

Final Notes June 30, 1998

IMPLEMENTATION TEAM MEETING NOTES

June 4, 1998, 9:00 a.m.-4 p.m.

NATIONAL MARINE FISHERIES SERVICE OFFICES
PORTLAND, OREGON

I. Greetings and Introductions.

The June 4 meeting of the Implementation Team, held at the National Marine Fisheries Service's offices in Portland, Oregon, was chaired by Brian Brown of NMFS. The agenda for the June 4 meeting and a list of attendees 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 in the body of the text may be too lengthy to attach; all enclosures referenced are available upon request from NMFS's Kathy Ceballos at 503/230-5420 or via email at kathy.ceballos@noaa.gov.

I. Introductions and Review of Agenda.

Brown welcomed everyone to the meeting, led a round of introductions and a review of the agenda. He introduced Cathryn Collis, the facilitator for today's meeting, explaining that he had asked Collis to essentially chair the meeting, freeing him to act as the NMFS representative to the group.

II. Updates.

A. In-Season Management. TMT chair Cindy Henriksen distributed copies of the most recent TMT spreadsheet, to give the IT a sense of the current status of the system; she then went through the June early-bird water supply forecast, saying that it shows a dramatic increase in expected runoff compared to the May final forecast. At Grand Coulee, for example, the June early-bird forecast shows an expected runoff volume of 55.6 MAF, 94% of average, up 4% from the May final forecast. The biggest change is at Lower Granite, where the April-July water supply is now 22.4 MAF, 103% of average, up 23% from the May final. At The Dalles, the January-July forecast is now 97 MAF, 92% of average, up 8% from the May final. Henriksen explained that this increase in the forecast water supply is the result of an extremely wet May in much of the basin; she cautioned that, since it fell mainly as rain, much of that water has already passed downstream.

What that means in terms of seasonal average flows, she said, is that, at Lower Granite, for the spring season (April 10-June 20), the spring average flow is now expected to be about 113 Kcfs, which is greater than the spring seasonal objective of 90 Kcfs. At McNary, the expected spring seasonal average flow is now 285 Kcfs, greater than the spring seasonal target at that project of 228 Kcfs. In response to a question, Henriksen said these numbers are based on the

May final forecast, rather than the June early-bird forecast.

We expect that most projects will refill by June 30, Henriksen continued; Dworshak is already full, and Brownlee is in the top one and a half feet of its operating range. Other projects are filling very rapidly; Hungry Horse is within 10 feet of full and filling so quickly that outflow may be increased to slow the rate of refill. Libby is also filling rapidly, she said; we have heard that the Fish and Wildlife Service may be requesting that the sturgeon incubation flow period, expected to end on June 10, be extended by two weeks, and the Corps would welcome that. We will be discussing that request with the other salmon managers, said Marv Yoshinaka of the Fish and Wildlife Service; there may be an issue with respect to the impact of those additional flows for sturgeon on the volume of water available for salmon flow augmentation in the summer period. The Corps thinks it should be possible to extend the sturgeon flow period and still refill Libby in early to mid-July, Henriksen said.

At Grand Coulee, the flood control elevation limit is currently 1287 feet, Henriksen continued; we expect to hold that limit through June 14, although it is being re-evaluated on a daily basis.

B. Plan for Analyzing and Testing Hypotheses. Recent PATH activities were covered under Agenda Item III.

C. Integrated Scientific Advisory Board. No ISAB update was presented at today's meeting.

D. Dissolved Gas Team. Recent DGT activities were covered under Agenda Item IV.

E. System Configuration Team. Jim Ruff of the Council staff, co-chair of the SCT, distributed a report, "Independent Engineering Review of the Corps of Engineers' Mainstem Capital Construction Program," dated May 18, 1998. This document is attached as Enclosure C.

This report is part of the Congressionally-mandated review of the Corps' Columbia River Fish Mitigation Program, Ruff explained. There are two parts to the review, he said – the technical/scientific part which is ongoing right now, and the policy part, which is intended to address the policy issues raised in the scoping document for this project. This report (Enclosure C) was generated in response to one of those policy issues, he explained – what means may be available to obtain independent engineering review of the Corps' engineering, design, scheduling, cost estimation and construction practices for the CRFM program?

This issue paper was approved by the Council at its May meeting and subsequently released for comment, Ruff said. He spent a few minutes going through the contents of the report, which focuses on the three main review processes used by the Corps: value engineering, technical review and project partnering. These are standard, widely-accepted engineering review processes, Ruff said; the question this paper attempts to answer is, is the Corps doing enough? Is there more that could be done to help keep projects on-schedule and on-budget? The paper identifies two key issues with regard to the Corps' review processes:

1. How to obtain regional agreement on project scope and schedule early in the process.
2. How to provide truly independent engineering review of Corps CRFM projects.

The Council is asking for comments on these issues, Ruff said; they can be provided in written form or in person at the upcoming Council meetings and work sessions on June 10, June 30-July 1 and July 22. The Council is also willing to consult directly with interested entities. Comments are due by July 24.

