



1987

Columbia River Basin

**Fish and
Wildlife
Program**

Appendix C

February 11, 1987

Part 1: Council Response to Comments

Part 2: Rationale for Rejections

NORTHWEST POWER PLANNING COUNCIL

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APPENDIX C

Response to Comments on the 1986 Draft Amendment Document and Rationale for Rejections

APPENDIX C

Introduction

The Northwest Power Act, 16 U.S.C. 839, calls on the Northwest Power Planning Council to develop and revise the Columbia River Basin Fish and Wildlife Program by seeking recommendations from fish and wildlife agencies, Indian tribes, water management agencies, electric power-producing agencies and customers, and the public. The program is to be based on those recommendations, supporting documents, and on views and information obtained through public comment and participation and consultation with the fish and wildlife agencies, tribes and power entities.

The Northwest Power Act directed the Council to:

- Begin the program development and amendment process by soliciting recommendations;
- Make the recommendations available for review by the public, the Bonneville Power Administration and its customers, fish and wildlife agencies, appropriate Indian tribes, federal agencies and electric utilities which manage, operate or regulate hydroelectric facilities in the Columbia River Basin;
- Provide for oral and written public comment on the recommendations; and
- Reject a recommendation only if it finds, in writing, that the recommendation would be inconsistent with specific statutory standards.

First adopted in 1982, the fish and wildlife program was last opened for major review in 1985, with recommendations for amendment due in February 1986. By statute, the Council must adopt a new program within one year after the deadline for submitting recommendations. In September 1986, the Council released for public comment a Draft Amendment Document (DAD) describing which recommendations it proposed to adopt. The Council received 178 comments in response to that draft. After reviewing those comments, the Council adopted amendments in February 1987, which, together with measures from the 1982 and 1984 programs, comprise the 1987 Columbia River Basin Fish and Wildlife Program.

One of the primary purposes of the Northwest Power Act is to provide for public participation in developing the Council's regional energy plan and Columbia River Basin Fish and Wildlife Program. In Section 4(h)(5) of the Act, Congress directed the Council to develop its fish and wildlife program on the basis of "views and information obtained through public comment and participation," as well as on the basis of the program recommendations, supporting documents, and views and information obtained in consultation with certain fish and wildlife agencies, federal project operators and regulators, tribes and Bonneville customers.

The Council set aside two periods for taking written and oral comment on what the revised program should contain. In the first period, which ran from March to August 1986, the Council asked for comments on the program recommendations submitted to it by the February 18, 1986, deadline. The Council analyzed that comment carefully in determining what measures to include in its draft program. In the second comment period, which opened in September 1986 and closed December 15, 1986, the Council requested oral and written comments on its draft program. Many individuals and groups responded with detailed requests for specific changes in the program language, as well as extensive information to support their positions.

The Council found many of the suggestions for improvement of the draft program to be well considered and worth incorporating into the final program. It decided that other suggestions could not or should not be followed because they conflicted with the standards Congress set for the Council's program or for other reasons.

In this document, the Council explains how it addressed the major oral and written comments on its draft program. The Council and its staff have reviewed each comment. Because of the large volume of comments and the time constraints imposed by the statutory requirement of program adoption by February 18, 1987, the Council

has not attempted to respond to each comment individually. Many comments praised the draft program, or particular sections of it, as written. The Council appreciated those comments, but it is unable to list each of them here. Other comments expressed general disapproval of the Council's program without offering specific suggestions for improvement.

A number of individuals and groups made identical or similar points about particular draft program measures. The Council consolidated those comments for purposes of response. The Council made some changes in the draft program based on comments that are not explained here because they simply clarified the Council's original intent, corrected factual or typographical errors, or involved other non-controversial matters. The Council also consolidated some repetitious sections, altered the organization of the program, renumbered sections and otherwise modified the program to make it easier to understand.

In the first part of this appendix, the Council addresses specific comments on individual program sections. In the second part, the Council explains the reasons why it rejected certain applications for amendment of the program. Unless otherwise indicated, the section numbers and titles in the boldfaced summaries of comments refer to the Draft Amendment Document, and section numbers in the responses refer to the 1987 program. For the sake of convenience, names of some of the commenting groups were shortened as follows, unless the text indicates otherwise:

AEI	Automation Engineering, Inc.
ANS	Association of Northwest Steelheaders
AWPPW	Association of Western Pulp and Paper Workers
BLCCEA	Blachly-Lane County Cooperative Electric Association
BLM	U.S. Bureau of Land Management
BMPA	Blue Mountain Cooperative Protection Alliance
Bonneville	Bonneville Power Administration
BOR	U.S. Bureau of Reclamation
CBFWC	Columbia Basin Fish and Wildlife Council (now the Columbia Basin Fish and Wildlife Authority)
Corps	U.S. Army Corps of Engineers
COY	City of Yakima
CPCA	Columbia Power Cooperative Association
CRITFC	Columbia River Inter-Tribal Fish Commission
CSF	Clark-Skamania Flyfishers
EOSC	Eastern Oregon Sportsman Council
FERC	Federal Energy Regulatory Commission
FOE	Friends of the Earth
Grant PUD	Grant County Public Utility District
HEC	Harney Electric Cooperative, Inc.
HREC	Hood River Electric Cooperative
ICA	Idaho Consumer Affairs
Idaho AG	Idaho Attorney General's Office
IDFG	Idaho Department of Fish and Game
IPC	Idaho Power Company
ISSU	Idaho Salmon and Steelhead Unlimited
LREC	Lost River Electric Cooperative
LVPL	Lower Valley Power and Light
MDFWP	Montana Department of Fish, Wildlife and Parks
MDNRC	Montana Department of Natural Resources and Conservation

NCA	National Cattlemen's Association	ShoBans	Shoshone-Bannock Tribes
NMFS	National Marine Fisheries Service	SK	Salish-Kootenai Tribes
NRIC	Northwest Resource Information Center	Tacoma DPU	City of Tacoma Department of Public Utilities
NWF	National Wildlife Federation	UCUT	Upper Columbia United Tribes
OCEC	Okanogan County Electric Cooperative	USFS	U.S. Forest Service
ODFW	Oregon Department of Fish and Wildlife	USFWS	U.S. Fish and Wildlife Service
ORECA	Oregon Rural Electric Cooperative Association	Wasco PUD	Northern Wasco County People's Utility District
OT	Oregon Trout	WDA	Washington State Department of Agriculture
OWF	Oregon Wildlife Federation	WDE	Washington State Department of Ecology
PF	Peregrine Fund	WDF	Washington State Department of Fisheries
PNGC	Pacific Northwest Generating Company	WDG	Washington State Department of Game
PNUCC	Pacific Northwest Utilities Conference Committee	WG	William G. Gray
PPC	Public Power Council	WREC	Wells Rural Electric Company
SCL	Seattle City Light	YIN	Yakima Indian Nation

APPENDIX C

Part 1

Council Response to Comments

SECTION 100: INTRODUCTION

No comments received.

SECTION 200: SALMON AND STEELHEAD FRAMEWORK

Section 201: Salmon and Steelhead Goal (Section 203 in 1987 program)

In February 1985, the Council initiated a process for assessing salmon and steelhead losses attributable to hydropower facilities in the Columbia River Basin and for developing program goals, production objectives and a systemwide framework to address those losses. In March 1986, the Council staff released the Compilation of Information on Salmon and Steelhead Losses in the Columbia River Basin. In June 1986, the Council estimated, in a proposed "statement of hydropower responsibility," that 5 million to 11 million adult salmon and steelhead were lost due to hydropower operations and development. In October 1986, the Council released an issue paper addressing a proposed goal of doubling salmon and steelhead runs and related policies. Because many of the comments addressed below pertain to information released after the Draft Amendment Document, the section references in the Section 200 responses refer to the Final Amendment Document, which was issued shortly after the Council adopted the 1987 program in February.

Section 201(a): Doubling Goal

In October 1986, the Council released an issue paper proposing that the program aim to double existing salmon and steelhead runs as an interim goal.

1. Support of doubling goal. Most commentors supported the proposed goal of doubling the current average run size. They agreed generally that runs cannot be increased significantly without more hatchery production and other new program efforts. The Pacific Northwest Utilities Conference Committee (PNUCC) and most utilities suggested achieving the goal in 10 to 15 years, but gave no reasons why they thought that schedule would be reasonable. The Columbia Basin Fish and Wildlife Council (CBFWC) initially suggested 16 years, but later encouraged a goal without mentioning any time frame.

Council response: The Council adopted a doubling goal, but included no time frame for reaching the goal until after system and subbasin planning are completed, so that more information is available on which to define a realistic schedule. The recommended goal is for the interim and, therefore, it could be changed based on the results of planning.

2. Delay setting goal. Oregon Trout (OT), Trout Unlimited, and Seattle City Light (SCL) suggested waiting to set a goal until after subbasin planning is completed because they argue that the goal should reflect the potential productivity of the basin as determined through subbasin planning.

Council response: The Council believes system planning and coordination, including subbasin planning, require a goal in order to function well. The goal could be changed based on the results of planning.

Section 201(b)(1): Salmon and Steelhead Losses from All Causes

In May 1985, as part of a broad effort to establish a systemwide framework for the program, the Council began compiling information on losses of Columbia River Basin salmon and steelhead from all causes. In September 1985, a draft losses report was circulated for review and comment. A second draft was circulated in December 1985 for review and comment. In March 1986, the Council approved the staff's use of the losses report in estimating the contribution of hydropower development and operation to losses of Columbia River Basin salmon and steelhead. The Draft Amendment Document described the conclusions the Council intended to draw from the losses report.

1. Support for losses statement. The CBFWC, Idaho Department of Fish and Game and others supported the Council's quantification of fish losses. The National Wildlife Federation (NWF) supported the "Council's selection of a range of losses." The NWF also agreed with the Council's approach to Section 200 to provide a framework for "action-forcing decisions," not to attempt to find the elusive "perfect" number. SCL commented that the estimated predevelopment annual run size of 10 million to 16 million fish is reasonable. The Federal Energy Regulatory Commission (FERC) also supported the Council staff's estimate of losses.

Council response: The Council appreciates these comments. The Council regards the process of assessing losses as an important first step in giving the program appropriate direction and scope. By statutory definition, the program is directed at the effects of the hydroelectric facilities. The Council is specifically required to ensure that hydropower ratepayers are held responsible for no more than those effects. [See 16 U.S.C. §839b(h)(5), (8)(B).] This function is particularly important given the potential extent of off-site enhancement projects (i.e., away from the site of hydropower facilities) that could be proposed for ratepayer funding.

At the same time, the Council has been mindful of the dangers of a search for what NWF describes as the "perfect number." The Northwest Power Act calls for an action-oriented program, not a program that is unduly focused on extensive surveys, studies and plans for future action. Accordingly, the Council has sought to avoid spending undue time, resources and funds collecting additional information and developing new methods to answer a question that may never be answered with scientific precision. The Council believes in the importance of estimating basinwide losses and setting goals promptly so that the region can move quickly to achieve those goals, and program implementation will not be delayed.

2. Loss estimate too low. The Shoshone-Bannock Tribes (ShoBans) stated that the estimated loss of 7 million to 14 million fish basinwide is too low. They offered no data to support this comment.

Council response: The Council used the best available information to compute the estimated losses of 7 million to 14 million fish and has no indication that credible information indicating higher losses exists. The ShoBans provided no information that would change the conclusions the Council drew from the losses report.

3. Predevelopment run size estimate too high. PPC stated that predevelopment run size estimates above 10 million fish are difficult to support. The PNGC stated "there simply isn't any scientific evidence to support a number any greater than 10 million fish." The AWPPW, LREC, LVPL, OCEC, Tacoma DPU, HEC, ORECA, CPCA, BLCCEA, and HREC supported these statements. PNUCC and Grant County PUD stated that the predevelopment run size range should be 7 million to 10 million fish and that the high-end estimate has considerably less scientific basis than the low end.

Council response: In their comments on the Draft Amendment Document, these commentors did not indicate why they believe a predevelopment run size estimate of greater than 10 million is unsupported. In comments on draft copies of the losses report, PNUCC suggested that an 80 to 85 percent catch efficiency was more appropriate, for estimating predevelopment run sizes from lower river catch estimates, than 33, 50, or 67 percent catch efficiencies. In light of this comment, the Council used 50, 67, and 80 percent catch efficiencies in developing its range. However, the Council did not rely on one estimated catch efficiency to the exclusion of others. [See losses report, Sections 2.2.4 and 2.5.] The Council has not concluded that any specific point within this range is more reliable than any other, primarily because the data are not precise enough to permit such judgments.

4. Tribal consumption. The ShoBans are concerned that Table 10 of the proposed Technical Appendix D lists annual fish consumption of Bannock, North Paiute, and North Shoshone as "a meager 50 lbs. per person." They stated that a much higher figure is appropriate.

Council response: The commentator provided no information to support its contention. The Council believes that the information compiled in the losses report is the best available.

5. Losses of wild stocks. Friends of the Earth (FOE) commented that the estimated 2.5 million average annual run size improperly masks the true extent of damage done to wild stocks of salmon and steelhead. The Upper Columbia United Tribes (UCUT) stated that the construction of hatcheries below the dams for which they mitigate caused the loss of wild upriver fish runs. They cited, as an example, "construction of hatcheries below Grand Coulee Dam and translocation of upriver fish to these hatcheries has resulted in the loss of genetically programmed upriver stocks."

Council response: The Council recognizes that the character of Columbia River Basin salmon and steelhead runs has changed from exclusively wild to a mix of wild, natural and hatchery fish. This is documented in the losses report and summarized in program Section 200.

6. Information sources. The ShoBans commented that "valuable information" was not sufficiently investigated for losses. They cited information on fish wheels and specific hydropower projects as examples. The ShoBans also commented that mainstem passage mortalities at specific hydroelectric projects should be used instead of average passage mortalities.

