NORTHWEST POWER PLANNING COUNCIL

SUITE 200 • 700 S.W. TAYLOR STREET
PORTLAND, OREGON 97205 • (503) 222-5161

Toll free number for Idaho, Montana & Washington: 1-800-222-3355
Toll free number for Oregon: 1-800-452-2324

June 4, 1984

MEMORANDUM

TO: Larry Mills, Chairman
Keith Colbo
Roy Hemmingway
Kai Lee

FROM: Jan Chrisman JC

SUBJECT: Future meetings

Because of the Power 4's scheduling of water budget sessions, the dates and times for the Fish 4 meetings must be changed as follows:

1. Friday, June 8, 9 a.m.:

   Fish 4 meeting, to discuss goals study with Council's technical advisor (contractor). If you cannot attend, please consider asking the other Council member from your state to attend. A copy of the latest contractor report is attached.

2. Friday, June 8, 1:30 p.m.:

   Staff briefing on water budget (to be attended by Godard, Lee, Mills, Mueller).

3. Thursday, June 14, 9 a.m.:

   Water budget consultation (to be attended by Godard, Lee, Mills, Mueller).

4. Thursday, June 14, 1:30 p.m.:

   Fish 4 meeting to discuss the following:

   - June 27-28 Council meeting
   - Yakima enhancement strategy
   - Wildlife status reviews
   - Costs contract
   - Division workplan
   - Comment period on amendments (consultation scheduling, ex parte rules, etc.)
   - Other (Forest Service tour, etc.)

Attachment

cc: w/attachment

Collins	Mueller	Fish & Wildlife Staff	Mahar
Godard	Saxvik	Sheets	Balfour

ATTACHMENT

M E M O R A N D U M

May 16, 1984

TO: Dr. R.R. Whitney

FROM: Steven T. White

SUBJECT: 201 Technical Work Group Meeting, May 11, 1984

The fifth meeting of the 201 Technical Work Group was held at the Columbia River Inter-Tribal Fish Commission (CRITFC) in Portland, Oregon, on May 11, 1984, beginning at 9:00 a.m.

Technical Work Group members, staff and observer in attendance:

Torian Donohoe, Staff
Stan Detering, Bonneville Power Administration
Bob Thompson, Oregon Dept. Fish and Wildlife
Jack Rensel, Yakima Indian Nation
Ed Weiss, PNUCC (Ex-officio Member)
Fred Olney, U.S. Fish and Wildlife Service
Al Scholtz, U-Cut Tribes
Ray Hilborn, Umatilla Tribe
Dan Fender, Yakima Indian Nation
Bill Zook, Washington Department of Fisheries
Bruce Eddy, PNUCC (Ex-officio Member)
Steven T. White

I. Meeting Agenda

I. Agenda - Revisions/Additions

II. Presentation of Outlines

A. Natural Production - Hilborn

B. Calculation of Hydropower Debt - Hilborn

i) Losses below Bonneville - Zook/Thompson

ii) Process for reaching agreement - Olney

C. Crediting - Weiss

D. Artificial Production Potential - Zook

E. Limiting Factors - Rensel, Fender, Thompson

F. Compensation and Mitigation Plan/Cost Estimation - Scholz

III. Plenary Group Agenda

A. Points of clarification - Donohoe.

II. Presentations

A. Natural Production

Ray Hilborn presented an outline of a model to inventory natural production (see Handout No. 1). The model was initially discussed at the meeting held May 4. Hilborn noted that the definition of significant river basins and stocks (Item 1 on Handout #1) was based on Tables 1 and 2 (see Handout #2) from Bill Zook's outline for estimating artificial production potential for the Columbia River.

Hilborn said that a compilation of habitat inventory would concentrate on spawning area and rearing area (capacity). For chinook, coho and steelhead this would concern the normal area under discussion (i.e., River Basin Network); for sockeye, lake habitat would be inventoried; and for chum, little if any time would be necessary to inventory habitat.

The Technical Work Group was concerned regarding methods for measuring habitat. Their overall goal is to provide general guidelines for determining and defining spawning area and rearing area. A suggestion was made to provide criteria for undertaking estimates related to production/unit area for management, and using the same methods in Phases I and II. Several questions raised during this discussion were: (1) Is it possible, within the limits of time, to assess with certainty the main stem spawning and rearing potential? (2) Can the data generated be applied on a basin-wide basis? (3) Since the majority of methods for determining spawning and rearing area have been undertaken in small streams, can this information and methodology be applied for the Columbia River? (4) Should a Phase II work group be assigned to review the literature and determine a method for standardizing spawning and rearing area, and then request approval of this method from the Plenary Group?