Ruff added that one of the concerns raised by the Corps is that the lack of participation and input from some state and tribal fishery agencies is a frequent problem in the project review process; as has been discussed previously at IT, many of those entities lack the necessary funding and staff to fully participate in FFDRWG and other project review fora. One of the options raised in the paper, Ruff said, is the possibility of a partnering agreement once a project has been identified for design; the goal of such an agreement would be to develop a mutually-agreed-upon project objective, a conflict resolution process and a process for communicating progress on the project. Each entity would be represented at each of the meetings, ensuring full participation and buy-in on project development.

One option, identified in the paper, would allow representatives of the fishery agencies and tribes to charge their time against a particular project, during the development of the project scope, schedule and engineering design review process, Ruff continued. It is hoped, if this option is pursued, that the savings we would realize in reduced schedule slippages and design costs would offset the cost of full participation. The Council is seeking comment on this issue, Ruff said, particularly on how it could be done. We're not trying to change the existing Regional Forum process with this concept, he added – we're simply trying to make the project review process work better.

Yoshinaka raised the concern that his agency, and others in the region, simply don't have the staff to fully participate in the project review process. Even if there was an account against which we could charge staff time, he said, the staff to perform that task doesn't exist. That's a fairly major problem, said Brown – to me, that means that the amount of money dedicated to this effort would have to be fairly significant, if in fact it is necessary to fund a half-dozen full-time positions at CBFWA, the Fish and Wildlife Service and elsewhere. Is there a plan to develop a more detailed scope or funding estimate for the process you've described? he asked. The cost estimate still needs to be developed and discussed by the region over the next several months, Ruff replied – that's exactly the kind of input we're seeking.

Moving on, Ruff spent a few minutes discussing Issue 2, above. The paper proposes three alternative approaches to ensure truly independent engineering review of Corps CRFM projects, given the fact that, in the past, the vast majority of value engineering team members have been Corps personnel; these alternative approaches are summarized on Page 8 of Enclosure C. Ruff said the Council is seeking comments on these alternatives as well. He added that the SCT will also be providing comments on this paper.

The next item under the SCT update was a report on the status of the John Day extended screen implementation decision. Bill Hevlin of NMFS, co-chair of the SCT, explained that there are currently 58 items on the SCT's FY'99 spreadsheet for capital construction; the SCT is in the midst of ranking those items in terms of FY'99 budgetary priority.

Before I discuss that process, he said, I wanted to update the IT on the status of John Day extended screen implementation, because there have been some setbacks in the timing of the

installation of those screens. As you'll recall, the 1996 extended screen prototype test at that project demonstrated that juvenile survival could be increased with extended screen installation, he said. In 1997, some structural problems were identified with the prototype; these needed to be corrected before full implementation of the John Day extended screen program could proceed. A new prototype was developed last winter to solve those structural problems; this prototype went into the water for structural and biological testing in April of 1998.

A few days after the prototype was installed, an increase in juvenile mortality was noted at one of the smolt monitoring facilities, Hevlin continued. The screen was immediately taken out of the water, and a test was devised to see whether the prototype screen was the culprit in this increase in mortality. The bottom line is that this test did not show any increased mortality in the fish coming out of the gatewell at John Day, Hevlin explained. In the meantime, the Corps had planned to begin a 30-day structural test of the prototype about two weeks ago; however, there have been problems in getting that underway, primarily because of procurement problems. It now appears that the Corps is ready to begin the structural test, he said. While that structural test is ongoing, we will be doing additional biological testing, to look for additional mortality.

The SCT supported this 30-day testing in the course of its deliberations on John Day extended screen implementation, Hevlin said. However, now that the 30-day test has been delayed, that comes into conflict with the Corps' original advertisement date for the contract, June 15. It will not be possible to complete the 30-day test prior to June 15. I just wanted to inform the IT that it is likely that SCT will recommend that the contract advertisement be delayed until the completion of the 30-day test period, Hevlin said. That means the schedule for getting the screens installed and functioning prior to the 1999 migration is going to slip; it now appears likely that screen installation will be delayed until the 1999 summer migration period.

In response to a question, Hevlin said that, with the slippage in the testing schedule, the 30-day test will overlap with a portion of the subyearling migration. One concern that has been expressed, he said, is that, because of the timing of the test, we won't get as much information on the effects of the prototype screen on yearling migrants, because we're nearing the end of the yearling migration. In response to another question, Hevlin said the biological monitoring plan includes both gatewell dipping and PIT-tagging some fish, returning them to the gatewell and examining their condition at the downstream smolt monitoring station.

The take-home message is that we're facing another delay in John Day extended-screen implementation, Hevlin said; we're trying to ensure that we're buying something that is both safe for fish and safe structurally, so we're going to take some additional time to ensure that.

Moving on, Hevlin said the SCT has begun its FY'99 capital construction prioritization process. We're going through a ranking process for both implementation items and study items, he said; the SCT representatives are scoring each activity in the FY'99 budget with regard to 13 criteria, developed earlier this year by SCT. Each of the 58 items on the list will be scored for each criteria; each of the criteria has been assigned a weight, relative to one another. For example, total survival benefits to the fish is the criterion that has been assigned the highest weight; if a given item receives a high score in that particular criterion, that would place that item higher in the list of priorities than an item that received a high score in one of the lesser-weighted criterion. The goal is to combine all of the agencies' scores for each of the 58 items in the

budget, to produce a profile of how each item scores against the other items on the list, Hevlin explained. That way, if Congress does not appropriate the full \$117 million the Corps has requested in FY'99, we will have already identified those items that will receive the highest priority for funding.