Council response: The Council has sought to survey available information, not to conduct extensive new research. Mainstem passage mortalities were not available at all mainstem dams. Where available, information on specific projects was included where useful in arriving at a basinwide losses estimate. The Council has not otherwise sought to identify losses at specific projects for these purposes.

7. Mixed-stock fisheries. CRITFC commented that draft Section 201(d) incorrectly claims that harvest rates in mixed-stock fisheries are governed by the abundance of hatchery-produced fish. It notes that "mixed-stock fisheries are no longer a major constraint to rebuilding most depressed stocks of salmon and steelhead above Bonneville Dam."

Council response: The Council believes that some mixed-stock fishery harvest rates have been based on abundance of hatchery fish in the past. The Council appreciates that the fish and wildlife agencies and tribes have invested substantial time and effort in addressing mixed-stock harvest issues. The Council encourages continuing efforts to manage harvest effectively, as discussed in program Sections 204(e) and 500-503.

8. Non-numerical losses. CRITFC and UCUT emphasized that the tribes' losses included cultural, economic and religious aspects as well as numbers of fish.

Council response: The Council acknowledges this point, which also is reflected in the losses report and the program.

9. Other anadromous fish. The ShoBans commented that the losses report "ignores other anadromous species, in particular white sturgeon, which were heavily impacted by development of hydroelectric capabilities."

Council response: The Council recognizes that hydropower development and operation have affected white sturgeon and other anadromous species. However, for planning purposes, the program treats these species as resident fish (see program Sections 207 and 900-903), and the salmon and steelhead losses report does not address them. The program describes a separate process for ascertaining hydropower impacts on sturgeon. [See Section 903(e)(1).]

Section 201(b)(2): Salmon and Steelhead Hydropower-Related Losses.

In April 1986, the Council released an issue paper entitled "Hydropower Responsibility for Salmon and Steelhead Losses in the Columbia River Basin," which estimated the contribution of the hydropower system to the basin's losses of anadromous fish. The Council received extensive written and oral comment on this issue and

preliminarily estimated in June 1986 that 5 million to 11 million fish was a reasonable range for hydropower-related losses. The following comments were received on the Draft Amendment Document proposal to incorporate the 5 million to 11 million hydropower-related losses range into the program.

1. Support for the range. SCL commented that the 5 million to 11 million estimate was reasonable. CBFWC encouraged the Council to "amend the program to include the assignment of hydropower system responsibility at 5 [million] to 11 million adult salmon and steelhead." The Idaho Attorney General stated that "quantifying hydrosystem responsibility for salmon and steelhead losses within the Columbia Basin is a positive first step toward mitigating the losses." CRITFC applauded the Council's effort in estimating hydropower-caused losses and commented that "it is vital that the Council carry through with this estimation." FERC also agreed with the Council's approach. CRITFC, the Northwest Resource Information Center (NRIC), CBFWC, UCUT and FOE said that the upper end of the range was most supportable. OT and UCUT suggested that the Council adopt 8 million fish as the hydropower system's responsibility.

Council response: The Council appreciates these comments. The Council believes that the data support a 5 million to 11 million range estimate, but has not adopted a point estimate because of uncertainties in the data.

2. Cumulative hydropower-related losses. UCUT staff analysis indicated that "the cumulative past losses are approximately 220 to 250 million salmon and steelhead, of which a minimum of 33 million represent the harvest lost to the tribes above the block at Grand Coulee Dam." CRITFC stated that the "cumulative past losses of about 250 million adult salmon and steelhead" should be addressed.

Council response: The Council has not adopted the cumulative losses approach. It is unknown whether even 5 million to 11 million adult salmon and steelhead can be restored to the basin, let alone enough fish to make an estimate of cumulative losses important.

3. Non-numerical losses. Oregon Trout commented that losses other than numbers of fish have occurred because of hydropower development and operations. It emphasized the loss of genetic material and the need to maintain the genetic viability of the resource. NRIC had similar concerns. FOE commented that the basin has lost wild salmon and steelhead, but has been compensated in hatchery fish. CRITFC and UCUT emphasized that the tribes' losses include cultural and religious aspects as well as numbers of fish.

Council response: The Council recognizes that there have been substantial genetic losses and that the tribes' cultural and religious losses have been incalculable. The Council also understands the unique biological value of wild fish and the problems that have attended hatchery compensation. These losses are discussed in the losses report. The Council has adopted a gene conservation policy for purposes of the salmon and steelhead program. [See Section 204(b).]

4. Method.

a. PNUCC opposed Council adoption of a hydro-related adult fish loss number of 5 million to 11 million or any quantification of hydropower's share of fish losses. It argued that the quality and quantity of data are insufficient, and that any estimate of hydropower-related losses would not be based on the best scientific information. Grant PUD stated a similar concern. The Corps stated that "there is no sound factual basis" for the conclusion that the predevelopment run size approached 16 million fish, that losses from all causes may have reached 14 million fish, or that losses attributable to hydropower may reach 11 million fish. The Corps indicated in consultation that their comments were "for the record" and that they felt Council staff was "providing appropriate caveats" in using the losses information. The LVPL stated that "a more sophisticated approach" for determining hydropower-related losses should be developed. OCEC, ORECA, CPCA, and BLCCEA supported this statement.

Council response: The Council does not advocate spending additional time, effort and funds on developing more sophisticated methods of analysis, because any method will be limited by the quality and quantity of historical data. The Council's analysis has taken nearly two years to complete, not including the time spent by the fish and wildlife agencies and tribes, Bonneville and others in earlier efforts.

The Council's estimate of hydropower-related losses serves two important purposes: to help ensure that consumers of electric power bear the cost of measures designed to deal with adverse impacts caused by the development and operation of electric power facilities only (see 16 U.S.C. §839b(h)(5), (8)(b)), and to provide a further sense of direction and scope to the program. The Council believes that the available data support the estimate, and that additional refinements in data and analysis would not materially change the estimate or further efforts to achieve larger run sizes.

b. CRITFC suggested that the Council's estimates were conservative because they excluded losses in blocked areas other than behind Chief Joseph and Hells Canyon dams. They also suggested the estimates of tribal catch were conservative, and that the failure to account for reduced spawning areas caused by inundation by mainstem dams below Chief Joseph and Hells Canyon made the Council's estimate low. Friends of the Earth and the Bureau of Reclamation said they believe that the data used generally represent the best available scientific knowledge.

Council response: The Council recognizes that its estimate arguably is conservative because of these factors. Nevertheless, the Council has reviewed the record and believes that for purposes of a basinwide estimate, its data for blocked area losses and tribal catch are reasonable. To account for differing interpretations of the data, the Council considered numerous alternative calculations. [See Appendix E: Numerical Estimates of Hydropower-Related Losses for Salmon and Steelhead.] None of the alternatives arrived at an estimate outside the 5 million to 11 million range.

c. Bonneville commented that it would be better to estimate losses of salmon and steelhead "using an analysis comparing existing anadromous fish productivity with the hydroelectric system to the productivity that would exist without the hydroelectric purposes and features of dams on the Columbia River and its tributaries."

Council response: The analysis suggested by Bonneville is one of the methods the Council used to estimate hydropower-related losses.

5. **Percent of loss attributable to dams.** Most hydropower dams are multipurpose and provide benefits for purposes other than hydropower, such as flood control, irrigation, navigation and recreation. CBFWC and Friends of the Earth argued, that without hydropower, the mainstem dams never would have been built, so the losses attributable to hydropower dams should be 100 percent. CBFWC also argued that the dams could be operated to pass fish without affecting the other purposes of the dams, so hydropower production is the only purpose that causes fish losses. They agreed with the use of repayment allocation to represent the percentage of hydropower-related losses for blocked areas. On the other hand, CRITFC and UCUT supported the use of the repayment allocation generally to represent the percentage of hydropower-related losses. Bonneville suggested that the percentage of hydropower-related loss should be determined by the benefits-allocation method. The Corps, PNUCC and BOR supported the joint-cost allocation. The BOR was concerned that use of the repayment formula would be a precedent for wildlife planning.

Council response: The Council estimated hydropower responsibility using three alternatives for determining what percentage of total dam loss should be attributed to hydropower at multipurpose dams: benefits allocation, repayment allocation, and joint-cost allocation. All of these methods result in estimates of hydropower-related losses within the 5 million to 11 million range. The Council does not intend use of the repayment formula to serve as a precedent for wildlife projects. [See Section 1000 responses.]

6. **Losses above Hells Canyon Dam.** The Idaho Power Company (IPC) and PNUCC objected to the assumption that 50 percent of losses above Hells Canyon are hydropower-related. Charles Pace and the ShoBans stated that the 50 percent figure was too small, but provided no alternative.

Council response: The benefits, joint-cost and repayment allocation formulas could not be used above Hells Canyon because most of the projects in that area are non-federal and those methods have been developed only for federally funded projects. For the limited purpose of making a basinwide estimate of hydropower-related losses, the Council assumed that the mainstem Snake River dams are

primarily hydropower dams, and the numerous large tributary dams are non-hydropower.

7. **Hydropower-related losses and relationship to production planning.**

a. Idaho Salmon and Steelhead Unlimited (ISSU) stated "it is our understanding the Council is responsible for the ultimate replacement to between 5 [million] and 11 million fish lost due to hydro development." PNUCC and PPC commented that the Northwest Power Act does not require full replacement of losses, yet setting "a loss estimate for hydropower responsibility" implies such an obligation. Tacoma DPU, HREC and Wasco PUD stated similar concerns. SCL commented that while the hydropower responsibility estimate is reasonable, "it is neither feasible nor appropriate ... to be considered as [an] obligation or goal for restoration." PNUCC requested that the term "hydropower responsibility" be stricken from the program and replaced with the term "hydropower-related losses."

Council response: The Council has replaced the term "hydropower responsibility" with "hydropower-related losses." Hydropower-related losses are not intended to represent an absolute obligation to replace the number of fish lost. The Council recognizes that it may never be possible to address all hydropower-related losses consistent within the requirements of the Northwest Power Act. [See 16 U.S.C. §839b(h)(5)-(6).]

b. PNUCC, SCL, Bonneville, the Corps and PPC commented that a mitigation requirement for the ratepayer of 5 million to 11 million salmon and steelhead is unachievable, and that the hydropower-related losses are greater than the potential of the Columbia Basin to produce fish.

Council response: The Council understands that biological limitations constrain fish and wildlife program measures, and that it is unknown whether even the bottom end of the losses range (an additional 5 million fish) can be reached.

c. PNUCC, PNGC, HREC, PPC, Tacoma DPU, Grant PUD, OCEC, LVPL, LREC, BLCCEA, CPCA, ORECA, HEC, and WREC recommended that the Council set "production targets" rather than identify a numerical hydropower responsibility. PNUCC said it believes "that reasonable fish production targets are sound alternatives to setting a hydropower loss number as a means to define the scope of the program." They suggest doubling as a target.

Council response: In Section 200 of the program, the Council has set an interim goal of doubling existing salmon and steelhead runs. The estimate of hydropower-related losses shows the doubling goal does not exceed the program limits set by the Council.

8. **Basinwide approach.** CRITFC said the calculations used to determine a hydropower-related losses estimate should not be construed to represent compensation for any specific geographic area. IPC agreed and argued that its responsibilities for fish losses have been fully settled by an agreement it negotiated in connection with the existing license for the Hells Canyon Complex.

Council response: The Council has not broken down its basinwide estimate into smaller geographic units. Nor does Section 200 address obligations of specific entities or hydropower projects. The Council expresses no view on IPC's settlement agreement.

9. **Non-hydropower losses.** The AWPPW suggested that fish and wildlife costs should be shared by such other beneficiaries as "California consumers, IOU consumers, and the nation as a whole." Grant PUD stated that "past land management practices (overgrazing, logging, farming, irrigation), industrial pollution (lumber, pulp mills, mining) and overharvest, all contributed significantly to salmon and steelhead losses." The LVPL also expressed concern that fish enhancement measures will be funded only from Bonneville rates.

Council response: The Council's program identifies mitigation measures to address the effects of hydropower facilities, including federal and nonfederal (public and investor-owned) facilities. The costs of program implementation are allocated by Bonneville under 16 U.S.C. §839b(h)(8)(D). [See program Section 1203(d)(7).] The Council has taken into account that many non-hydropower activities contributed to fish and wildlife losses. The program calls for many mitigation measures by federal agencies other than Bonneville. [See

Sections 403 (FERC and Corps) and 703 (Bureau of Reclamation.) In addition, mitigation programs exist under other laws such as the Mitchell Act (for federal impacts on fish), forest practices acts, and other habitat protection regulations. [See Appendix D: Compilation of Information on Salmon and Steelhead Losses in the Columbia River Basin, sections on mitigation for hydroelectric impacts; mining mitigation; grazing mitigation; irrigation mitigation; mitigating impacts of urbanization; and general mitigation for impacts on fish.]

10. Crediting. CRITFC contended that increases in some fish stocks will occur due to management actions of the fish and wildlife agencies and tribes and emphasized that those increases should not be credited to efforts of the Council or the hydropower system.

Council response: The Council appreciates the agencies' and tribes' efforts to control harvest and believes those efforts will be recognized in developing an evaluation and monitoring system.

11. Provisional estimates. Bonneville stated that the hydro-power-related losses should be provisional, so that if new information becomes available regarding hydropower-related losses, it could be taken into account. [See Section 204(e), System Monitoring and Evaluation, (Section 206(d) in 1987 program).]

Council response: Section 1300 provides means for amending the program if new information justifies it.