Further discussions of this topic dealt with who should be assigned to do the study in Phase II. The Work Group agreed that whoever develops the methodology must request approval from the Plenary before it is instituted. Zook acknowledged that any method would be highly subjective, and therefore must be reviewed and approved by the Plenary.

The particularly relevant question of how and who will determine what is the best method was discussed at length. Olney suggested that a Technical Overview Committee should be established with representatives from each agency, tribe and council to provide an open forum for methodology and technical review. The Work Group agreed that it was imperative that all interested parties agree on the methodology because if a specific methodology

is not firmly decided upon, results will be questioned and the Power Council will have reason to reject any and all findings. The Work Group also realized that agreement on approach or method does not necessarily guarantee agreement on results.

The discussion on determining an acceptable methodology for assessing spawning and rearing area resulted in submission of a three-step process:

1. Convene a Technical Work Group to review methods;

2. Return to Plenary for input and approval; and

3. Do actual work.

Fred Olney and Bill Zook felt returning to the Plenary for input and approval was not necessary because the Technical Work Group represents the policy of the Plenary. Both did agree however that it was important that all interested parties should be aware of the process and the reasons for it, tribal representatives felt that the tribes would want to establish their own technical groups who would work with a 201 Technical Group. Some concern was voiced over forming yet another group, suggesting this would only add an additional step in an already long and involved process.

Natural production potential (Item 7, Handout 1) was discussed as possibly not being a realistic achievable goal. The Work Group felt that potential production assumes optimum seeding, but even with optimum seeding, other limiting factors (such as, disease, genetics and species interactions) determine the realistic figures. Thus, natural production potential must be based on optimal seeding with the knowledge that limiting factors will reduce the final production; although it may be impossible to quantify the impact of the limiting factors.

The final result of the above would be an inventory of natural production for:

1. Adult production;

2. Harvestable production; and

3. Optimum seeding levels (theoretical) basin-by-basin.

This information would be supplemented with an Appendix which would qualitatively list the limiting factors which could reduce potential production under any given number of situations within each basin (i.e., with and without natural blockages). If natural blockages are found to be significant, it may be necessary to determine the potential production in the absence of the blockage. Questions were raised whether potential production above barriers should be

included in present potential production or in future potential production estimates. In either case, the area above barriers should be included in mitigation opportunities.

The stated overall goal of the Work Group is to provide a catalog of opportunities for mitigation, which includes natural and artificial production.

Determination of losses (habitat). The Work Group discussed methods for determining habitat losses and they developed a three-step process:

1. Determination of original habitat complement, based on pristine or undisturbed (e.g., no dams) conditions and then estimate production potential;

2. Development of a table of losses over time, on a basin-by-basin stepwise fashion as dams were constructed. Included in this estimate are other habitat losses due to logging, irrigation, etc. If possible separate hydro vs non-hydro losses; and

3. Include estimates of ocean harvest.

If this process is successful, hydro debt can be defined as the difference between what exists at present vs what total production could have been without hydro-dams.

The Work Group was somewhat concerned as to what their efforts would be compensating for, and they decided to approach the Plenary for clarification. For instance, is compensation for (1) current lost harvest; or (2) optimum (properly managed) harvestable surplus? Further discussion centered on apportionment responsibility per dam (i.e., 50% irrigation, 50% hydropower). The group felt that they need a consistent methodology for apportionment. Most dams have apportionments spelled out by enabling legislation and the federal projects clearly document the purposes of the dam and percentage of use. However, some members felt that they may need to negotiate apportionment on a dam-by-dam basis because, since initial construction, each dam may have changed original percentages of use and/or other policies.

STATUS - Hilborn will present a draft of Phase I materials for natural production/hydro power losses at the May 22 meeting.

B. Processing for Reaching Agreement (Handout #3)

1. Below Bonneville Dam. Thompson presented the Oregon view for mitigation below Bonneville. In general, there is not complete agreement on losses below Bonneville and some compensation will be necessary for several hydro projects. Zook presented the Washington view. Agreements have been negotiated for mitigation below Bonneville and Washington State Fisheries believes that they have or will be fully mitigated for losses.

The Work Group felt it would be necessary to compile all existing agreements (identified in Phase I) to determine whether additional technical information is needed for below Bonneville losses. Also, it was considered important to list and provide information where a mitigation agreement doesn't exist. Through this format the group would be able to approach the question; does mitigation facility provide full compensation, and if not, what future compensation will be necessary, given existing FERC processes and any other agreements.

Thompson presented a brief outline on losses due to hydropower below Bonneville (Handout #4). Thompson felt that it may be necessary in Phase II to study losses below Bonneville with the same intensity as other systems, especially in Oregon. Within the framework of the 201 Technical Group, further study will be undertaken to determine if these systems are currently under negotiation for mitigation for losses. If unmitigated, losses below Bonneville will become part of the balance sheet of the technical group (with application of system potential production and limiting factors) and necessitate determination of the debt owed to Oregon.