How much flexibility will you have to address the output from the ISAB report? asked Doug Arndt of COE. I think everyone realizes that we'll have to plug the ISAB's findings in later, Hevlin replied; we have also discussed what to do if people bring items to the table later in the process, which happens fairly frequently. There is going to have to be some integration, and when we get there we'll just have to deal with it. In the meantime, he said, we have to keep moving forward.

So in terms of the application of the criteria the SCT developed, will individual members be developing their own rankings, which will later be combined into a composite ranking for each of the 58 items? Brown asked. Or will the group attempt to reach consensus on a ranking for each individual project? The plan at this point is to get a scoring sheet from each SCT participant, and use those to create a profile, Hevlin replied. However, we will have a record of the relative score assigned to each item on the list by each of the participating entities. Brown said that, having participated in that type of ranking process before, in his experience, what often occurs is that many of the projects fall somewhere in the middle; he suggested that the SCT develop a mechanism to identify where there are real differences of opinion about the priority of a given item, rather than simply assuming that an average score will produce a clear ranking and priority. Howard Schaller suggested that one way to do this would be to identify the projects with the biggest disparity in rankings.

F. Decision Process Coordinating Group. No DPCG update was presented at today's meeting.

III. PATH Update on Schedule and Weight of Evidence.

PATH coordinator Dave Marmorek referred the IT's attention to Enclosure D, a memorandum in response to the IT's directive that PATH develop a process for assigning weights to the alternative hypotheses described in the preliminary decision analysis for spring/summer chinook. This document is intended as an update both on the status of that weight of evidence development process, and on PATH's revised schedule.

Marmorek spent a few minutes going through this document, beginning with schedule (see pages 2-3 of Enclosure D for details). The bottom line: PATH will provide DREW with the preliminary fall chinook output they require by July 15, but will not complete a detailed fall chinook report until the end of October, which will then be integrated together with the spring/summer chinook and steelhead analyses.

On the weight of evidence front, Marmorek reminded the IT that, at its last meeting, there was general agreement that the IT would support an extension of \$40,700 to the PATH budget, to cover extra time for the Scientific Review Panel members and decision analysis specialists involved in the weight of evidence panels. Marmorek said that, subsequent to the meeting, Brian Brown had written a letter in support of this initiative to CBFWA and the Power Planning Council. The PATH budget extension has been approved by CBFWA, and is awaiting Council

approval. Marmorek also distributed a detailed description of the weight of evidence process being developed by PATH; this description is included in Enclosure D.

According to this schedule, said Doug Arndt, it looks like you'll be completing the weight of evidence work about the same time you're completing your fall chinook work. In other words, it doesn't look like your fall chinook analysis will include enough time to apply the weight of evidence process to that species. We will incorporate the fall chinook information, to some degree, in the weight of evidence process, Marmorek replied. However, it will not be nearly as complete as that process will be for spring/summer chinook.

On steelhead, is it fair to say that the only work PATH will be doing this year is the work that has already been completed in support of the 1998 steelhead Biological Opinion? Brown asked. Yes, that's correct, Marmorek replied. Has PATH had an opportunity to look at the provisions in the 1998 supplemental BiOp that discuss additional work to be completed on steelhead over the next two years? Brown asked. The PATH steelhead group did talk about that, Howard Schaller replied – I guess what we're going to need is some priorities from IT, because we are not going to be able to complete our spring/summer and fall chinook analyses on the Corps' schedule, and do our steelhead analysis, by this fall. I think most of the additional work on steelhead will occur over the winter of 1998/99, Schaller said.

The group spent a few minutes discussing the list of alternative management actions PATH will be modeling in its spring/summer chinook analysis in August and September. At this point, the list includes alternatives A1, A2, A3 and B1; it may also include alternatives A2', A5 and A6, if time allows. Marmorek cautioned that PATH is on a very, very tight analytical schedule; it will probably be necessary to prioritize these alternatives, he said, because I don't think we're going to be able to complete all of these. For example, Marmorek said, I would assume that A2' and A6 would be higher priorities than A5. It was observed that the discussion of precisely what will be included under alternatives A5 and A6 is still ongoing, while the parameters of alternative A2' are well-established.

Moving on, Marmorek spent a few minutes going through the description of the weight of evidence process included in Enclosure D. Have steps 1 through 5 in the schedule you've included (on page 6 of Enclosure D) been completed? asked Jim Nielsen of WDFW. We're a little behind, but we're close, Marmorek replied – the sensitivity analyses have taken somewhat longer than expected. Will this set back any of the timelines for subsequent work products? Nielsen asked. I don't think so, said Marmorek.

IV. Presentation and Discussion of Draft Dissolved Gas Research Plan.

Mark Schneider of NMFS, co-chairman of the DGT, distributed Enclosure E, the final Dissolved Gas Team Research Report and Plan, dated March 29, 1998. He spent a few minutes going through the background of the plan, and the DGT's efforts to coordinate the development of this document with a related assignment from the Council to CBFWA, so that a single dissolved gas research plan was the end result. This document (Enclosure E) is that unified plan, Schneider explained.