Section 202: System Policies for Doubling Runs (Section 204 in 1987 program)

1. Mainstem survival policy. The State of Idaho, Columbia Basin Fish and Wildlife Council (CBFWC), the U.S. Forest Service (USFS), the Shoshone-Bannock Tribes (ShoBans), the U.S. Bureau of Land Management (BLM), the Columbia River Inter-Tribal Fish Commission (CRITFC), and several fishing and environmental groups identified increased program emphasis on improving mainstem passage survival as a key factor in maintaining wild and natural runs. The Idaho commentors recommended a 92 percent project survival standard, which would require increasing the water budget in the Snake River and additional spill at some projects. They argued that mainstem mortality is the most important factor limiting the survival of upriver wild and natural production.

Council response: The Council is committed to improving mainstem passage and flows. Existing program policies, which anticipate full implementation of the water budget and screening and bypass at mainstem dams, have been incorporated into Section 200. Additionally, the system planning process provides the opportunity to use the Council's model to examine the effects of increased mainstem survival on the maintenance of wild and natural runs. The Council has not proposed to adopt any specific project survival standard as part of this policy, but has considered this issue in the context of CBFWC's application to amend former Section 404(b) of the program.

2. Harvest policy. In response to the Council's questions on harvest agreements in the issue paper on Salmon and Steelhead System Objective and Policies, most commentors supported the idea that the fish and wildlife agencies and tribes should address harvest questions when they recommend additional production for the program. CBFWC and CRITFC stated that it is the management entities' responsibility to make these agreements. They commented that these agreements will come out of subbasin planning and other processes. Several commentors suggested the agreements must address the mixed-stock fishery and wild/natural runs conflicts.

Council response: The program's harvest policy continues to recognize the authority of the management entities and calls on these entities to regulate harvest effectively to support ratepayer investments in rebuilding.

3. Production policy. Two production policy alternatives were described in the Salmon and Steelhead System Objective and Policies issue paper. One policy emphasized implementation and evaluation of program efforts before planning for additional hatchery production. The other policy would include planning for major new hatchery production in the development of subbasin plans.

All commentors supported an integrated mix of production types. However, there was disagreement as to what type of production should be emphasized. Idaho Department of Fish and

Game (IDFG), the State of Idaho Attorney General, the Shoshone-Bannock Tribes (ShoBans), the Yakima Indian Nation (YIN), Idaho Power Company (IPC), Region 4 of the U.S. Forest Service (USFS), the Pacific Northwest Utilities Conference Committee (PNUCC), and several fishing and environmental groups supported an emphasis on wild and natural runs because of concerns about genetic conservation, the instability of hatchery funding, and the cost of hatchery construction and operation compared to natural production. Other fish and wildlife agencies and several fishing and environmental organizations stated that, taken alone, neither alternative would be sufficient to double the runs. They suggested that wild, natural and hatchery production should be used as appropriate in individual subbasins. Most commentors said that existing hatchery production should be improved before hatcheries are constructed other than those now in the program or Draft Amendment Document. Ed Chaney suggested that the Council consider adopting a policy that allows artificial production only if it has no irreversible effects through disease, mixed-stock harvest, or genetic effects. Bonneville commented that it is premature to adopt production policies now and suggested that production policies be developed after the system planning process is completed.

Council response: The Council recognizes the need to integrate hatchery production with wild and natural production, paying full attention to the potential effects of hatchery production. These needs will be addressed in the system planning process and will be guided by policies on system integration and consistency, adaptive management and gene conservation. Although contingency planning for hatchery expansion or construction is called for as part of system planning, expansion or construction beyond current program measures will not take place until after system planning has occurred and such actions are approved by the Council. The Council expects that this process will minimize instances in which natural production has unforeseen and irreversible effects. [See program Section 200 and Appendix A (hatchery planning part of system planning).]

4. Adaptive management policy. Commentors generally supported the concept of adaptive management for the program. They also expressed general support for the recommendation for annual and five-year round-table discussions led by the Council to facilitate application of the adaptive management policy and to respond to the review requirements of Section 4(i) of the Northwest Power Act.

Council response: The program provides for adaptive management as a policy and calls for round-table discussions.

5. Gene conservation. Most commentors supported assessment of genetic risks for program actions. PNUCC commented that it was impossible to define what "maintaining genetic diversity" means, and that the ambiguity dictated a conservative approach. Bonneville suggested that any genetics policy be preliminary. CBFWC argued that "undocumented concerns about genetics should not block efforts to rebuild the fish runs." CBFWC and CRITFC commented that a method for quantitatively assessing genetic risks needs to be developed. IDFG, the Idaho Attorney General, the ShoBans, the IPC and several fishing groups proposed that first priority be given to gene conservation over other production policies.

Council response: The program includes gene conservation, monitoring and evaluation, and harvest policies to address risks to wild and natural runs. It does not emphasize any one policy. Instead, it calls on the fish and wildlife agencies, tribes and other interested parties to address associated choices in the context of system and subbasin planning. The program also includes a provision to develop quantitative methods for assessing genetic risks as part of system monitoring and evaluation.

6. Emphasis above Bonneville Dam. All commentors supported the program emphasis being above Bonneville Dam.

Council response: This policy is reflected in the program. It is consistent with the Council's analysis indicating that the majority of losses occurred in the area above Bonneville Dam.

7. System planning. There was general support in the comments for system planning as detailed in the Draft Amendment Document. The bulk of the comments related to specifics of the planning process to be detailed in a work plan. Several commentors suggested that key land and water managers be included in the process.

Council response: Instead of prescribing the planning process in detail, the program calls for the fish and wildlife agencies and tribes to develop a work plan for system planning, for public review and Council approval. The Council also has adopted an appendix to the program that contains guidelines for the agencies and tribes to use in preparing a work plan. [See Appendix A: Tools, Assumptions and Tasks for System Planning.] The Council recognizes that land and water managers should be included in the process, particularly in considering habitat projects listed in the Appendix A Table: Planning Inventory of Enhancement Projects.

8. Reference to U.S. v. Oregon. PNUCC, PPC and the U.S. Forest Service (Region 1), objected to references to the U.S. v. Oregon negotiations, since the negotiated agreement is not a public document. The ShoBans argued that it was inappropriate for the Council to defer to that agreement. The Idaho Attorney General and IDFG had similar concerns.

Council response: The Council believes that the U.S. v. Oregon agreement is likely to be an extremely important part of any basinwide plan for rebuilding anadromous fish runs. However, not all parties have signed the agreement; the public has not had an opportunity to read it; and some parties disagree with some aspects of it, therefore, the Council has deleted references to U.S. v. Oregon in the program.

Section 203: System Planning (Section 205 in 1987 program)

The program includes a system planning process. The Council uses the term "system planning" to include both subbasin planning and system integration. In subbasin planning, subbasin opportunities and constraints will be identified. At the system level, production increases will be coordinated with harvest management, mainstem passage and other subbasin plans.

1. System and subbasin planning. No commentors questioned the value of system and subbasin planning. CBFWC, CRITFC and IDFG supported the concept of subbasin planning.

Council response: The Council appreciates these comments.

2. Costs. CRITFC and CBFWC estimate that subbasin planning will cost \$1.5 million to \$2 million. CRITFC stated that the tribes are willing to provide support through participation on an oversight group and through work in related areas, such as the Pacific Salmon Commission and the court-sanctioned harvest and production planning processes in the U.S. v. Oregon litigation. The ShoBans stated that tribes generally do not have the funds to contribute to subbasin planning, and that some tribes are better able to participate than others. WDG stated that the fish and wildlife agencies and tribes have been conservative in estimating costs for subbasin planning.

Council response: The Council expects participants to contribute funding or other meaningful support for the process, recognizing that not all aspects of the process (e.g., tributary harvest matters) can be tied directly to the effects of the hydropower system. However, the Council also recognizes the value of in-kind and other support, and that not all participants will be able to offer the same level of support. The specifics of these arrangements should be spelled out in the work plan for system planning.

3. Duration. CRITFC estimated that subbasin planning will require about 18 months, while CBFWC estimated that at least two years will be required. Bonneville stated that in one-to-two years, it is feasible to do 29 subbasins in a general way, not including implementation plans.

Council response: The Council expects that time estimates for the process will be refined in the process of developing a work plan, and that 24 months is likely to be a maximum. The Council does not expect that specific implementation plans will be developed in that period of time.

4. Genetics policy. The Idaho Attorney General stated that subbasin planning should be consistent with state goals and objectives, particularly Idaho's emphasis on wild stock enhancement. Dr. James Lannan stated that he supports assessing genetic risks in subbasin planning but considers the approach identified in the subbasin planning technical planning report to be inadequate for decision-making. He stated that genetic risk must be related to probabilities of various outcomes. CRITFC emphasized that methods need to be developed to quantify genetic risks.

Council response: The Council expects that the work plan for system planning will identify how methods for evaluating genetic risks of alternative actions will be developed and applied. The Council welcomes suggestions for analyzing genetic risks and values that can be incorporated into the planning process.

5. Passage policy. The Corps stated that subbasin planning should not assume that all federal projects will have full bypass by 1992, and that subbasin planning should determine the biological potential of the system before assuming that all dams will need bypass.

Council response: The planning process is expected to look well beyond 1992, and for that reason the Council believes that all mainstem Corps projects included in Section 403 of the program will have bypass systems. The Council maintains that the prompt development of mainstem bypass systems is of paramount importance; there are no viable alternatives to be considered in planning. For this reason, the Council does not believe it would be productive to evaluate biological production potential without assuming full mainstem bypass.

6. Harvest policy. CBFWC stated that harvest planning by fish and wildlife agencies and tribes should take place concurrently with subbasin planning to place harvest in perspective with other plans, and that harvest constraints should not be used as a substitute for adequate passage. The ShoBans stated that subbasin planning should not be driven by agreements negotiated among a limited number of parties.

Council response: The Council expects that the fish and wildlife agencies and tribes will coordinate harvest, passage, and production planning in the subbasins and systemwide. The Council expects the means for this coordination to be addressed in the work plan for system planning. The Council agrees that harvest constraints should not be a substitute for adequate passage and has spelled out in the program the passage assumptions it considers reasonable at this time. The Council is sensitive to the ShoBans' concern and believes that all relevant parties should be heard in the planning process. At the same time, no single party should be in a position to veto basinwide planning efforts.

7. Subbasin planning participants and water rights. Bonneville stated that prior to funding subbasin planning, roles and responsibilities of all participants must be established. The Association of Northwest Steelheaders also identified a need to specify roles of land and water management agencies, tribes not involved in U.S. v. Oregon, Bonneville, the public and the Council. PNUCC stated that the hydropower operators and regulators, Bonneville and its customers, and resource managers should be involved directly in subbasin planning. BLM and the USFS stated that land and water managers should be involved directly in subbasin planning. The BOR, Washington Department of Ecology, Washington Department of Agriculture, Washington Cattlemen's Association, Montana Department of Natural Resources and Conservation, Oregon Wildlife Federation, Eastern Oregon Sportsman Council, and the Blue Mountain Protection Alliance stated the importance of including water managers in subbasin planning and of making certain that subbasin planning takes into account existing water rights and water supply. The National Cattlemen's Association stated that ranchers and farmers should be included in primary planning efforts.

Council response: The Council expects that roles and responsibilities will be specified in the work plan for system planning. The Council shares the commentors' concern that the planning effort be organized in such a way that it can be supported by power interests, and land, water and resource managers, with due regard for the realities of water rights and water supply. At the same time, the Council expects the system planning process to be a working process, that working groups may have to be relatively small, and that subbasin plans will be prepared within a limited time. Given this, representation in the process necessarily may not be as broad as these commentors may prefer. The work plan and system planning products will go through full public review and comment before adoption by the Council.

8. Data. PNUCC stressed the importance of using existing information. CRITFC, the Bureau of Reclamation and the USFS stated that all sources of data, not just the Council's model and data base, should be used. The Clark-Skamania Flyfishers and Bureau of Reclamation questioned the quality of data in the Council's data base.

Council response: The Council agrees that the process should rely on data that is in the Council's data base, in the hands of participants, or from other readily available sources, and that no new research should be undertaken. The Council also understands that its data base can be improved and welcomes improvements from participants in the planning process.

9. Process and products of system planning. PNUCC, Bonneville and the USFS suggested that subbasin plans first be developed for a few subbasins. CRITFC stated that all subbasin plans should be developed concurrently. Bonneville stated that 29 subbasin plans probably are not needed, because plans already exist for many subbasins and some subbasins can be aggregated into a single plan. PNUCC stated that expectations for products should not be too high and that the initial output probably will be general ideas. Bonneville stated that subbasin plans should identify production objectives, including stocks and areas of emphasis, because these provide a measure by which the Council can guide the adoption of measures. CBFWC stated that subbasin plans should indicate the potential for enhancing natural runs given the capacities of the subbasins and passage constraints, as well as helping to determine the need for new hatcheries and identifying schedules for implementing habitat improvement projects.

Council response: In the program's Appendix A: Tools, Assumptions and Tasks For System Planning, the Council identifies what it considers to be appropriate elements of the planning process and of the plans themselves. The Council generally expects those elements to be included in the work plan for system planning. The commentors' suggestions also may be addressed in developing the work plan.

Section 204: Salmon and Steelhead Research and Evaluation (Section 206 in 1987 program)

The amended program sets guiding principles for salmon and steelhead research; identifies four areas of emphasis for new salmon and steelhead research funded by Bonneville; calls on the Corps to continue to fund research in the areas of mainstem bypass and transportation; and incorporates Bonneville funding of water budget effectiveness studies.

1. Disease research. In general, there was agreement among the utilities and the fish and wildlife agencies on the areas of research that should be emphasized over the next five years. However, both Bonneville and the Columbia Basin Fish and Wildlife Council (CBFWC) commented that disease research should not be limited to spring and summer chinook, because other stocks also have serious disease problems.

