this behavioral guidance curtain could also be used to enhance spillway passage efficiency.

Dave Hurson agreed to flesh out the section of the briefing summary dealing with the integration of the surface collector test results into the PATH process. Other comments? asked Ruff. I think you need to add some black-and-white sideboards regarding biological impacts to both juvenile and adult migrants, along the lines of what we discussed at the meeting two weeks ago, said Pettit. We can lay those out, Barila agreed, but I don't think I can do that by Thursday's meeting. The monitoring plan will certainly be included in the packet that goes out for regional review. You may just want to mention in the briefing summary that those biological criteria are being developed, suggested Hevlin. We can do that, Barila agreed. Boyce reiterated that a mechanism for evaluating injuries caused by the SBC and guidance curtain needs to be included in the monitoring and evaluation plan. He also asked that mention be made in the briefing paper that we do not currently have the capability to dewater the volumes of water passing through this surface collector; our ability to collect fish for transportation is unknown at this time. That could be handled in a sentence or two, said Ruff.

After some minutes of further discussion, Ruff said the above comments would be added to the briefing paper. Will this be characterized as an SCT document? asked Boyce. It was agreed that the Corps will make the agreed-upon changes, then distribute the briefing summary for final SCT review prior to the May 1 IT meeting. If you have any additional changes, please call me tomorrow, said Mason. It was agreed that, following this final review, the summary will be characterized as a draft SCT document.

b) Separator Evaluation. It's extremely doubtful that this issue, and the other three issues summarized here, will be discussed at Friday's CBFWA meeting, or at the May 1 IT meeting, said Hevlin. For that reason, I'm not sure how critical it is for us to work through them

today. After a few minutes of further discussion, no comments were offered on this briefing paper at today's meeting; Hevlin said it would be presented to the IT as a draft SCT briefing paper. It was agreed that, once the SCT has a chance to review the paper in more detail, any further comments would be provided to Ruff or Hevlin.

c) Completion of John Day Smolt Sampling Facility. Again, I'm not sure there's much sense in us spending a lot of time on this briefing summary today, Hevlin said -- this facility is scheduled to be completed in November, and it would probably cost more to get the contractor to stop work at this point than it will to finish the project. After a few minutes of further discussion, no comments were provided on this briefing paper at this time; again, it was agreed that it would be presented to the IT as a draft SCT document.

d) The Dalles Spillway Survival Study. Will Stelle recently provided a written response to Ted Strong's letter critiquing this study, said Hevlin; in his letter, Stelle thanked CRITFC for its comments, but said NMFS intends to move forward with this study in 1997. The issue addressed in this briefing summary is whether or not to continue with the spillway survival study in 1998. Again, after a few minutes of discussion, no substantive comments were provided on this briefing paper; again, it was agreed that it would be presented to the IT as a draft SCT document.

e) Turbine Passage Survival Study Program. Ruff asked that the Corps include some information on the expected benefits of minimum-gap runner technology to turbine passage survival; no other substantive changes were made to this briefing paper at today's meeting.

After a few minutes of further discussion, it was agreed to go ahead and submit these five issue papers, as requested, to the IT by April 25, regardless of whether or not the tribal "minority opinion" briefing papers are submitted at that time. We'll simply note that these draft briefing papers were developed by SCT in support of these various projects, said Ruff; when the other papers are received, we'll let the IT know that they were developed by SCT in opposition to these various projects or studies. COE's Rudd Turner expressed a concern, echoed by Hevlin and Woodin, that it is somewhat misleading to characterize these opposition papers as an SCT product, when in fact the SCT has not yet seen them or had a chance to debate their technical merits. We'll make that distinction clear at the IT meeting, said Hevlin. And unless further comments are received, these papers will be submitted to the IT on April 25 as amended today, added Ruff.

Update on Flow Deflector Installation at John Day Dam.

The contractor is currently working on the second flip-lip, and it now looks like we'll have two bays equipped with flip-lips at John Day during the 1997 migration season, reported Bob Willis of COE. We will be writing NMFS a letter explaining the current status of the John Day flow deflector installation project, and requesting that work be allowed to resume at the beginning of August, he added.

Updates on FFDRWG and AFEP.

FFDRWG last met in Portland on April 1, said COE's John Ferguson. No items were raised to SCT at the meeting. The main topic of discussion was the surface bypass program at Bonneville Dam. With respect to B2, we sought and, ultimately, achieved, concurrence on the corner collector concept, rather than a full powerhouse collector, Ferguson said. That will require dewatering? asked Boyce. Yes, Ferguson replied. Will that be available? asked Boyce. We don't know yet, Ferguson replied -- we've just begun to have those discussions.