The DGT's assignment was to summarize the information that is available to inform both long-

term and short-term decisions, to assess the quality of that information, to identify remaining information needs, and to develop a research, monitoring and evaluation plan that would produce the required information, Schneider continued. The DGT recognized that this assignment would yield a plan that would rely on the identification of both near-term and long-term objectives, he said; while those near-term objectives were fairly clear – mainly management objectives established in response to the Biological Opinion – the long-term objectives were more problematic.

The long-term objective, in the simplest terms, is gas abatement, Schneider said. However, the approach under which we would achieve long-term gas abatement, and the management decisions supporting whatever approach is chosen – were unclear to the DGT. We've talked about that at previous IT meetings, he continued; the problem lies in the fact that the DGT is a technical team, and is not prepared or equipped to make the kinds of policy decisions necessary to develop such a long-term plan. The way we approached the assignment, then, was to define two of the most likely management approaches, Schneider explained.

Approach A is essentially the one defined by the Corps of Engineers – to reduce dissolved gas to the extent economically, technically and biologically feasible, Schneider explained. Approach B is to reduce dissolved gas to meet the 110% water quality standard.

Schneider continued on through Enclosure E, touching on near-term research needs, long-term research needs and conclusions (please see Enclosure E for details of his presentation). The DGT's conclusion is as follows:

“There are undoubtedly many other long-term potential research pathways. Nonetheless, a biological research program cannot be developed for the long term until the policy decision makers establish a long-term goal for the gas abatement program....The issue of water quality and the effects of the FCRPS are broader issues that should be addressed in a larger arena... Until a management direction regarding the implementation of water quality standards is established, there is no additional need for research regarding biological assumptions relating to the effects of gas bubble disease in salmon and steelhead.”

Do the Fish Passage Center's comments in the report represent the views of the states? asked Arndt – I don't see any comments from the individual states, he said. I don't know the answer to that question, Schneider replied; all I can tell you is that I didn't receive any comments from the states. I think that, in part, the Fish Passage Center's comments reflect their own views, and in part, they represent the views of the various states involved in the process, said Nielsen. However, they are not intended as a consensus document from the states. Is it fair to say that the recommendations in the near-term research section represent a DGT consensus? Arndt asked. Pretty much, Schneider replied, although there is some disagreement about some of the details.

The discussion moved on to the policy issues inherent in the DGT report; Collis asked whether there is agreement that it is the IT's responsibility to answer the policy question about the goal of the long-term research program. I think policy guidance is what is required, said BPA's Dan Daley, but I'm not sure we can provide that guidance today.

Isn't it true that the management questions the DGT has identified for Approach B – what are

the structural engineering alternatives and FCRPS configurations available to reduce dissolved gas levels at each project, what gas levels are reached with these structural and configurational alternatives and to what degree are fish physically injured by each of these structural alternatives and configurations – also need to be answered for Approach A? asked Brown. Yes, although in part, they are being addressed by the Corps' Dissolved Gas Abatement Study, Schneider replied. However, no matter what approach we decide to take, we need to know what the structural alternatives are, what gas levels each can be expected to produce, and whether or not they're safe for fish, said Brown. That's correct, Schneider replied.

If the IT or another group is going to address these major questions, said Arndt, I think we need to sharpen the question that is asked. Approach A includes Approach B; the difference is that Approach B does not look at the physiological impacts of gas levels above 110% on fish. The management difference, as I read it, is that Approach B says we're not interested in evaluating the physiological effects of dissolved gas on fish, while Approach A recognizes that that is important information – to me, that's the difference between the two, Arndt said. It sounds to me as though there is agreement that we need to answer those three questions for both alternatives, said Brown. The next question is, do we need to answer any additional questions before we can select from among the viable alternatives that remain after the three questions have been answered? By viable alternatives, I mean those alternatives that produce a positive effect on dissolved gas levels without causing mechanical injury problems, he said. What I'm hearing from the Corps, said Brown, is that they would like to know what biological benefit can be expected from an alternative that reduces TDG to, say, 113%, compared to an alternative that reduces it to 115%; that begs the question of what additional research is needed to provide an answer.

Let me ask again: is there IT agreement that the question asked by the DGT is, first, one of policy guidance – what is the long-term goal of the gas abatement program? Collis asked. Second, is that a question that the IT should resolve? Third, is it a question the IT wants to try to resolve today? I think it obviously is a policy question, said Arndt. My recommendation is that we try to sharpen the actual policy question to be answered, for resolution at a level above the IT. In response to a question from Collis, there was general IT agreement that this is a policy issue and that it can and should be better-defined. However, there was not agreement that it will need to be resolved in a higher policy-level forum.

Let's peel away all of the other layers, said Arndt – what the Corps is asking is, for this effort, the funding justification for which is primarily derived from the Endangered Species Act, is the 110% gas standard in the Clean Water Act appropriate? The fundamental question is, what gas level do we need to recover the fish? said Daley. And that fundamental question is not being answered through this research plan. We understand the arguments in favor of the 110% standard, added Arndt, and although we think the region would probably be well-served if that standard were to be re-examined, if people want to regard the 110% standard as fixed and inviolable, then they're going to have to bring some other funding sources to the table.