Council response: Since research funds will not cover all research projects and since spring and summer chinook are the stocks most in need of enhancement upriver, and most affected by disease, it makes sense to keep research in the next five years focused on the goal of solving spring and summer chinook disease problems. It is possible that the results of research related to spring and summer chinook will benefit other species.

2. Coordination with Corps research. The CBFWC commented that the areas of emphasis identified for the water budget effectiveness and reservoir mortality research work group should be combined with those identified for the Corps' research group to allow improved coordination with bypass and transportation research.

Council response: The Council agrees that there is merit to this comment. However, the Council has not amended the program accordingly, because it would take major restructuring of the Corps research process and involve possible delays. Instead, the program calls upon the Corps to coordinate closely with the technical work group funded by Bonneville.

3. Water budget effectiveness research. The CBFWC commented that evaluating water budget effectiveness should remain the responsibility of the Fish Passage Center.

Council response: The Council considers it important for water budget effectiveness research to be coordinated adequately among all interested parties and believes that this coordination would occur best through the Bonneville-funded work group. The Fish Passage Center will be represented in the Bonneville-funded work group. Section 303 of the program calls on Bonneville to fund a smolt

monitoring program to be designed and implemented by the fish and wildlife agencies and tribes in order to provide information on the migrating characteristics of salmon and steelhead as needed to make effective use of the water budget. The Council deleted the words "and survival" from the second sentence of former Section 304(d)(1). This deletion was made to reflect the Section 200 provisions on research, but was not intended to prevent development of smolt indices or incidental collection of survival information in the Section 303 monitoring program.

4. Research planning work groups. Bonneville recommended that it "convene, fund, and facilitate" the technical work groups. CBFWC suggested that work groups containing representatives of the fish and wildlife agencies, tribes and hydro-power operators jointly develop work plans.

Council response: The Council believes the fish and wildlife agencies and tribes should select the chair of the research planning group because their expertise in scientific design and fisheries biology is critical to the success of the research program. However, the Council does intend this to be a joint process, and Bonneville and others will be key participants in the process. Bonneville also will provide an estimate of the total research budget. Through Council review and public comment, the Council will make an allocation among areas of emphasis.

5. Annual work plans. CBFWC and PNUCC recommended that the research work groups develop annual work plans. CRITFC recommended that the work groups be ad hoc, formed and dissolved as needed, to provide flexibility and minimize commitment of staff time.

Council response: The Council believes annual research work plans are unnecessary. Bonneville develops annual work plans for all projects for review by the Council, the fish and wildlife agencies and tribes, and other interested parties. [See action item 10.2.] With respect to research, Bonneville's annual work plans should be consistent with five-year plans developed by the work groups and approved by the Council. The Council agrees that the work groups should be flexible. The work groups are intended to fulfill specific responsibilities and can be dissolved when those responsibilities are complete. The work groups also can be reconvened and reconstituted as needed.

6. Test fish. PNUCC suggested that the Council condition approval of research work plans on assurance from the fish and wildlife agencies that test fish needed to carry out the research will be available. CBFWC suggested that the fish and wildlife agencies and tribes be expected only to "make every reasonable effort" to provide fish for research.

Council response: The Council expects that as part of the research planning process, the fish and wildlife agencies and tribes will ensure that test fish are available to carry out the research in the five-year work plans.

7. Guiding principles.

a. Guiding principle 3 (areas of emphasis). CBFWC stated that clarification is needed of how funding would be distributed among the different areas of emphasis.

Council response: The program states that proposed work plans, including cost estimates, are to be submitted to the Council for approval. Through its review and public comment process, the Council will have the opportunity to seek guidance on distribution of funding among the areas of emphasis.

b. Guiding principle 4 (review by policy-makers). PNUCC suggested that a research policy advisory committee should provide the "central policy forum" to guide the research process.

Council response: The Council believes that the policy function identified by PNUCC would be accomplished best through consultation among Council members and leaders of the fish and wildlife agencies, tribes, power interests, and others, rather than through a formal policy committee requirement in the program.

c. Guiding principle 5 (fish and wildlife agency and tribal participation). CBFWC commented that the fish and wildlife agencies and tribes should participate in setting program priorities and implementation schedules and in setting funding levels among areas of emphasis. CBFWC added that power entities also should participate in roles that would be specifically defined.

Council response: The Council believes the research work groups will provide sufficient opportunity for participation by the fish and wildlife agencies and tribes in setting program priorities and implementation schedules. The fish and wildlife agencies and tribes have at least two major opportunities to help identify appropriate priorities, schedules, and funding levels for the areas of emphasis: 1) in the technical research planning groups; and 2) in policy-level comments when the proposed research work plans are submitted to the Council for review and approval.

8. Areas of emphasis. CBFWC and the USFS suggested that evaluation of habitat enhancement is an important area of need. CRITFC suggested that the Council form an ad hoc genetics work group.

Council response: The Council agrees that these areas are important, but believes that immediate priority should be placed only on the six research areas of emphasis. Habitat project evaluation was not included because the Council believes it is unlikely to be as instrumental in increasing run sizes as the other areas, as well as being expensive to conduct. The system monitoring and evaluation group will investigate quantitative methods to incorporate genetic conservation into production planning under program Section 200. Program Sections 200 and 703 also include genetics research related to improved hatchery effectiveness and supplementation-related genetics research.

9. System monitoring and evaluation. CRITFC, CBFWC and PNUCC supported the idea of a small technical body to prepare monitoring and evaluation plans, coordinate systemwide data collection, and act as a central point for information flow to policy-makers. These commentors proposed creation of a policy committee to oversee the monitoring and evaluation and provide policy guidance. Bonneville commented that the hatchery data base proposed in the Draft Amendment Document (205(f)) should be coordinated through the System Monitoring and Evaluation Work Group.

Council response: The Council has adopted a system monitoring and evaluation process that includes a small technical group to prepare monitoring and evaluation plans; coordinate systemwide data collection; and act as a central point for transmitting information to policy makers. The hatchery and natural production data bases will be coordinated through the system monitoring and evaluation program. This group is a technical group, however, and not a policy group. The Council agrees policy-level coordination is important but believes it is best accomplished by consultations among Council members and leaders of the fish and wildlife agencies, tribes, power interests and others, rather than through a formal policy committee requirement in the program.

Section 204(f): Data Collection (Section 206(e) in 1987 program)

The amended program calls on Bonneville to fund the establishment and maintenance of natural production and hatchery data bases.

Comments on the data base proposals were generally supportive. Bonneville proposed that the hatchery data base measure call for the Hatchery Effectiveness Technical Work Group, in conjunction with the System Monitoring and Evaluation Work Group, to define the format and set the schedules for collecting hatchery information. PNUCC stated that although the data bases were probably worthwhile, they should not be included in the program until the System Monitoring and Evaluation Work Group evaluates what data is needed to carry out the research work plans. PNUCC also expressed concern over the cost of collecting and storing the information. In addition, it suggested that research be directed at the social, economic, and biological ramifications of mixed-stock, live-catch fisheries and on the physical means of live catching. CBFWC and CRITFC supported the measures as proposed in the Draft Amendment Document.

Council response: Bonneville's and PNUCC's suggestions that the data base efforts be tied more closely to the technical work groups and the system monitoring and evaluation program are reasonable because data collection and availability will be important to any research and planning efforts. Appropriate changes have been made in the program.

PNUCC's proposal calls for research on the social and economic aspects of live-catch fisheries. Such research would not address hydroelectric impacts. [See 16 U.S.C. §839b(h)(8)(B).] In other circumstances, PNUCC has opposed Bonneville funding of research or other activities not directly linked to hydropower impacts.

The proponents of these amendments estimated that the cost of funding these two measures would be about \$500,000 per year. The Council recognizes that this is a substantial cost and believes that an effort should be made not to exceed this cost, and that hydropower ratepayers should not be viewed as the only source of funding for collection and storage of data in the basin. [See 16 U.S.C. §839b(h)(8)(B).]

Section 206: Policy for Resident Fish Substitutions (Section 207 in 1987 program)

In September 1985, the Council approved for inclusion in the Draft Amendment Document a preliminary policy for resident fish substitutions, which states that: 1) the Council would consider resident fish substitutions for salmon and steelhead losses first in the blocked areas above Chief Joseph, Grand Coulee and Hells Canyon dams; 2) resident fish substitutions in the lower-river blocked areas may be considered later when it is clearer to what extent program goals can be achieved through salmon and steelhead measures and resident fish substitutions in the priority areas; and, 3) the Council would support ratepayer funding for resident fish substitution projects only if the proposed projects meet specified criteria.

1. Priorities. The Washington Department of Game, Columbia River Inter-Tribal Fish Commission, Columbia Basin Fish and Wildlife Council, Bureau of Land Management and Bonneville all supported the proposed policy. The Oregon Department of Fish and Wildlife (ODFW) suggested the Council consider setting priorities for resident fish substitution projects in subbasin planning. ODFW also asked the Council to remove the priority area designation (i.e., above Chief Joseph and Hells Canyon dams) in the next amendment proceedings. The Pacific Northwest Utilities Conference Committee (PNUCC) suggested that the Council delete the blocked area above Hells Canyon Dam as one of the priority areas for consideration of substitution proposals because the responsibility for mitigation above Brownlee Dam is unclear.

Council response: The Council considers it too early to remove the priority designation for substitution proposals. This designation may be removed in amendment proceedings by the Council at a later date when it is clearer to what extent program goals can be achieved through salmon and steelhead measures and resident fish substitutions in the two priority blocked areas. The Council does not anticipate any change in the priorities for at least five years. The salmon and steelhead system planning efforts will be a major experiment in coordination; it would not make sense to broaden its scope to encompass resident fish substitutions. The Council has not removed the blocked area above Hells Canyon Dam from the policy. This area formerly produced significant numbers of anadromous fish, yet very little on-site mitigation has taken place. The Council has reviewed all of PNUCC's editorial comments on the resident fish substitutions policy and has incorporated those comments that helped clarify various statements in the policy.

2. Requiring full agreement. The Shoshone-Bannock Tribes (ShoBans) welcomed the criteria for reviewing proposals, but stated the policy should not require "full agreement and participation from all parties on a particular proposal" as a prerequisite for funding. The tribes stated this could result in a veto power for any party.

Council response: The policy adopted by the Council requires consultation and coordination with interested parties, but does not require full agreement and participation from all parties on a particular proposal before funding.

3. Compensation with anadromous fish. Idaho Power Company commented that the substitutions policy is a good idea, but stated that resident fish should not be an automatic response to blocked areas. IPC stated the policy should first recognize the possibility of locating anadromous fish in other areas, as evidenced by its own fish conservation programs. The ShoBans suggested the Council avoid limiting substitution measures to resident fish species, because production of white sturgeon and

kokanee (anadromous species) may be used. The Clearwater Flycasters supported the policy, but asked the Council to consider studying the feasibility of restoring anadromous fish to some areas that have not been irreversibly blocked by dams.

Council response: The Council considers in-kind mitigation to be a first priority. However, in blocked areas, where in-kind and in-place mitigation for anadromous fish are not feasible, the Council believes the solution is resident fish substitutions. The Council has amended the program to indicate that landlocked anadromous species such as sturgeon and kokanee may be considered for substitutions. The Council may consider adding measures to the program to restore anadromous fish to areas that have not been irreversibly blocked by dams in accordance with Section 1300.

4. Numerical targets for resident fish substitutions. PNUCC suggested that project proponents should furnish supporting information on unmitigated hydropower effects, numerical production targets and the extent to which the hydropower effects are addressed, in their amendment applications. PNUCC also suggested that resident fish substitution proposals be negotiated among all interested parties. Bonneville suggested that project proponents be asked to state numerical production targets as a way to measure results against quantifiable objectives. The Upper Columbia United Tribes (UCUT) said it is not opposed to targets. UCUT suggested project proponents could examine harvest rates as a good parameter for evaluation of production targets.

Council response: The Council believes the best way for project proponents to list numerical targets would be to define the anticipated results in terms of hypotheses to be tested and to include the appropriate monitoring and evaluation techniques needed to determine whether and why those results have been achieved. Such hypotheses should be quantitative to the extent feasible. Section 207 has been changed to incorporate this approach.

5. Double mitigation. The Corps expressed concern that ratepayers would be called on to fund mitigation in blocked areas with resident fish now and with anadromous fish later when hatchery practices allow increased production in lower-river areas.

Council response: The Corps' concern is noted. Given the extent of hydropower-related losses of salmon and steelhead, the Council does not believe the scale of resident fish substitutions projects is likely to result in excess mitigation in the foreseeable future. In the future, the Council may consider the relationship between resident fish substitutions and the doubling goal, but the Council does not consider it a priority at this time.

6. Level of effort. WDG supports an alternative for determining the level of resident fish substitutions that would estimate "the pounds of anadromous fish used in blocked areas" and require production of an equal amount of pounds of resident fish. The ShoBans support resident fish substitutions "determined by the actual portion of salmon and steelhead lost." It did not comment on how to determine the portions. The BOR supported the alternative calling for a fixed level of annual expenditure for resident fish substitutions. It did not suggest an amount or recommend an approach for establishing a level of expenditure.

Council response: In developing the resident fish substitutions policy, the Resident Fish Substitutions Advisory Committee discussed these issues at some length and could not arrive at a method for equating anadromous fish losses with resident fish substitutions. The Council believes it would be inequitable to replace the number of salmon and steelhead formerly produced in blocked areas with resident fish because salmon and steelhead produced in those areas were harvested in other parts of the basin as well. Pound-for-pound replacement may not make sense because of differences in economic, cultural and genetic value between anadromous and resident fish stocks. The Council will work with Bonneville and others funding resident fish substitutions regarding the appropriate pace of funding for substitutions projects. [See action items 7.8, 10.4 and 10.5.]