We also talked about the guidance curtain concept at Bonneville in 1999; Portland District is scoping that right now, said Ferguson. It is funded for 1998 and 1999; we're looking at a 1999 prototype test, and we got concurrence at the FFDRWG level to scope that for B2 only at this point. The third thing we discussed was dewatering, and where to place the necessary outfalls; it's a big issue, and there are a lot of concerns. So far, we have consensus to move forward with the dewatering program for B1.

The fourth item we discussed was the 1998 prototype at B1, Ferguson continued. We had a lot of discussion about whether to do a slot or, as NMFS is suggesting after a recent trip to WES, an inverted T. We're proceeding with the B1 prototype design, as well as discussions on the inverted T, he said; we're on track for a deep slot test in 1998. When will the Corps be making a decision about whether to go with a screen system or a surface collector at B1? asked Boyce. It could be as early as 1998; it will depend on how good a test we get, and how comfortable people feel with the results, Ferguson replied.

Moving on to a quick update on the Corps' DGAS program, Ferguson said prototype site selection work is proceeding; the 30% Phase II document is due out very soon, and an all-day meeting to talk about gas abatement is scheduled at Portland District Headquarters for April 29. At that meeting, they'll be discussing whether to test the prototype at Ice Harbor, or at Bonneville, Hevlin added. The next FFDRWG meeting is scheduled for May 1, Ferguson said.

The other thing I wanted to discuss today was the program the AFEP Studies Review Work Group has been looking at to study fish behavior in the flumes, said Ferguson. He distributed Enclosure D, a memo, dated March 28, 1997, titled "Information Paper on John Day Behavioral Flume," which contains a detailed overview of the behavioral flume program, as well as Enclosure E, a collection of overheads prepared for a briefing of the North Pacific Division Commander. Ferguson spent a few minutes going through the contents of these overheads, and acquainting the SCT with the background and details of the program (see Enclosures D and E for details).

Essentially, this behavioral flume study arose from a desire to ensure that entrance conditions and flows in the near-field zones of the surface collectors are optimal to draw fish into these facilities, Ferguson explained. The question we're trying to answer with this program is, what is the best approach to develop surface bypass systems that are successful, and that meet the regional timeline. One way to get at those answers is to build a flume, and expose fish, in repeated trials, to various flow conditions and velocity fields, then apply that, in conjunction with a prototype test, out to surface collection development and design. Our feeling is that we can greatly enhance our surface collector performance with such a flume, Ferguson said.

The current schedule calls for construction in 1997 and testing in 1998, 1999 and 2000, after which the flume will be dismantled. The cost of the flume itself is $1.4 million; the total cost of

the program, through removal, is $4.6 million. Of that total, $1.5 million is included in the FY'97 budget; the remaining $3 million is unbudgeted; we now have the go-ahead from Division to take those construction costs to the region and say, here is an added cost to the system that we think will enhance our ability to develop an effective surface bypass system, Ferguson said. In response to a question, Ferguson said the $3 million expenditure would be spread over three years.

Has anything like this been built in the region before? asked Boyce. Just the Pasco flume, Ferguson replied -- other than that, the only thing I'm aware of is the old Bonneville Hydraulic Lab. That was less a flume than a fish response test structure. But really, we don't have a template for this project.

We feel this project is important enough to the region that, in our internal discussions, we have been talking about the need for an oversight team, consisting of representatives from NMFS, the PUDs and SCT, to conduct a detailed review of the biological study plan for this project, said Ferguson. We want to know exactly what we need to test, and how we're going to test it, and we'd like to have the greatest possible amount of regional input on that test.

I can see the logic behind what you're proposing, as well as the attractiveness of the potential benefits, said WDFW's Rod Woodin. However, the degree of control over the results you'll get from this flume, vs. the lack of control out there in the real world, is likely to make those results unrealistic. It's a good point, and we don't pretend that we can remove every shadow of doubt with this test, said Ferguson -- we're willing to be honest and admit that there are some risks here. But we don't think the risks are unacceptable, and we're not talking about a ton of money here. We think the potential enhancement in prototype performance is worth the risk.

After some minutes of further discussion, Ferguson said the purpose of his presentation today was primarily to frame the issue for SCT consideration; I don't expect any decisions today, he said, but we do need to make a decision soon. Perhaps the logical next step is to get the oversight committee the Corps is recommending together prior to the May SCT meeting, suggested Hevlin. Logistically, it may make more sense to discuss it at the May 1 FFDRWG meeting, then report back at the May SCT meeting, said Ferguson. It was agreed that any SCT members who wish to participate in that discussion can bring their comments to the FFDRWG meeting. And we'll put it on the agenda for a decision at the May SCT meeting, Hevlin added.