Collis asked how the IT would like to proceed with this issue; the next step, from what I've heard today, sounds as though it would be to define the policy choices, and the implications of those choices, for the Executive Committee. If I might, said Nielsen, I think the issue is, should the long-term goal of the gas abatement program be to achieve the 110% water quality standard, or should it be to establish a higher level of TDG as the goal of the program, through

additional biological research?

I guess I'm not very comfortable with the idea of bifurcating this process into something that focuses on the needs of salmon, without regard to the Clean Water Act, said Brown. The Clean Water Act, as presently written and litigated, does not apply to projects in the FCRPS, said Daley. If EPA tries to say that it does, then I'm sure we're going to end up in court. There are ongoing discussions between our most senior policy representatives about the linkage between the Clean Water Act and the ESA, said Arndt. If they determine, at that level, that the 110% standard is the appropriate goal of the gas abatement program, so be it. But we haven't reached that point yet, and until we do, I'm not comfortable saying that I'm going to implement only those alternatives that meet the Clean Water Act standard.

Collis went to the board to attempt to summarize, in writing, the policy question to be resolved:

Long-Term Goal for Gas Abatement:

– Is it the water quality standard? Or is it some higher level than the existing (110%) TDG standard? Should the region consider and implement actions that demonstrate, using biological criteria, recovery of salmon?

The key, to me, is whether we're going to use biological criteria to evaluate whether we do or do not implement a given action, said Arndt. Are we prepared to say that, in the course of establishing the goal for the gas abatement program, we are willing to look at implementing actions that will biologically benefit salmon and aid in recovery, but which may result in gas levels above the 110% TDG standard?

Jim Yost of the Idaho Governor's office observed that the nub of this policy decision is the fact that the amount of funding available for salmon recovery is, as everyone involved in IT knows all too well, finite; the long-term goal of the dissolved gas abatement program has not been established, at the policy level, because there is reluctance, on the part of some in the region, to sacrifice funding for other salmon recovery projects in order to achieve the 110% standard. It is a question of priority, Yost said – what is the biological benefit of making X reduction in TDG for X cost, compared to the biological benefit of other salmon recovery measures we could also be spending money to research and implement? However, if it's going to cost us an enormous amount of time and money to discover the difference in biological benefit between 115% TDG and 113% TDG, then that time and money would be better spent on other recovery measures, said Schaller.

The discussion continued in this vein for some minutes. Ultimately, the IT agreed that the policy question, as framed above, will form the basis of a discussion item on a future IT meeting agenda. One practical question I would like to ask, said Arndt – would the states reject alternatives that showed survival benefits if they resulted in TDG levels above the 110% TDG standard? Speaking strictly for WDFW, not WDOE or the State of Washington, I would say no, we wouldn't object to that, Nielsen replied. Is that Idaho's position as well? Arndt asked. Idaho would want to know how much that alternative was going to cost, replied Yost, and to evaluate it in the context of all of the other projects we have on the table to improve salmon survival. Basically, Idaho is interested in the projects that give us the most bang for our buck, Yost said. If you're asking me, do I want some research to tell me whether there is a difference in biological

benefit between 121% TDG and 117% TDG, because there's a \$50 million cost difference between the two, I would say, yes, that's what I want the research to tell me, Yost said.

I think we can all agree that trying to achieve the 110% Clean Water Act standard is a laudable long-term goal, said Arndt. In the meantime, we're engaged in looking at alternatives that may or may not get us to 110%, based on cost, feasibility and biological effectiveness. What we're really left at, in that case, is a much narrower question, said Arndt: do we really need additional biological research, or can we use some surrogate for the biology, namely, gas level. In other words, we would evaluate alternatives based on the gas levels they produce: 120% vs. 117% vs. 115%, and would accept that as a surrogate for the biology. Some, obviously, would be uncomfortable in accepting that as a surrogate without further biological evaluations, he said, but that is a narrower question. To me, you've just crossed over into a technical question, said Brown, and that's why this keeps getting handed back to us. The point is, I think we can all agree that 110% is a worthy long-term standard; in the meantime, we have a job to do, and the question is, do we need additional biological research in order to do it? said Arndt.

My first comment is that 110% isn't just a worthy standard, it is the standard, said Jim Ruff. My second comment is that the ISAB is going to be reviewing the Corps' DGAS program, in particular, the biological research component of that program, this summer. The Corps and others will be briefing the ISAB on the technical basis and need for that research; we hope to have a report from the ISAB, specifically on this very issue, by the end of the summer, Ruff said. I wanted people to be aware of that.

Brown suggested that, in terms of framing this issue for Executive Committee discussion, it would probably be most appropriate to wait until after the ISAB's report is available. In that case, we're probably talking about an August or September discussion, said Collis. That's correct, Ruff replied.

Getting back to the DGT research plan, said Brown, what I've taken from Mark's presentation is that, in the short term, there are three questions, and that two out of the three have basically been answered. The question that needs some additional research is the effects of TDG levels above 110% on adult fish. In the long term, the DGT has identified three questions for Approach B that apply to Approach A as well. One of those questions has to do with physical injury of fish caused by the various gas abatement alternatives that are under consideration, said Brown; is that something that is going to require additional research? Yes, Schneider replied. So that is two research elements that I think there is general agreement that we need, said Brown. Are there any other research items that need to come before this ISAB review and subsequent referral of the policy question? The development of the complex numerical model, which will attempt to duplicate the exposure history of juveniles and adults, then assign an incremental survival estimate, Nielsen replied. That is research that needs to go forward now? Brown asked. It's research that is in question now, Nielsen replied, and it's one of the things the ISAB is looking at.