SECTION 300: DOWNSTREAM MIGRATION – WATER BUDGET

Section 304(a): Establishment and Use of the Water Budget (Section 303(a) in 1987 program)

Background: The Council considered a recommendation that water budget accounting procedures specify an average daily accounting method. The Draft Amendment Document (DAD) proposed a weekly accounting method with protection for weekend flows. Two significant new water budget proposals were offered shortly before the close of the public comment period.

1. Average daily accounting recommendation. CBFWC, CRITFC, the Association of Northwest Steelheaders, Clark-Skamania Flyfishers and UCUT recommended adoption of a daily average accounting and usage procedure. They asserted that this procedure would allow the fish passage managers to increase flows on weekends when power flows are reduced and would make more water available for migrating fish. PNUCC recommended rejection of all water budget accounting amendments, including those in the DAD. It suggested that all parties continue to analyze and develop experimental accounting and implementation alternatives in 1987 and 1988 and to report the results to the Council. The Corps opposed the DAD proposals and favored the existing program. It urged the parties to continue to explore and analyze alternative water budget accounting and implementation procedures. The Corps also suggested that the Council should not lock the parties into a particular accounting procedure, but instead should allow for greater flexibility in water budget accounting and implementation. Idaho Power Company recommended that flexible accounting language be incorporated into the program concerning the Snake River water budget to accommodate annual operating agreements among the parties.

Council response: The public comments showed an unusual degree of uncertainty over the best means for water budget accounting and management and over the biological benefits of one method versus another. The Corps and Bonneville claim it does not matter how much the average daily flows fluctuate. A National Marine Fisheries Service researcher concluded in an unpublished paper in 1982 (which relied on eight years of data), that there is no indication of any adverse impacts on smolt migrations by changing from an average daily to an average weekly fish flow operation. The water budget managers disagree, arguing in their 1985 report that large drops in flow at Lower Granite Dam tend to stall the smolt migration for several days, resulting in longer travel times. No studies or major field work have been undertaken to confirm their hypothesis. In view of these uncertainties and the substantially higher cost of the CBFWC proposal, the Council has not adopted it. However, it supports continued experimentation with alternative water budget accounting and implementation procedures.

2. Draft Amendment Document (DAD) proposal. Bonneville favored adoption of the DAD procedure. Most other commentors opposed it because it would lock the parties into a specific accounting and implementation scheme that would discourage further water budget experimentation. These commentors asserted that additional years of implementing the procedures under different runoff conditions are needed before adopting the DAD proposal, which mirrors the 1986 method of operation at Priest Rapids as a program measure. Virtually all commentors, except Bonneville, had serious reservations about weekly forecasts and flow guarantees for the Snake River water budget. Most commentors claimed that weekly flow forecasts are inaccurate for the Snake River, due to the large amount of uncontrolled runoff in the basin.

Council response: The Council agrees that it would be wise to encourage experimentation and avoid drawing a conclusion at this time. The Council therefore has not adopted the DAD proposal. The Council encourages the parties to explore alternative regimes, including protection from low flows on weekends.

3. Sliding-scale and Idaho proposals. For the mid-Columbia water budget at Priest Rapids Dam, CRITFC and NWF recommended that the Council accept the DAD's proposed weekly average flow forecasting and accounting procedures and amend the program's 76,000 cubic feet per second (cfs) power base accounting floor to include CRITFC's proposed sliding-scale power base flows. The sliding-scale flows would be used in accounting for water budget use. For the Snake River water budget, CRITFC recommended rejection of the DAD language and proposed new language to assure more flexibility in water budget implementation to make the best use of limited Snake River storage and uncontrolled runoff. The Idaho Department of Fish and Game (IDFG), Idaho Attorney General's Office, the Shoshone-Bannock Tribes and two individuals recommended a total revision of Section 300 and adoption of optimum and minimum flow objectives for the Snake River water budget. Idaho Salmon and Steelhead Unlimited recommended rejection of the DAD language and adoption of a "sliding scale" accounting concept similar to the CRITFC proposal for both the mid-Columbia and Snake River water budgets.

Council response: The sliding-scale and Idaho proposals are important and require thoughtful attention and analysis. Because they were offered later in the public comment period, the Council did not attempt to respond to them in the amendment proceeding. The Council urges all interested parties to begin immediately to analyze and discuss the CRITFC and IDFG proposals. The Council has directed its staff to participate in those analyses and discussions and to report back on the results. The Council is willing to consider new implementation strategies and, if necessary, program amendments proposed as a result of the analyses and discussions.

4. Actual flows versus requested flows. One recommendation proposed that the Council clarify the meaning of Section 304(a)(2) (measuring water budget flows by the difference between actual average weekly flows and firm power flows). The fish passage managers interpreted this section to mean that the water budget should be charged with the difference between their weekly average flow request and the firm power flow, and asked that the Council clarify the program to confirm this interpretation. Most commentors supported this clarification. The Corps and Idaho Power Company, on the other hand, proposed to charge the water budget with the difference between the weekly average flow that actually occurred during a given week and the firm power flow. Bonneville advocated measuring water budget use as the difference between the managers' weekly average flow requests and the base power flow of 76,000 cfs. PNUCC recommended retaining the existing program language without clarification. Idaho Power Company recommended adoption of the "requested flow" method, with provision for alternative, consensus accounting methods.

Council response: The Council has clarified the program to specify that the "requested flow" accounting method is appropriate. This means that the water budget will be charged only with the difference between the fish passage managers' requests and actual flows. The Council believes that this method should allow flows for fish passage on more days than the "actual flows" method. Even the Corps, which recommended use of the "actual flow" method, has agreed to use the "requested flow" accounting method for the past several years of operation. The Council's action is consistent with the Idaho Power Company's recommendation that allowance be made for alternative, consensus methods such as accounting for water budget use at the participating storage projects.

5. Other. The Federation of Flyfishers recommended that the fish and wildlife agencies and tribes should be integrated better into the water budget planning process so that anadromous fish are given co-equal status with hydropower. Idaho Governor John Evans, BLM-Portland office, USFS, the Columbia River Citizens Compact, Clearwater BioStudies, Inc., Friends of the Earth, Trout Unlimited of Oregon, plus seven individuals recommended that the Council and the federal power agencies implement fully the water budget and other mainstem passage measures for the benefit of upriver runs of wild and naturally spawning fish.

Council response: The Council appreciates the importance of full implementation of the water budget, and active participation by the fish and wildlife agencies and tribes, to improve the survival of anadromous fish at and between hydroelectric facilities. [See program Sections 203 and 300.]

Section 304(b): Fish Passage Center (Section 303(b) in 1987 program)

The Council amended the program to clarify the role of the water budget managers (now called fish passage managers) and to recognize the Fish Passage Center as the institution for coordinating the interaction of fish agencies and tribes with the Corps, Bonneville and hydropower project operators on mainstem passage and flow issues. The Council also retained two fish passage manager positions.

1. Creation of the Fish Passage Center. The Columbia River Inter-Tribal Fish Commission (CRITFC), the Columbia Basin Fish and Wildlife Council (CBFWC), and the National Wildlife Federation (NWF) strongly supported the proposed language in the Draft Amendment Document with some minor modifications. Their only concerns centered around whether sufficient technical assistance will be provided to the Fish Passage Center by Bonneville to carry out its enlarged role in river system planning and operations. Bonneville and the Pacific Northwest Utilities Conference Committee (PNUCC) expressed concern over expansion of the scope of duties of the fish passage managers, particularly with regard to research and data management. Bonneville particularly opposed having the Fish Passage Center become the central repository for fish passage data, citing past experience with unavailability of data. The Corps believes the Fish Passage Center should be the primary center for housing juvenile fish passage data only for the fish and wildlife agencies and tribes, but not for hydropower project operators.

Council response: The Council considers it essential to clarify and expand the role of the fish passage managers and the Fish Passage Center in order to strengthen the fish and wildlife agencies' and tribes' roles in managing flows and spills needed to protect juvenile migrants. Moreover, without the Fish Passage Center, the Corps, Bonneville and the utilities would need to deal individually with the state and federal fish and wildlife agencies and Indian tribes. The amended program should permit sufficient technical assistance for the Fish Passage Center in order for it to do its job effectively. The Council has addressed the role of the Fish Passage Center in research in Section 200 of the program. The Council recognizes concerns over having the Fish Passage Center become the primary center for housing data on juvenile fish passage. The program requires all data collected and stored at the Fish Passage Center to be available upon request to all interested parties (Section 303).

2. Number of fish passage managers. CRITFC, CBFWC and NWF opposed the concept of a single fish passage manager to represent the fish and wildlife agencies and tribes. Bonneville, PNUCC and the Corps supported the concept of a single fish passage manager, for fiscal and policy reasons.

Council response: The Council is aware that the fish and wildlife agencies and tribes have formed the Columbia Basin Fish and Wildlife Authority. This effort to improve coordination among the agencies and tribes has resulted in welcome progress in developing consensus on fisheries issues in the basin and may reduce the need for a second fish passage manager. The Council recognizes the importance of the Fish Passage Center and its activities and encourages that it be operated in as efficient a manner as practicable given the severe constraints on Bonneville's budget.

Section 304(d)(1): Research and Monitoring

1. Bonneville suggested that because hydroacoustic monitoring for investigations of hourly fish passage patterns is funded by the U.S. Army Corps of Engineers, the program should not call on Bonneville to fund such investigations. The Corps commented that it has been investigating spill effectiveness for eight years, and the Council should not designate Bonneville to conduct the same studies at Corps dams.

Council response: The Council concurs that the Corps, not Bonneville, should continue to investigate spill effectiveness and hourly fish passage patterns at its projects. [See Section 1403 action item 3.2.5.]

SECTION 400: DOWNSTREAM MIGRATION — PASSAGE

Section 404(b): Lower Columbia River and Tributary Passage (Section 403(b) in 1987 program)

Sections 404(b)(1)-(10): Spill and Spill Management

The Council conducted a rulemaking process on interim spill for fish passage at Corps mainstem dams in early 1986 and adopted certain modifications to its 1984 program. The Council reconsidered the same amendment recommendations during the current amendment process. In the summer of 1986, the Council preliminarily rejected the spill and spill management recommendations and proposed rejection in the Draft Amendment Document (DAD). Since that time, the relevant parties have had promising discussions on alternative spill proposals.

1. **Spill survival levels.** The Columbia Basin Fish and Wildlife Council (CBFWC), the Columbia River Inter-Tribal Fish Commission (CRITFC), the National Wildlife Federation (NWF), the Idaho Department of Fish and Game (IDFG), the Idaho Attorney General (Idaho AG), and the Friends of the Earth opposed rejection of the CBFWC recommendation. In general, they disputed the notion that there is insignificant biological benefit to increased levels of spill and argued that the Northwest Power Act requires greater mainstem survival through use of spill. These groups, the Association of Northwest Steelheaders, and the Clark-Skamania Flyfishers maintained that increased spill standards are the only available method for improving the survival of downstream migrants, particularly upriver wild and natural migrants, before bypass systems are operational. Idaho Salmon and Steelhead Unlimited recommended that the Council adopt a 92 percent survival standard, measured from the intake of one dam to the intake of the next downstream dam, to assure that depleted upriver runs will be rebuilt. However, some of these commentators acknowledged that the Council's 90 percent survival standard was sufficient for low water years. Idaho Consumer Affairs, Inc., opposed attempts to modify the program's current 90 percent survival standard. The Corps recommended that the Council retain the program's present 90/80 spill standard and reject the fish and wildlife agencies' and tribes' spill amendment proposal. The Corps observed that it treats the program spill standard as a ceiling and not a floor, and commented that no spills should be planned at Ice Harbor and The Dalles dams because the sluiceways at these projects can already achieve a 90 percent survival level. The Corps also recommended minor modifications to the spill criteria language for John Day and Lower Monumental dams. Bonneville Power Administration stated that the current program spill standard (90/80) was acceptable and should be retained. Pacific Northwest Utilities Northwest Conference Committee (PNUCC) commented that there is no new information available to justify a change in the program's spill standard as adopted in 1986. It accepted the program's current spill standard as an interim measure and urged rapid installation of juvenile bypass facilities as the long-term solution to turbine mortality.

Council response: The Council appreciates the value of spill as protection against substantial losses of fish in low water years. The comments show widespread agreement that the 90 percent survival standard is appropriate in low water years. The Council is concerned that appropriate steps be taken to ensure juvenile survival at mainstem dams in all water years, however, and has found growing agreement that a sliding-scale approach to spill, whereby more spill is provided in better water years, can be formulated (see discussion below). The Council endorses attempts to formulate such an approach, but does not at this time endorse any specific proposal. The Council has committed to assist the parties in analyzing alternative plans following this amendment process.

2. **New information.** CRITFC pointed to four documents it contends constitute additional scientific evidence that the Council has not previously considered. CRITFC contended that these documents support the CBFWC spill recommendations.

CRITFC and others also argued that, contrary to the Council's earlier assumption, the Corps has not tried to increase survival levels above 90 percent.

Council response: The Council agrees that there is some new information in the record and has considered it carefully. For example, a sensitivity analysis of the smolt survival model, used to estimate the biological benefits of alternative passage measures, indicated that the model is very sensitive to error or change in several key parameters. This indicates that there is a need for further biological study of these parameters, but does not show that any given proposal is superior to any other. A preliminary analysis by the Council staff indicated that the ability to produce salmon and steelhead by natural means in portions of the upper basin is limited mainly by the survival rate of adult and juvenile migrants at mainstem hydroelectric projects. The success of measures to increase or improve available habitat may also be limited by mainstem survival rates. The Council has always claimed this to be true, however, and this analysis merely confirms that belief.