2. Main stem dams. Fred Olney presented a brief outline of the problems and methodology for assessing losses due to main stem dams (see Handout #3).

3. Upriver losses due to blackages. Discussion on this topic focused on apportionment problems. Since this area (upriver losses) contains the least amount of data for determining losses the group felt it would be necessary to establish a policy group (yet another group!) which would attempt to reach ageement on losses using available technical information, with input from all interested parties. The Apportionment Study Group would be part of Phase II and would be responsible for undertaking the following:

i) Review of enabling legislation;

ii) The Technical Group would develop numbers for losses; and

iii) A third party would explore ranges in losses.

There was little agreement on how the Phase II group should be established and on how it should proceed. Scholtz suggested the following process: (1) Plenary Group - all interested parties, they would select a technical work group; (2) Technical Work Group would include all agencies plus tribes; and (3) a Final Review Group (third party) would evaluate the findings of the Technical Work Group. Dan Fender suggested: (1) Plenary Group - all interested parties, they would select a Technical Work Group made up of a third party; (2) Third party would do actual work; and (3) findings from third party then evaluated by Review Committee comprised of all interested parties, including any associated technical teams from the tribes.

The Work Group felt it was imperative that the agencies and tribes agree on the above because total agreement by all parties would make it difficult for the Power Council to ignore their findings. Thus, the 201 Technical Work Group decided that their task was to (1) establish the role of the third party; (2) expedite agreement by all parties on a third party; and (3) establish the quality of the third party.

C. Crediting

Ed Weiss presented a brief outline defining crediting processes and steps for crediting past compensation (i.e., fish ladders, hatcheries).

The group recognized the importance of establishing an accounting system, which will determine what impacts have been compensated for. Further, they recognized that crediting is a social, economic and legal question and each PUD will insist that they receive credit for what has already been accomplished. Crediting on a system-wide basis will be very complex, but crediting on a project-by-project basis may not be practical. Thus the question; should individual projects be held responsible for the remaining debt at their site or for the whole basin, needs further clarification. The general feeling of the group was that most PUD's will be willing to pay for their debt only, and not part of the total system debt, thus credits and losses must be determined for each project.

STATUS - Crediting will be re-developed by Weiss and will be available at a later date.

D. Artificial Production (Handout #2)

Zook discussed the Kramer Chin and Mayo (KCM) Study, which is being conducted under Section 700 of the Fish and Wildlife Program. The objectives of the KCM Study will be the same as those outlined in Phase 1 of 201.

The Group felt it would be necessary to evaluate artificial production potential below Bonneville Dam for mitigation of uncompensated losses. It was also stressed that artificial production potential should be considered above Grand Coulee and Hell's Canyon Dams if not evaluated in KCM Study.

Zook outlined the basic goals of the artificial production program. They include (1) building new hatcheries; (2) expanding existing facilities; and increasing efficiency at all facilities.

Some concern was raised over the effects of increasing opportunities for natural and artificial production. For instance, how will artificial

production effect natural production efforts, or will it? This is a significant concern because the group is uncertain how habitat improvement will increase production, especially since the methods for habitat improvement are still unresolved (i.e., problems with limiting factors). However, the group feels that natural potential production, through enhancement, may be extremely beneficial and should be seriously considered. (Comment: Habitat rehabilitation is a viable alternative and does merit consideration but it may be very (prohibitively) costly due to the dynamic nature of stream and river systems. It may be necessary to continue rehabilitation efforts for years on some systems before any return of investment can be realized!)

E. Limiting Factors (Handouts #5 and #6)

Fender/Rensel/Thompson presented draft outlines of biological limiting factors (BLF) which may limit production potential. BLF's include disease, genetics and species interactions. These factors were discussed and suggestions were made to apply these factors only to future production potential.

The Group decided to try and quantify as many limiting factors as possible with an extensive literature search, and at the same time they will employ the expertise of local biologists within each basin. The Group also decided to separate the physical/chemical limiting factors from the BLF's.

STATUS: The question of how sensitive should the quantitative numbers for limiting factors be was left unresolved.

F. Compensation and Mitigation Plan/Cost Estimation

Al Scholtz discussed the approach for addressing Framework Tasks III and IV (see Handout #7). He said that Item 2-b is of particular concern because at present it is not clear how each agency and tribe perceives its respective role in Phase II and this must be cleared up to avoid duplication of effort. Scholtz added that, in terms of Item #2-c, the Work Group should have a process on-line and running to put in place after the completion of Tasks I and II.

STATUS: Scholtz will present an updated version of compensation and mitigation plan for a later meeting.