So for the purposes of clarity, said Brown, it sounds as though there are only two new gas-related research elements that could conceivably go forward – the assessment of the effects of TDG levels greater than 110% on adult salmonids, and the assessment of the physical effects of some of the structural alternatives on fish. No IT objections were raised to this characterization.

What does the IT expect from the DGT, with respect to moving these two questions along? asked Schneider. Should the adult work and the mechanical injury work proceed? Yes, was the IT's reply. So we should move ahead with fleshing those out? Schneider asked. Yes, was the reply. In terms of the adult research question, you're talking about the question of the adequacy of the adult monitoring program? Nielsen asked. Yes – good clarification, said Schneider. And in terms of process, said Collis, the IT will revisit the question of the long-term goal of the dissolved gas abatement program in late summer or early fall, once the ISAB's report is available.

The discussion then moved on to the recent letter from the salmon managers to Brian Brown, written in response to the IT's discussions of outline possible alternative operations to compensate for the fact that several of the FCRPS storage reservoirs did not achieve their April 30 upper rule curve elevations. At an April 23 conference call, the Bureau of Reclamation proposed an alternative operation under which Grand Coulee would be filled only to elevation 1287 feet, then drafted to 1277 feet over the summer, Nielsen explained; this proposal would have put an additional 240 KAF of water into June, then duplicated the operation called for in the Biological Opinion over the remainder of the summer. At the May 7 IT meeting, Reclamation said they had been unable to achieve consensus among the various interests around Grand Coulee for that operation, and that they wanted to hand it back to the salmon managers, Nielsen said, to see if we could develop a consensus operation among the salmon managers and relevant tribes. We have now done so; that operation is attached to our letter to Brian.

Brown distributed Enclosure F, a letter, dated May 29, from NMFS Regional Director Will Stelle to the Columbia River Inter-Tribal Fish Commission. This response, which was coordinated among the federal agencies, addresses some of the same questions the salmon managers raised in their letter, but leaves some of them unanswered, said Brown. All I can tell you is that we're still working on those unanswered questions, he added.

On the issue of Grand Coulee elevations, particularly the salmon managers' recommendations about non-treaty storage operations, there is some concern on BPA's part that they cannot be implemented, Brown said. We haven't decided yet whether that means we need to develop an alternative to the Grand Coulee operation, or some other summer operation with regard to non-treaty storage, Brown said. Given the fact that Grand Coulee is now being operated near its current maximum flood control elevation of 1287 feet, I think we have a couple of weeks to decide whether to fill that project to 1290 feet by June 30, or whether we want to leave it at 1287 and do something different, such as drafting to 1277 feet over the summer, Brown added.

Why would you not want to refill Grand Coulee by the end of June? Ruff asked. To avoid reducing flows in the last two weeks of June, while that refill was occurring, Nielsen replied.

V. FCRPS Steelhead Biological Opinion.

The steelhead Biological Opinion was signed and distributed on May 14, said Brown. As far as its 1998 operational implications, as I explained at the last meeting, it contains no major surprises. By the time the 1998 BiOp was signed, we had already been implementing the measures it contained, specifically the increased spill levels and the spread-the-risk transport

approach, Brown said. It is a change relative to last year's operation, but it didn't really change the way we were operating the system in 1998, he said.

Brown distributed a document titled "'98 Steelhead Biological Opinion -- Implications Over the Next 12 Months," attached as Enclosure G. This is a list of items that we, or others in the basin, will need to be working on over the next year, Brown said; I wanted to begin to discuss today how we would like to set up processes for coordination in handing out some of these activities. These are items that the action agencies, in their negotiations with NMFS, proposed to do to supplement the existing operation under the 1995 Biological Opinion, Brown explained; it is not intended as an exhaustive list of everything the 1998 BiOp contains. These are activities that we would like to coordinate, through this forum, with the affected entities in the region, he said.

The group spent a few minutes going through the list (see below) and recommending various actions and work assignments:

1. '99 McNary Transport Study. Brown explained the background for this study, which has its roots in concerns about problems identified during the last year fish were transported from McNary (1994), as well as the concern that McNary transport will only increase the already-high proportion of Snake River chinook and steelhead transported. Over the next several months, the Regional Forum needs to design a study that will provide the information we need on McNary transport for Upper Columbia steelhead, in a way that addresses the concern about the high proportion of Snake River fish being transported, Brown said. As senior managers, you are the ones who will need to decide whether, and if so, how, your agencies want to participate in the implementation of this measure, he said.

After some minutes of discussion, it was suggested that an ad hoc committee, consisting of technical representatives from NMFS, IDFG, WDFW, ODFW, CRITFC and possibly BPA and the Fish and Wildlife Service, be formed to develop a preliminary design proposal for a 1999 McNary transport study focused on Upper Columbia steelhead, for submission to the Corps' Studies Review Work Group in July. If such a study is going to be funded in FY'99, it does need to get into the hopper quickly, Arndt observed.