The Council believes that the Corps has provided spill above the 90 percent level, but primarily by using inadvertent spill. The Council emphasizes that the program survival standard is a minimum, which all parties should attempt to exceed. The Council urges the Corps to work with the affected parties to develop a single spill plan that would include a sliding-scale procedure to assure additional levels of spill in better-than-critical water years.

3. **Institutional arrangements.** CBFWC, CRITFC, NWF, IDFG, and the Idaho AG's office recommended that the program require Council approval of a jointly developed spill plan, and include a dispute resolution process. PNUCC agreed that the Corps should develop the annual spill plan in a joint planning process with the fish and wildlife agencies, tribes and other involved parties. PNUCC recommended that if the Corps is unable to develop a consensus spill plan by April 1, the Council should undertake to resolve disputes. The Corps said that it will incorporate the fish and wildlife agencies' and tribes' "spill criteria" (governing the initiation or termination of spill) into the annual fish passage plan, and asked that the criteria be based on the best available scientific knowledge. The Corps also said that if it does not use the fish and wildlife agencies' and tribes' suggested criteria, it would give its reasons for rejecting them and identify its own criteria in the annual spill plan it submits to the Council.

Council response: The Council encourages the Corps to develop an interim spill plan jointly with the tribes, fish and wildlife agencies, and other involved parties, and that the Corps should incorporate the fish and wildlife agencies' and tribes' spill criteria into the plan. The Council also has committed to respond to requests to facilitate consensus on the plan, including whether the fish and wildlife agencies' and tribes' spill criteria are based on the best available scientific knowledge.

4. **Sliding-scale proposals.** CBFWC, CRITFC, NWF, IDFG, and the Idaho AG recommended that the Council acknowledge the need for development of a "sliding-scale" spill standard based on juvenile fish bypass performance standards, which they claim would lend support to their efforts to develop such standards with the power interests in 1987. These commentators stated that they do not expect 70/50 bypass performance standards to be adopted into the program in 1987. However, CBFWC recommended adoption in 1987 of a 90/92/94 percent survival standard at mainstem federal dams, graduated based on anticipated runoff. The Federation of Flyfishers recommended that the Council increase the juvenile fish survival standard to "at least 92 percent in low water years and 95 percent in normal or high water years." PNUCC agreed that the Corps should develop a sliding-scale spill procedure to achieve greater than 90 percent survival in better-than-critical water years for The Dalles, John Day, Ice Harbor and Lower Monumental dams. This variable spill procedure should be implemented, PNUCC said, as long as nonfirm energy is available to spill, and Bonneville is able to meet its U.S. Treasury repayment each year. Bonneville urged the Council not to consider any further changes to the existing spill program and to focus on bypass installation instead.

Council response: The Council has endorsed the concept of a sliding-scale spill plan. However, the Council is concerned that the

concept has not received sufficient analysis or public debate to include any specific plan in the program at this time. The Council is willing to work with the parties to analyze alternative proposals following this amendment process. The Council will continue to press for prompt development of bypass systems.

5. Priority of spill. Idaho Governor John Evans and two individuals commented that the fish spills approved by the Council for mainstem dams should have priority over out-of-region power sales contracts.

Council response: The Council's spill measures provide that spill to achieve at least 90 percent smolt survival will take priority over firm power sales through August 15 of each year.

Section 404(b)(13): Albany Hydroelectric Project on Lebanon Canal

The Federal Energy Regulatory Commission and PNUCC agreed that this measure and the associated action item (32.17) should be deleted from the program because the project is no longer either licensed by FERC or owned by Pacific Power & Light Company.

Council response: These comments were noted.

Section 404(b)(17): Transportation (Section 403(b)(12) in 1987 program)

The Council rejected the Corps' proposals to endorse maximum transportation of all stocks and to allow transportation benefits to be credited against the Council's minimum survival standard for spill. Instead, the Council endorsed transportation to the extent called for by the fish and wildlife agencies and tribes. The Council also supported needed funding for transportation barges, trucks and other costs.

1. Maximum transportation. The Corps, Bonneville and PNUCC believe that the Council should endorse maximum transportation because transport benefits are proven. Bonneville included a report on modeling studies of fish passage measures, including smolt transportation, which analyzed transportation in general but did not specifically address the proposed amendment. CBFWC, CRITFC and some individual fish and wildlife agencies and tribes strongly disagreed with the Corps, Bonneville and PNUCC, and supported the Draft Amendment Document's (DAD) approach to this issue.

Council response: The Council recognizes the evidence that transportation is beneficial for most stocks, but has heard divided opinions on the efficacy of transportation for other stocks. Because the fish and wildlife agencies and tribes have primary regulatory authority regarding the transportation of fish, the Council has decided they should determine the extent of the transportation program. The report from Bonneville emphasized the uncertainty regarding transport benefits, which would strengthen the need for the cautious approach to transportation taken by the fish and wildlife agencies and tribes.

2. Formulation of transportation policy. None of the power interests, including the Corps, thought the Council should attempt to set transport policy, as originally proposed by the Corps. Instead, they felt that the policy should be determined by the Fish Transportation Oversight Team, which includes fish and wildlife agency, tribal and Corps participation.

Council response: The Council recognizes that the fish and wildlife agencies and tribes have primary authority to regulate the handling and transportation of fish. The fish and wildlife agencies' and tribes' regulatory actions should be coordinated with the Corps, and the Council encourages cooperative policy development. [See Section 1203(c)(2).]

3. Crediting transportation. The Corps questioned the wisdom of further expenditures for an annual transport program when it felt the Corps received no credit for its use.

Council response: The Council appreciates the Corps' concern and recognizes the evidence that transportation benefits some stocks. The Council does not consider it appropriate to reduce dam survival standards for spill purposes in order to recognize these benefits. However, Section 206 calls for consideration of the system benefits of transportation in the new system monitoring and evaluation program.

4. Transportation from John Day Dam. CBFWC and CRITFC supported the DAD proposal and opposed the Corps' proposal to transport fish from John Day Dam as a substitute for bypass facilities at The Dalles.

Council response: Decisions on whether or not to transport fish from John Day are for the fish and wildlife agencies and tribes to make, in consultation with the Corps and other interested parties such as Bonneville. Research to assess the effect of transportation from John Day Dam could be included in the five-year work plan as described in Section 200. The Council emphasizes the importance of timely installation of bypass systems. The Council does not view transportation as a substitute.

SECTION 500: OCEAN SURVIVAL

Section 504(a)(1): Escapement Objectives

The fish and wildlife agencies and tribes commented that it is their role, not the Council's, to establish escapement goals and rebuilding schedules.

Council response: The Council's concern is that sufficient adult fish return to spawn to justify the ratepayers' investment in rebuilding Columbia River salmon and steelhead runs. The Council intends to support the fish and wildlife agencies' and tribes' efforts to establish appropriate escapement goals and rebuilding schedules through the Section 200 system planning process.

Section 504(c) and (e): Known-Stock Fisheries and Ocean Plume Research

Bonneville submitted extensive comments suggesting that Bonneville funding of stock identification techniques, known-stock fishery demonstration projects, and ocean plume research is inappropriate. PNUCC also commented on these subjects, adding that these activities should be funded by Bonneville only if called for by the Council's system monitoring and evaluation group or a research advisory committee.

Council response: The Council did not receive or include in the Draft Amendment Document any proposals to change this portion of the 1984 program. The Council still believes these measures are an effective way to protect ratepayer investments and may be funded as off-site enhancement. The Council has amended the program to make clear that research measures under this section of the program should be coordinated through the system planning and the monitoring and evaluation processes established in Section 200.

SECTION 600: UPSTREAM MIGRATION

No comments received.

SECTION 700: WILD, NATURAL AND HATCHERY PROPAGATION

Section 704(a)(17): Umatilla Pumping

CBFWC and CRITFC supported the Umatilla pumping amendment. PNUCC opposed the pumping plan and water exchange because it is a "water resource development" project that goes beyond what Congress authorized in the Northwest Power Act. Bonneville opposed it, claiming project costs would be borne disproportionately by ratepayers in comparison to non-fishery beneficiaries. Bonneville commented that the project would cause the agency to forgo opportunities to sell the power at more lucrative rates on the open market. Bonneville also argued that there are inadequate assurances that the water will actually be provided for fish.

Council response: Appropriate water enhancement activities may be included in the program to benefit fish, under the Act's provision for "off-site enhancement," if they otherwise meet the standards of the Act. [See 16 U.S.C. §839b(h)(8)(A).] This measure is conditioned on water being made available to benefit Umatilla Basin fish. It incorporates a monitoring and evaluation requirement to ensure that the ratepayer funding provides water for fish, not for irrigation enhancements. The Council recognizes that the measure entails costs to the power system, but considers those costs reasonable and believes the measure is justified under the Northwest Power Act.

Section 704(a)(18): Walla Walla Storage

The Tri-State Steelheaders and Mill Creek Sportsmen's Association support these upstream storage measures. PNUCC opposes them because, they contend, the problems in the Walla Walla subbasin are due to irrigation withdrawals, and the Bureau of Reclamation, not the Corps, is responsible for correcting irrigation problems. PNUCC suggested that the Council should not amend specific planning activities into the program before completion of subbasin plans. PNUCC also commented that the Council should not call for the study of only one solution, because it raises expectations that the project will be built.

The Bureau of Reclamation commented that it already was authorized by Congress to construct the Touchet division of the Walla Walla Project, including storage allocation adequate to maintain minimum flows for fish in the Touchet River to the confluence with the Walla Walla River and downstream to the mouth of the Walla Walla River. This project was not constructed because of divided local opinion on the need for additional water supplies in the basin. The Corps commented that it initiated studies on Walla Walla enhancement opportunities as part of its Lower Snake River Fish and Wildlife Enhancement Study during fiscal years 1981 and 1982. Budget cuts prevented completion of the study, but the Corps is prepared to resume the study upon the availability of funds.

Council response: This project is included in the Appendix A Table: Planning Inventory of Enhancement Projects, but not in the Action Plan. It is to be considered in system planning as a potential off-site enhancement measure under the terms of 16 U.S.C. §839b(h)(8)(A). The information provided by the Corps and the Bureau will be helpful in the planning and later, if this project is to be implemented.

Section 704(b)(1)-(4): Suitable Flows

Commentors said that the DAD's provisions for suitable flows for spawning, incubation and emergence on the Vernita Bar are addressed by a FERC settlement agreement that was last renewed by the parties in August 1984.

Council response: The final program language has been modified to show that the terms of that agreement are intended to govern the above actions regarding suitable flows on the Vernita Bar.

Section 704(d)(1): White River Falls

CRITFC, the Warm Springs Tribe, ODFW, and the U.S. Forest Service supported restoring the White River Falls passage project to Table 2 of 704(d)(1). They suggested that the project represents a significant opportunity, and concerns over the Oregon Fish and Wildlife Commission's lack of support for the project likely will be resolved soon. PNUCC opposed providing passage over or removal of natural barriers.

Council response: This project is included in the Appendix A Table: Planning Inventory of Enhancement Projects and is to be considered in system planning, subject to approval by the Oregon Fish and Wildlife Commission.

Section 704(i): Northeast Oregon Hatchery

1. **Need for hatchery.** The Columbia Basin Fish and Wildlife Council (CBFWC) and the Columbia River Inter-Tribal Fish Commission (CRITFC) supported the proposal and want planning to begin as soon as possible. The CBFWC said a delay in planning would delay benefits in upriver areas by three to five years. The Umatilla tribes supported the early start of planning and wanted the Council to call for initiation of construction by Fiscal Year 1990. PNUCC said this project should be delayed, and the expanded capacity of the Umatilla hatchery (discussed below) should be substituted for the northeast Oregon hatchery. The USFS was concerned about stock displacement through haphazard supplementation. PNUCC also said a detailed proposal for the hatchery should be submitted to the Council for review and that an explicit decision must be made by the Council on an investment of this size. Oregon Trout, Clark-Skamania Flyfishers, and the Federation of Flyfishers opposed the concept of a large-scale hatchery, which they felt was implied in the draft measure for the regional facility. They favor a low capital/small-scale approach.

Council response: The Council has approved the proposal to begin planning for the hatchery in the short term. The Council does not agree that the Northeast Oregon and Umatilla facilities would serve the same purposes. The added production from the Umatilla facility would be dedicated to rebuilding runs in the Umatilla River, while the Northeast Oregon facility could serve outplanting needs in a variety of areas. A master plan for hatchery facilities will be prepared with participation of local fishing groups and other interested parties and submitted for public review and Council approval prior to Bonneville funding of design and construction. At that point, the Council can review both the subbasin plans and the facilities master plan for consistency and determine then whether a delay of the design and construction would be appropriate. The master plan will address the possibility of a low-capital, small-scale approach. It also is expected to include a supplementation proposal, conform to the Council's gene conservation policy, and contain appropriate monitoring and evaluation plans.

2. **Stocks to be produced.** PNUCC suggested the reference to spring chinook be deleted since it would limit use of the facility. The USFS also said that the measure should not specify stocks but should have supplementation needs identified in subbasin plans.

Council response: The Council has modified the measure to allow flexibility to add other stocks to the hatchery master plan if appropriate and consistent with subbasin plans.

3. **Fish and wildlife agency and tribal involvement in master planning.** Bonneville suggested that the Council should not direct Bonneville to fund the fish and wildlife agencies and tribes to develop the master plan. It said this runs counter to federal procurement regulations.

Council response: The fish and wildlife agencies and tribes are key to development of an appropriate master plan. However, the Council wishes to avoid overly detailed direction to Bonneville on its contracting decisions and has deleted references to funding recipients.

Section 704(l): Pelton Dam Fish Ladder

The comments supported this project. PNUCC wanted the production to be identified in subbasin plans.

Council response: The Council has added the requirement for a master plan for the fishway to ensure program consistency. Production will be identified in subbasin plans.