Barila provided this month's AFEP update. We met for a day and a half, she said; the first day was devoted to an update on all ongoing activities; the second fill day was devoted to discussion of the surface bypass program. The updates covered the new perf plate design on the McNary VBS, which appears to be providing a more uniform flow; problems with the extended-length screens at Lower Granite; deployment of extended-length screens at Little Goose Dam; installation of extended-length screens at McNary (12 units are now outfitted with screens) and flow deflector installation at Ice Harbor Dam.

On the latter subject, Barila reported that Walla Walla District's recommendation is to proceed with construction of all 10 flip-lips, plus the training wall. That will require as early a work window as possible, once involuntary spill subsides; Walla Walla would prefer to begin work in July. A letter from COE District Engineer Donald R. Curtis to Brian Brown, Director of the NMFS Hydropower Program, explaining the Corps' proposed Ice Harbor flip-lip construction

plans, is attached as Enclosure F (see enclosure for further details).

When do you need a decision from the region on this project? asked Hevlin. As soon as possible -- preferably by May 1, so that contract negotiations can begin, said Barila.

In response to another question, Barila said no spill for subyearling fish passage would be possible at Ice Harbor during the work period. I think this schedule would be easier to accept if the Corps can provide some sort of mitigative activity to offset the absence of a 1997 Ice Harbor spill program, in terms of subyearling migrant survival, said Woodin. We'd be happy to evaluate any specific actions you can suggest, Barila replied. However, bear in mind that the reason we're undertaking this project is to provide biological benefits to migrating salmonids -- we're trying to honor the commitment, in the Biological Opinion, to get flip-lips installed on all 10 bays before the 1998 migration season. I still think it should be up to the Corps to develop some mitigation alternatives, Woodin said.

After some minutes of further discussion, it was agreed that the Ice Harbor flip-lip construction schedule, and possible associated mitigative actions, would be discussed further at tomorrow's FPAC meeting. In the meantime, SCT is aware that a decision needs to be made on this project before May 1.

Moving on, Barila continued through the list of updated topics from Day 1 of the most recent AFEP meeting: scope-of-work efforts for auxiliary water supplies; the setting of a meeting date (9 a.m. April 29 at COE's Portland District HQ) to discuss additional spillway alternatives for the DGAS structure; the Dworshak grouting operation; Lower Granite rip-rap replacement; the now-completed Ice Harbor rehab report (another letter from Lieutenant Colonel Curtis to Brian Brown, providing details from the Ice Harbor rehab report, is attached as Enclosure G); debris abatement activities at McNary and, last, McNary and Lower Granite turbine modeling efforts.

We also devoted a block of time to the Lower Snake Feasibility Study -- the 1999 decision document, Barila continued. We reviewed the schedule for the study, discussed some of the issues that have arisen, reviewed the work of the IT/PATH subgroup as well as results from the first monthly public meeting on the study, held April 14 in Portland. We also talked about Steve Tatro's adult fish passage design criteria, said Barila; we'll have a 30% design review for that project in early May, which will then be turned around for review by agencies and tribes.

The final status update was on the Lower Granite JBS dewatering concept; essentially, we rehashed some of our previous discussions about the applicability of this particular design, whether or not Lower Granite is the best facility at which to place this system, and about the reliability of this particular design. There was agreement that we would continue to look at those performance and reliability questions, and come back with updates on the hydraulic and mechanical components of the design, Barila said. No final decisions were made at the meeting.

The second day of the AFEP meeting was devoted to the Walla Walla District's surface bypass and collector program, Barila continued. The main purpose of the meeting was to review the logic trail for the program, starting with the 1994 brainstorming session. As most of you are aware, she said, the main test of this application will be in 1998 -- the Wells intake structure and the behavioral guidance curtain. The majority of the day was spent updating the participants on the most recent results from the WES modeling, and the ways in which that information has been

incorporated into the 1998 program. In general, we had a very good discussion, with overall understanding of and support for where we are, where we're headed and what we're trying to achieve with this program. Barila added that the minutes of the most recent AFEP meeting will be available next week; please see these notes for a more detailed discussion of all of the items in her report.

Next Meeting Date and Agenda Items.

The next SCT meeting was scheduled for Wednesday, May 21 from 9 a.m. to 4 p.m.at NMFS's Portland offices. The June SCT meeting was scheduled for June 16. Meeting notes prepared by Jeff Kuechle, BPA contractor.