2. '99 John Day 24-Hour Spill Study: Arndt said this study is already being discussed by AFEP; it will be submitted to the SRWG for discussion at its July study review. In response to a question, he said he is not sure who is actually developing the study proposal.

3. Lower Columbia Feasibility Study: Brown explained that this study is roughly equivalent to the Corps' Lower Snake River Feasibility Study, and is intended to address a roughly parallel set of issues in the Lower Columbia River. I believe we're on track to produce a scoping document for this study by October, said Arndt. In response to a question, Brown said this study is intended as a review of all available alternatives for the four Lower Columbia projects over the long term, encompassing surface collection, drawdown, increased spill, gas abatement etc. The intent is to produce a scope of work as soon as possible, so that we can get it into the SCT funding prioritization process, observed one meeting participant.

4. Reservoir Risk Assessment: This is basically intended as a more intensive look at the effects of reservoir drafts, said Brown, and whether reservoir draft points other than the ones identified

in the 1995 Biological Opinion should be considered to address concerns that we may be taking either too little or too much water from the storage reservoirs. Arndt said that, given current funding constraints in the region, this study may receive a lower priority than some of the other items on Brown's list. It may be appropriate to seek BPA or even Bureau of Reclamation funding for this study, Brown observed; all I can tell you is that the study was recommended in the comments on the draft Biological Opinion, but it is not currently represented in either the Corps or Bonneville funding priorities.

5. Comprehensive Review of Trucks vs. Barges: Arndt said the Corps has committed to doing this review, but has not yet given much thought to how it should be done. Brown asked Nielsen to discuss this review with FPAC; what I would like to see is the salmon managers working together with the Corps to develop an assessment of the available information, Brown said. Arndt said he would ask Dave Hurson of COE's Walla Walla District to contact Nielsen directly, to wrestle with the details of how to begin this assessment.

6. Analytical Techniques and Data on Biological Requirements for Steelhead: Brown said this item refers to PATH's development of additional information on steelhead; given the fullness of PATH's current schedule, this is something that will need to be reconciled in PATH's work plan for 1999 and beyond.

Enclosure G also includes a list of the numerous scoping reports due in the next 12 months; this is not intended as an all-inclusive list, said Brown, but we would like to ensure that the highest-profile items on the list get underway as soon as possible, and to alert people that there are a lot of scoping reports called for in the 1998 BiOp.

VI. Update on Consultations.

My intent with this item is simply to update people on the status of these consultation, because IT is the forum NMFS wants to use for the coordination of consultations affecting mainstem activities, Brown said. There are several consultations that are either currently underway or will soon get underway, he explained, and I wanted to be sure everyone is aware of them.

A. Hells Canyon Conferences. Brown distributed Enclosure H, a letter from NMFS to David Boergers of FERC, dated May 26, summarizing the status of the ESA consultation on operation of the Hells Canyon Complex between NMFS and the Idaho Power Company. The letter includes a schedule for the completion of these consultations, as well as NMFS' operational expectations at Hells Canyon in 1998 (please see Enclosure H for details). This letter was just sent out, said Brown, and we have not yet had an opportunity to discuss it with either Idaho Power or FERC. He added that IPC is developing a Biological Assessment, which will be submitted to FERC; FERC will then submit the BA to NMFS to initiate formal consultation.

B. USBR Upper Snake River. On the subject of Upper Snake River operations, Brown continued, NMFS has received a Biological Assessment from the Bureau of Reclamation on the Upper Snake projects; our intent is to enter into a formal consultation with the Bureau on the operation of those projects, specifically with regard to how they contribute to the 1995 Biological Opinion.

C. Mid-Columbia Interim Protection Plan. As most of you know, there have been a series of

discussions concerning a habitat conservation plan over the past several years, said Brown; at some point, the plan will be released for public comment, and will be subject to a NEPA process prior to a final decision and ruling from NMFS on whether or not to issue a Section 10 permit. The interim protection plan includes Biological Assessments on operations while that habitat conservation plan continues through that process, Brown explained. To date, FERC has produced Biological Assessments on Wells, Rocky Reach and Rock Island Dams; we don't yet have final BAs on the two Grant County projects.

D. Sturgeon. Bob Hallock of the Fish and Wildlife Service said that, recently, a group from USFWS, NMFS, the Corps, BPA and USBR met in Boise to develop a strategy for how to proceed with the sturgeon consultations, and how to cover the legal requirements expeditiously. Several actions were discussed, Hallock said; of primary interest to the IT are those discussed for the FCRPS. What we're proposing at this time is to develop small groups to work on the FCRPS, the Umatilla, the Upper Snake and other systems in a multi-species context; we're looking at trying to identify any biological affects, as well as potential conflicts between water uses anywhere in the basin. It's a streamlining process, in other words, Hallock said. We're hoping to roll smoothly into a Biological Opinion on Upper Columbia spring chinook, Mid-Columbia steelhead, chum and Lower Columbia chinook, by March 1999; we're also hoping to incorporate re-initiation on sturgeon into this process, due to the availability of new information, and because we have changed conditions at several projects. The bottom line, Hallock said, is that we are going to form these teams with the action agencies, in an effort to expedite the entire process.