Section 704(i): Expanded Umatilla Hatchery

Bonneville commented at the October 1986 Council meeting that it supported going ahead with full-scale production for the site, and the project was formally proposed as an amendment in December 1986. PNUCC said an approved production plan for the expanded capacity was needed. It also said the expanded hatchery was a quick, cost-effective way to meet production needs. The Umatilla Tribe wanted the measure to specify completion of construction by December 1988 and to specify Bonneville funding of operation and maintenance.

Council response: The Council has modified the program to allow design and construction of the 160,000-pound fish capacity facility and to call for prompt development of a facility master plan that specifies what and how production will be used. In October 1986, the Council approved the predesign report and the design of the 160,000-pound capacity facility. It also approved limited construction of wells and water conveyance to serve the expanded facility. Approval of the master plan by the Council will allow completion of construction of the balance of the 120,000 pounds of capacity.

1. **Reprogramming.** The CBFWC and CRITFC commented that reprogramming is part of the U.S. v. Oregon agreement and should be implemented according to that plan. PNUCC supports the amendment language but believes that evaluation of the release sites should be part of subbasin plans and wants the Council to retain language for approval prior to Bonneville funding.

Council response: The Council has modified the measure to delete Council development and approval of the plan, but provides for Council review of the plan to allow a public airing prior to Bonneville funding.

Section 704(b), Table 2

PNUCC suggested that the Council delete Table 2 from the program, and that no further habitat projects be implemented until after subbasin plans are completed.

Council response: The Council has not deleted this table, but has called on Bonneville not to proceed with new projects. The Council has included ongoing projects in the Appendix A Table: Planning Inventory of Enhancement Projects. The Council also has called upon Bonneville to check with project sponsors to determine whether these ongoing projects are needed, and if they are, to complete them by 1991. Additional projects may be added to the table upon completion of subbasin plans, if consistent with those plans.

SECTION 800: RESIDENT FISH (Section 900 in 1987 program)

Section 804: Resident Fish Amendments (Excluding Resident Fish Substitutions) (Section 903 in 1987 program)

MONTANA AMENDMENTS

Section 804(a)(1)/MDFWP.

This application clarified the minimum flow requirements for the Flathead River below Hungry Horse Dam and was proposed for rejection in DAD. PNUCC and Bonneville supported the rejection. MDFWP submitted additional information that this proposal would not affect the power supply or the water budget.

Council response: The Council adopted this amendment application to clarify the intent of this measure as recommended by MDFWP in 1982. The Council has included language in the program to reflect these changes and to state these flows will be fully coordinated with Bonneville, the Fish Passage Center and the Corps.

Sections 804(a)(2), (b)(5)/MDFWP; 804(a)(3), (b)(6)/SK.

These applications called for the Council to change the date for completion of recommendations to October 1, 1989, on existing measures affecting Hungry Horse and Kerr dams. These amendments were proposed for adoption in the Draft Amendment Document (DAD). The Montana Department of Natural Resources and Conservation suggested the Council modify the language in these measures to include a reference that the recommendations will be coordinated with ongoing water management studies. PNUCC and Bonneville agreed with the date changes but suggested the Council modify the language in these measures to state that the recommendations to the Council come from MDFWP and the Salish-Kootenai Tribes rather than Bonneville.

Council response: The Council agrees with these comments. The program has been modified to reflect them.

Sections 804(a)(4)-(6)/MDFWP.

This application clarified the responsibilities of Pacific Power and Light (PP&L) in its operation of Big Fork Dam and was proposed for adoption in the DAD. Bonneville agreed with the DAD proposal. PNUCC suggested deleting the reference that the FERC require Montana Department of Fish, Wildlife, and Parks (MDFWP) and PP&L to examine mitigation alternatives. It suggested there was no need to involve the FERC because PP&L is operating Big Fork Dam in a manner acceptable to MDFWP.

Council response: The Council staff met with PP&L on June 5, 1986, to discuss this amendment. At that time, PP&L agreed with the language in the amendment application, and the Council adopted the amendment as it appeared in the DAD.

Section 804(b)(1)(A)/MDFWP.

This application clarified the drawdown limits for Hungry Horse and Libby dams. It was proposed for rejection in the DAD. PNUCC, Bonneville, the Direct Service Industries and the Corps supported the rejection. MDFWP asked the Council to table this amendment until reservoir modeling is completed in 1988.

Council response: Consistent with MDFWP's comment, the Council rejected this application without prejudice. MDFWP may resubmit its application at the appropriate time.

Section 804(b)(3)/MDFWP.

This application called for the Council to change the date for completion of recommendations on reservoir operations at Hungry Horse and Libby dams to November 1987. This was proposed for adoption in the DAD. Bonneville and PNUCC agreed with the date changes and suggested language changes consistent with their comments on the amendments mentioned above. PNUCC also suggested the Council retain the language "Upon approval of the Council ..." in Section 804(b)(2). It suggested the Council review new operating procedures before they are implemented. MDFWP asked the Council to extend the completion date of this measure to March 1, 1988. It stated this further extension would allow time to analyze all reservoir model outputs before recommendations come to the Council.

Council response: The Council believes the comments from Bonneville and PNUCC more accurately define the process for submitting future recommendations to the Council. The Council also agrees with MDFWP's request for a new date, which should allow enough time for full coordination of recommendations. The language in the proposed action reflects these changes. The Council has removed the phrase "Upon approval of the Council" from measures to avoid unnecessary Council involvement at each step of implementation.

Section 804(b)(4)/MDFWP.

This application clarified Section 804(b)(4) as it relates to the investigation of mitigation projects at Hungry Horse Dam and was proposed for adoption in the DAD. PNUCC and Bonneville's comments paralleled their comments on 804(b)(3)/MDFWP, described above.

Council response: The Council has modified the program to reflect these comments.

Sections 804(e)(1), (e)(11)/MDFWP.

These applications clarified the language for measures pertaining to Painted Rocks Reservoir and research in the lower Clark Fork drainage. Both applications were proposed for adoption in the DAD. PNUCC and Bonneville agreed with the DAD proposal.

Council response: The Council retained the DAD proposal.

IDAHO AMENDMENTS

Section 804(e)(4)/IDFG.

This amendment calls for the Corps to fund a study of the potential fishery resources in the Pend Oreille River and was proposed for adoption in the DAD. Bonneville supported the amendment. PNUCC and the Corps suggested the Council reject this amendment, contending that the Corps has satisfied its responsibility to mitigate the effects of the Albeni Falls project. PNUCC stated that ratepayer-funded mitigation for Albeni Falls Dam was provided by construction of the Cabinet Gorge hatchery. IDFG commented that upon further review of its amendment application, the study should include an evaluation of the habitat as well as the fishery potential. The Corps had budgeted for this study in 1984, but because of problems with contracting procedures, funding was lost.

Council response: The Council adopted this amendment, concluding that the project would protect, mitigate, and enhance fish adversely affected by the development and operation of hydroelectric facilities, but did not place it in the Action Plan. This should give the Corps ample time to budget for the study in future years.

Section 804(e)/IDFG 1-2.

These amendments call for enhancement projects on irrigation diversions and were proposed for rejection in the DAD. PNUCC and Bonneville supported rejection. The BOR and Upper Snake River Chapter of Trout Unlimited suggested the Council approve both amendments because they would mitigate off-site for loss of habitat caused by the construction and operation of Palisades Dam. IDFG comments echoed those of BOR on 804(e)/IDFG-2, but requested 804(e)/IDFG-1 be withdrawn because the project was completed under a joint venture with several agencies and landowners.

Council response: The Council believes these amendments seek to correct resident fish damage caused by an irrigation facility, and do not address the development, operation and management of the hydropower system. The current program also emphasizes mitigating the impacts to resident fish on-site, rather than off-site as these amendments suggest.

WASHINGTON AMENDMENTS

Section 804(e)/WDG.

This application called for the construction and maintenance of smallmouth bass ponds in the Hanford Reach. This amendment was proposed for rejection in the DAD on the basis that smallmouth bass may prey on salmon and steelhead. Bonneville and PNUCC supported rejection. The Washington Department of Game (WDG) asked the Council to reconsider and submitted a report on the relationships between smallmouth bass and salmon and steelhead.

Council response: The Council found the report inconclusive about the interrelationship between smallmouth bass and salmonid populations. The report indicates that until more research is completed, questions over the compatibility of these species will remain unanswered. Furthermore, the Council cannot determine that this amendment would complement the fish and wildlife agencies' and tribes' existing and future activities, which emphasize salmon and steelhead in the Hanford Reach.

OREGON AMENDMENTS

Sections 800/ODFW, 804(e)/OT.

These applications called for fishery studies at Lookout Point Reservoir and habitat improvements in the Metolius River. They were proposed for rejection in the DAD. Bonneville, PNUCC and Portland General Electric supported the rejection.

Council response: The Council rejected these applications.

OTHER

CRITFC suggested the Council modify Section 804(e)(10) to include provisions for coordination with the Nez Perce Tribe.

Council response: The Council has made the requested modification.

Section 804(g)(1): Resident Fish Substitutions above Chief Joseph and Grand Coulee

The Council received four amendment applications for resident fish substitution projects above Chief Joseph Dam. The projects addressed the criteria in the preliminary policy and were proposed for Bonneville funding in the Draft Amendment Document (DAD).

1. **Coeur d'Alene reservation stream survey and hatchery.** Bonneville supported this project. The Pacific Northwest Utilities Conference Committee (PNUCC) agreed the stream survey should be the first priority. PNUCC suggested that recommendations for a hatchery and habitat improvements resulting from the stream survey be submitted to the Council for review and approval before construction begins. The Upper Columbia United Tribes (UCUT) explained the stream survey is part of an integrated management plan that includes a hatchery on the Coeur d'Alene reservation. They also stated that if the stream survey suggested better alternatives than the construction of the hatchery, the Coeur d'Alene Tribe would submit an alternative plan during the Council's next amendment cycle.

Council response: The hatchery should not automatically result from the stream survey. If the stream survey justifies a hatchery, Bonneville will fund its construction and operation and maintenance. Further recommendations need not come back to the Council before construction of the hatchery. However, if a better alternative than a fish hatchery is recommended from the stream survey, UCUT will submit an alternative plan to the Council.

2. **Kokanee hatcheries at Galbraith Springs and Sherman Creek.** The Columbia River Inter-Tribal Fish Commission, Davenport Chamber of Commerce, mayor of the City of Grand Coulee, the Wilbur Chamber of Commerce, PNUCC and several petitioners supported this project as proposed in DAD. The Spokane Walleye Club commented it was concerned that the two kokanee

hatcheries were being planned without any consideration of the effects they may have on the current resident fish population. The UCUT stated they do not have any intention of disrupting the existing fishery and will keep the Spokane Walleye Club informed of their activities. The Bureau of Reclamation strongly supported the kokanee hatcheries for Lake Roosevelt and Banks Lake. It suggested minor modifications to clarify that this project would not affect drawdown at Banks Lake and Lake Roosevelt as needed for power production and downstream salmon and steelhead purposes. Bonneville said the program should not specify who will be funded to conduct studies or evaluations or to manage the facility once constructed. The UCUT disagreed with Bonneville on that point.

Council response: The Council intends that these projects not affect the drawdown at Lake Roosevelt and Banks Lake, and this is consistent with the UCUT proposal. The Council agrees with Bonneville that it is inappropriate to designate the funding recipient for this and most other projects. However, Section 1203(d)(6) of the program recognizes the special legal situation of Indian tribes and projects on Indian lands. Bonneville, in choosing among alternative means for funding program activities on Indian reservations, is to select means that fully complement the activities of the affected Indian tribes and recognize the unique rights and concerns of Indian tribes with respect to reserved Indian lands.

3. **Kalispel Tribe fisheries survey and yellow perch aquaculture facility.** The Public Utilities District No. 1 of Pend Oreille County, Washington, said the yellow perch hatchery should not be funded until the fisheries survey is completed. It also suggested the Council and interested public review the results of the study before proceeding with the hatchery. Bonneville stated the proposed yellow perch aquaculture facility should be rejected because it is merely an economic development project. However, it stated a one-year fisheries study could lead to development of an acceptable plan to enhance the fish in the Pend Oreille River. PNUCC agreed that an assessment of the fishery improvement opportunities of the Pend Oreille River is appropriate, and that recommendations from the assessment should be submitted to the Council for review. PNUCC did not rule out the yellow perch facility as an outcome of the assessment. The UCUT stated that enhancement of natural sport fish stocks would require major alterations in the way Box Canyon and Albeni Falls dams are operated for hydropower generation. Because of this, the UCUT said a fisheries survey would be a waste of time. UCUT also stated that any profits derived from the facility would be used to enhance fish and wildlife in the Pend Oreille Basin.

Council response: Bonneville has raised difficult questions about the economic development nature of the proposed aquaculture facility. However, both PNUCC and Bonneville are optimistic about the feasibility of some type of enhancement project in the areas of interest to the Kalispels. The Council calls for a study to provide further information on the range of feasible projects. The Council has made no determination on the length of the study. Rather, the Council proposes to discuss the nature of the study with the Kalispel Tribe, Bonneville and other interested parties. The parties also can discuss whether the aquaculture facility proposed by the UCUT is appropriate.

4. **Kootenai Tribe sturgeon hatchery.** IDFG supports this project. It also asked the Council to urge Bonneville funding this year due to the precarious nature of the Kootenai River sturgeon. Bonneville stated the status and genetic makeup of the white sturgeon stocks need to be determined before a hatchery is considered. The UCUT are opposed to electrophoresis studies of the Kootenai River sturgeon because of its depressed status. Bonneville also suggested the Council reject the reference to kokanee as a species to be reared in the hatchery because kokanee would not necessarily provide an American fishery. PNUCC suggested the hatchery should be a low-capital facility.