III. Plenary Group Agenda

A. Points of Clarification.

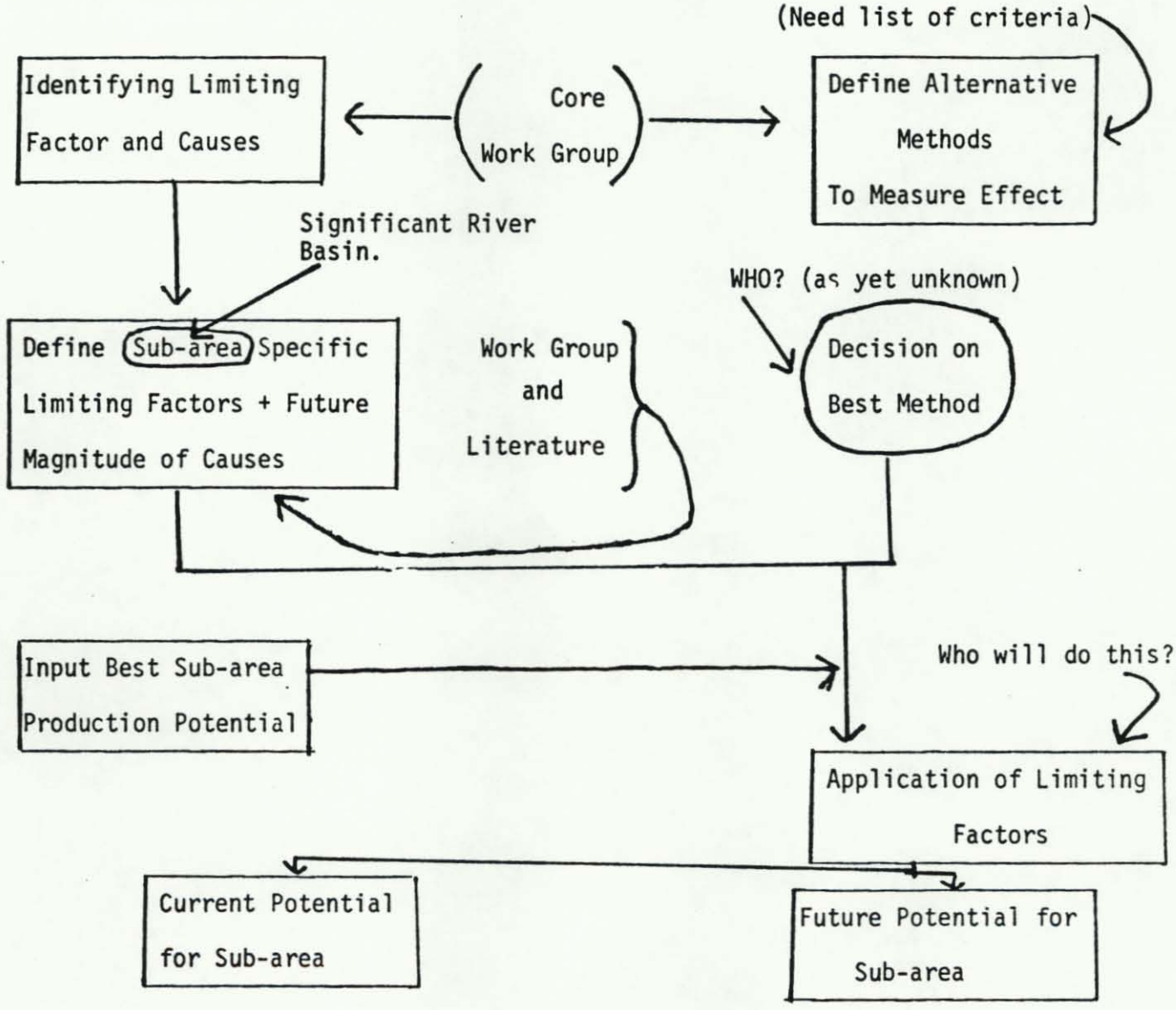
Torian Donohoe discussed the objectives of the Plenary Session to be held in Spokane on May 18. She submitted a list of five questions (see Handout #8), which the Technical Group reviewed, that would be addressed at the Plenary meeting. Question #3 was deferred until the June 7 meeting. An additional question raised by the Technical Work Group was Who will be in overall charge of Phase II?

IV. Next Meeting

The next meeting (Plenary Session) will be held in Spokane on Friday, May 18, 1984, at 10:00 a.m.

STW:jc:5/17/84

Dan Fender presented a flow chart for identifying limiting factors and incorporating them into estimates of current and future potential production:



The Group is very concerned as to what limiting factors should be considered and what should be left out. Also, they have concerns about what needs to be quantified and/or what can indeed be quantified.