E. Proposed Species (Bull trout, Upper Columbia spring chinook, Mid-Columbia steelhead, Lower Columbia chinook, Lower Columbia chum, Deschutes River component of Snake River fall chinook). I'm not going to go through this list one by one, said Brown, but as most of you are aware, there are several additional species that have been proposed for listing; by March 1999, NMFS is due to make a final determination. A letter addressing these proposed species and the multi-species approach was sent out on Monday, Brown said; copies of the letter have been sent to the IT membership as well. In response to a question, Brown said this list represents only those species that have been proposed for listing to date; it is fair to assume that the list may grow longer before all is said and done.

VII. Presentation on Multi-Species Framework Approach.

Tom Cooney of NMFS and Chip McConnaha of the Council staff provided an overview of the status of the Columbia River multi-species planning effort; they worked from a series of overheads, which are attached as Enclosure I. These overheads are self-explanatory; please see Enclosure I for details of this presentation.

In general, the multi-species effort is still in its formative stages, but it's starting to gather quite a bit of momentum, Cooney said; the idea is to develop a more integrated framework for addressing Columbia River fish and wildlife problems. Cooney touched on the origins of the multi-species planning effort, its potential applications, features and approach, the development of an associated Biological Assessment, policy alternatives and biological analyses, the formation of a multi-species science team, their initial tasks and a draft schedule for the multi-species framework development effort:

1. Establish science team: July 15, 1998
2. Establish policy process: July 15, 1998
3. Draft ecological overview: Sept. 1, 1998
4. Initial alternatives: September 30, 1998
5. Alternatives assessment: December 1, 1998
6. Update alternatives
7. Alternatives assessment II.

One concern, said Arndt – many of our actions are driven by specific listings, which occur in specific areas. A holistic approach may not do us much good if the attorneys, and the processes that flow from them, say we have to implement certain actions to recover certain species. It could be that if we have recovery plans rolled into this process, and we can point to these recovery plans and how they're addressing the needs of all species, that might be feasible, said Arndt. This is broader than simply the ESA, said Cooney – it's intended to give the region an opportunity to put all policy alternatives on the table. The idea is to promote a dialogue which, ultimately, will yield a package the region can support, which meets the needs of as many species as possible.

In general, he added, this is not an effort to re-do the work that has been ongoing in the region, through PATH and other bodies – it's an attempt to build on their efforts, and to develop a basinwide assessment from a fish and wildlife perspective, something that has been missing, up until now.

Would it be possible to get regular updates on the activities of the multi-species approach development team on a regular basis? Arndt asked. Yes, McConnaha replied. One comment, said Schaller – although this is ostensibly a multi-species approach, I didn't see anything relating to wildlife in your presentation – I think that may be an area you'll want to give some more attention. We have been talking to some wildlife biologists about how to introduce more balance, said Cooney. Good point, McConnaha agreed.

In looking at your presentation, I get the impression that your expectation is that some type of policy-level group is going to develop alternatives that will be scoped through the multi-species process, said Daley. That's correct, Cooney replied. Is it fair to say that socioeconomic input is going to be the check and balance that determines whether a given alternative is feasible or acceptable? Daley asked. There needs to be some way for the policy leaders in the region, who will be using the results of this process, to say, here are some sideboards for how policy actions are developed for consideration in this process, Cooney replied. The idea behind the socioeconomic input box is to ensure that there is some objective way of informing a description of a policy alternative.

In response to another question from Daley, Cooney said it is the group's intent to draw heavily on the outputs of PATH and the System Operational Review, rather than trying to re-invent the

wheel.

VIII. TMT Process.

As some of you are aware, said Brown, I've been talking to people about the TMT process since we've moved into the 1998 in-season management period; I've heard a lot of the same issues, connected with TMT, that have been raised in years past. Basically, there seems to be a general lack of satisfaction with the TMT process, centered on the way issues are addressed, decisions are made and the purposes that have been outlined for the TMT are, or are not, achieved. Various suggestions about how the process might be changed have been put forward, Brown said; at a meeting a few weeks ago between the various Regional Forum chairs and Donna Silverberg, the new lead Regional Forum facilitator, we discussed the TMT process, and the potential role of facilitation in that process.

What we think would be most appropriate at this point, said Brown, is to stand back, at least for the next several weeks, and let the facilitators engage in the TMT process within the existing structure. After that, I would like to sit down once again with the facilitators and the Regional Forum chairs, to consider whether structural changes are needed within the TMT process, Brown said. I think that's a valid approach, and would support that, said Nielsen.

IX. Discussion of July Executive Committee Agenda.

Brown distributed a list of potential agenda items for the next meeting of the Executive Committee, tentatively scheduled for July 29. The first question is, do we need an Executive Committee meeting in July, said Brown; the second question is, what items do they need to discuss at that meeting, and the third question is, do we need to schedule a second IT meeting in July to prepare for the EC meeting? After a few minutes of discussion, a decision on whether or not to move forward with the July EC meeting was deferred; it was agreed that the various IT participants will confer with their policy leaders about the need for such a meeting, and contact John Palensky by June 10. If the decision is made to proceed with the meeting, Brown said, we'll send out a notification, together with a list of potential agenda items

X. Next IT Meeting Date and Agenda Items.

The next meeting of the Implementation Team was set for Thursday, July 9, at NMFS' Portland offices. Meeting notes prepared by Jeff Kuechle, BPA contractor.