Council response: The Council shares the concern that electrophoresis studies may be detrimental to the sturgeon stocks. The Council has deleted the reference to kokanee as a species to be reared in the hatchery. However, Bonneville and the Kootenai Tribe should explore alternative ways to effectively use the hatchery year-round.

5. **Scheduling.** PNUCC suggested deleting all starting dates in the Five-Year Action Plan for these projects, presumably

placing them in the category of long-range planning (i.e., after 1991). Bonneville said it could not start any of the projects before 1990.

Council response: The Council recognizes Bonneville's need for advance planning and flexibility in meeting funding requests, and has modified the Action Plan somewhat. However, these projects are relatively low in cost (\$5 million to \$6 million), and their implementation will be spread over a six- to 10-year period. Therefore, the Council considers it reasonable to expect Bonneville to begin funding before 1989 or 1990. These projects should be considered relatively high priority since they address major unmitigated losses above Chief Joseph Dam. The Council alerted Bonneville to these potential needs in its comments on the Bonneville budget and work plan last fall.

6. **"Partially mitigate" language.** PNUCC commented that the language in the DAD, which states that the resident fish substitutions above Chief Joseph Dam will "partially mitigate" salmon and steelhead losses, is ambiguous. PNUCC suggested that the Council, Bonneville and Bonneville customers negotiate the extent to which these substitutions mitigate for specific anadromous fish losses. Furthermore, PNUCC suggested the Council initiate discussions, presumably with affected parties, to develop mechanisms to credit resident fish substitutions against anadromous fish losses.

Council response: The phrase "partially mitigate" recognizes that some mitigation for salmon and steelhead losses in the blocked areas will occur below the blocked areas, through salmon and steelhead projects. The issue of crediting resident fish substitutions for anadromous fish losses could be examined under the system monitoring and evaluation program described in Section 200. However, it need not be a high-priority effort given the likelihood that the hydropower system will not be able to make up for even the lower estimates of hydropower-related losses, even with these substitution projects. [See related comments and responses on draft Section 207, elsewhere in this document.]

Section 804(g)(2): Resident Fish Substitutions Above Hells Canyon (Section 903(g)(2) in 1987 program)

The Council received six amendment applications for resident fish substitution projects above Hells Canyon Dam. In the Draft Amendment Document (DAD), the Council requested comment on appropriate funding sources. The Council approved the projects, but identified no specific funding source and committed to take the lead role in discussions concerning appropriate funding arrangements.

1. **Shoshone-Bannock hatchery and stream improvements.** Idaho Power Company (IPC) stated it does not support the tribes' hatchery proposal for the following reasons: 1) it does not complement the activities of the agencies and tribes (i.e., it is not supported by IDFG because the agencies signed a settlement agreement with IPC); 2) it does not address an unmitigated loss (i.e., because IPC has a settlement agreement with the states of Idaho, Washington and Oregon, and an agency of the United States, which it believes constitutes full mitigation for all losses above Hells Canyon Dam); 3) it conflicts with anadromous fish because it may have the potential of undermining IPC's present fishery program; and 4) it does not reflect consultation with IPC. Bonneville opposed this and the other proposed measures above Hells Canyon Dam because it claimed that the measures' proponents have not adequately identified the hydroelectric facilities responsible for these losses. Until they do so, Bonneville argued, the proponents have not satisfied the Council's resident fish substitutions criteria.

The ShoBans stated they were not parties to the 1980 settlement agreement. The tribes pointed to the failure of fish passage facilities at Brownlee Dam and the construction of Oxbow and Hells Canyon dams without provisions for fish passage in the irreparably damaged Snake River anadromous fish runs, with significant loss to the tribes. They urged that IPC be ordered by FERC to fund the trout hatchery; and that Bonneville fund the Spring and Clear Creek projects, due to the losses of anadromous fish within the tribes' aboriginal lands as a result of the construction of Lower Granite Dam and other federal hydroelectric projects on the mainstem Snake and Columbia rivers.

Council response: The Council believes there is more to be gained by discussing the funding of these projects in a cooperative atmosphere than in an argument over legal rights and responsibilities. Accordingly, it has committed to facilitate discussions among the appropriate parties to determine how to fund these projects.

2. **Shoshone-Paiute stocking and evaluation programs.** This measure calls for the annual stocking of fingerling trout on the Duck Valley Indian Reservation; a review of groundwater suitability for resident fish production facilities; and evaluation of alternative sources of resident fish. The Shoshone-Paiute Tribes urged funding in addition to that proposed in the DAD for: 1) a tribal fishery technician; 2) a reconnaissance-level analysis of the feasibility of a lake fishery at Coyote Sink; 3) development of preliminary cost estimates for projects to protect on-reservation resident fish habitats; and, 4) a half-time tribal planner. The Bureau of Reclamation supported this project. Bonneville opposed the project for the same reason it opposed the Shoshone-Bannock hatchery and stream improvements discussed above.

Council response: In response to additional information submitted by the tribes, the Council has added measures for a reconnaissance-level analysis of the feasibility of developing an additional lake fishery, and a review of on-reservation resident fish habitats. The Council believes these activities will contribute significantly to mitigating the fish losses of the Shoshone-Paiute Tribes, and that the costs of the activities are relatively low. However, the Council does not as a general rule specify funding for personnel. Funding sources for these measures will be discussed in the same manner as the other resident fish substitution projects above Hells Canyon Dam.

3. **Lucky Peak Reservoir kokanee release and spawner trap.** The Corps said that activities under this measure should be fully coordinated with its regional office. FERC commented that Lucky Peak is being retrofitted pursuant to a FERC license for hydroelectric generation purposes, and that the licensee will operate the project under Corps constraints. Bonneville opposed the project for the same reason it opposed all the proposed measures above Hells Canyon Dam.

Council response: The Council will make sure the Corps is involved in discussions among the appropriate parties to determine how to fund this project. These discussions will respond to Bonneville's concern over funding sources.

4. **C. J. Strike Reservoir habitat enhancement.** FERC commented that any plans to rehabilitate the shoreline located within the boundaries of the C. J. Strike project need to be coordinated with IPC. IPC stated it would review projects such as this one on a case-by-case basis for possible funding by the company. Bonneville opposed the project for the same reason it opposed all the proposed measures above Hells Canyon Dam.

Council response: The Council will bear these comments in mind when it discusses with the appropriate parties how to fund this project.

5. **Malheur River habitat improvements.** ODFW said that Bonneville is the appropriate funding agency for this project. It did not give any reasons. Bonneville opposed the project for the same reason it opposed all the proposed measures above Hells Canyon Dam.

Council response: The Council will facilitate discussion among the appropriate parties to determine how to fund this project.

6. Cascade Dam and American Falls projects.

a. **Cascade Dam hatchery addition and stock programs.** In the DAD, the staff proposed rejection of the Cascade Reservoir amendment because Cascade is not a hydroelectric facility. PNUCC, IPC and Bonneville all agreed with the rejection. IDFG and Governor John Evans commented that rejection of this amendment would be ill-founded. In its comments, IDFG pointed out that: 1) Cascade is part of a larger Bureau of Reclamation project, the Boise Project, which includes hydropower facilities; 2) Cascade is the major storage facility in the Payette division of the Boise project; 3) Cascade was designed and is operated as part of the Boise project, which is operated in part to generate power; and 4) Cascade's storage capacity is used to benefit downstream hydroelectric facilities in the Boise Project.

b. American Falls reservoir fishery evaluation. In the DAD, the staff proposed rejection of this application because BOR does not own or operate American Falls Dam, and to the extent there were fish impacts when BOR did own it, the dam was not a hydroelectric facility for which the ratepayers should be responsible. Bonneville, PNUCC and BOR supported the rejection. IDFG and the ShoBans submitted comments supporting BOR funding of this study. The ShoBans pointed out that: i) when BOR originally proposed the project to Congress, BOR had power production in mind as one of the purposes for it; ii) although federal power generation has never occurred at American Falls, it was clearly BOR's intent to eventually include this function; and iii) this intent was realized upon completion of the replacement dam and associated IPC power plant in 1977. Bonneville opposed the project.

Council response: The Council has included the Cascade Dam and American Falls resident fish projects in the list of substitution projects above Hells Canyon Dam. The Council rejected the American Falls amendment at its January 14, 1987, meeting, but reconsidered that decision at its February meeting. The proposal was rejected primarily because it identified an incorrect funding source, not because it is not a hydroelectric facility. IPC has hydroelectric generating facilities at the dam. The funding arrangements for this project will be discussed in the same manner as the other resident fish substitution projects mentioned earlier.

7. Other comments on resident fish substitutions.

a. The Direct Service Industries, Inc., commented that it strongly opposes any proposal that Bonneville bear a disproportionately large share of the mitigation costs associated with resident fish substitutions above Hells Canyon Dam.

Council response: The Council has committed to facilitate discussions on funding arrangements for substitution projects above Hells Canyon Dam and will discuss cost-sharing arrangements with the appropriate parties.

b. PNUCC suggested that all resident fish substitution projects above Hells Canyon Dam be evaluated in light of PNUCC's assertion that full mitigation for Idaho Power Company's projects has been addressed under the company's 1980 settlement; and that the Lower Snake Compensation Plan has resolved anadromous fish mitigation for the four lower Snake River federal projects. PNUCC believes that all substitution projects should be focused above Chief Joseph/Grand Coulee dams and not above Hells Canyon because the hydroelectric benefits to the Bonneville power system from the Snake River above Brownlee Dam are relatively low compared to its benefits from the Columbia River above Chief Joseph Dam. PNUCC also observed that the responsibility of Bonneville and other entities for mitigation above Brownlee Dam is unclear. PNUCC suggested that while anadromous fish needs are being met, a reasonable resident fish substitution package in Idaho could be negotiated for the future.

Council response: In Section 207, the Council has included the hydropower-blocked area above Hells Canyon Dam as one of the priority areas for substitution projects, in part because its losses have been great and mitigation has been small. The Council can address the disputes above Hells Canyon by consulting with the affected parties. The biological merits of these projects are undisputed. Although several project proponents did not adequately consult with all parties before submitting their applications, the projects generally meet the criteria stipulated in the resident fish substitutions policy. The Council will take the lead role in facilitating discussions among the affected parties to resolve funding and scheduling concerns.

c. Bonneville took no position on the biological merits of the substitution projects proposed for the areas above Hells Canyon Dam. It suggested the projects be rejected and the burden of proof for funding on the substitution proposals be put on the project sponsor.

Council response: The Council will facilitate discussions on funding arrangements with all affected parties.

d. IDFG commented that first priority should be given to rebuilding anadromous stocks to the maximum capability of the Columbia and Snake river subbasins.

Council response: The Council appreciates IDFG's concern, but notes that salmon and steelhead can no longer be produced in these blocked areas.

e. The ShoBans commented they are currently seeking discussions with the affected agencies and companies on their amendment proposals. However, they also say it is the Council's role to take the lead in bringing parties together to discuss funding arrangements.

Council response: The Council will assume the role the tribes suggest, but also encourages direct and frequent contact between the tribes and affected project operators.

SECTION 900: YAKIMA RIVER BASIN (Section 800 in 1987 program)

No comments received.

SECTION 1000: WILDLIFE

Section 1004: Hungry Horse and Libby Dam Wildlife Mitigation (Section 1003 in 1987 program)

The program calls on Bonneville to fund projects designed to address the hydropower impacts to wildlife and wildlife habitat from the construction of Hungry Horse and Libby dams in Montana.

1. **General.** Several organizations, including the Great Bear Foundation, Flathead Group of the Sierra Club, Flathead Audubon Society, Columbia Falls Chamber of Commerce, Flathead Wildlife, Inc., Montana Chapter of the Wildlife Society, Montana Audubon Society, and the Montana Wildlife Federation, supported Bonneville funding of the entire package of wildlife mitigation proposals originally submitted by MDFWP. The Kootenai National Forest Service suggested the Council include all the original mitigation proposals for Libby Dam in its final decision. It also suggested the Council approve ratepayer funding for 100 percent of the proposals rather than the 79 percent reflected in the Draft Amendment Document (DAD). One board member of the Lincoln Electric Cooperative objected to the cost of the mitigation proposals. The Public Power Council suggested the Northwest Power Planning Council curtail any further consideration or funding of wildlife proposals until anadromous fish problems are solved, and the "real need" for wildlife mitigation is identified. Bonneville generally concurred with the wildlife actions listed in the DAD, with several changes to the text.

Council response: The Council does not believe the ratepayers of the region should pay 100 percent of the mitigation for losses to wildlife and wildlife habitat due to development of Hungry Horse and Libby dams, because those projects were built for purposes in addition to hydropower. The Council chose the congressional repayment allocation formula to determine the hydropower obligation to mitigate losses, but does not intend this to be a precedent for other projects. The Council believes there has not been sufficient discussion and analysis of the allocation issue to adopt one method for all cases. The Council has taken into account all of Bonneville's editorial comments.

2. **Corps involvement.** The Corps stated it has met its mitigation obligation at Libby Dam with the acquisition of 2,444 acres and expenditure of \$2 million authorized by Congress. It stated any wildlife measures approved by the Council beyond this authorization must be justified and conducted in an effective biological manner with measures that represent a reasonable cost to the ratepayer. The Corps stated it supports the continued use of the Section 1004(b)(5) process (i.e., negotiated settlement) started in April 1986 to determine if it will help fund mitigation projects at Libby, beyond those funded by Bonneville, under "good stewardship" policies.

Council response: The Council appreciates these comments. The past mitigation provided by the Corps was taken into account by MDFWP in estimating net unmitigated losses for Libby Dam. The Council has added language to the program that encourages the parties to continue the Section 1004(b)(5) process with respect to Corps participation in the mitigation effort (now in Section 1003 in 1987 program).

3. MDFWP, PNUCC and Steven Herndon (representing the Western Montana Generating and Transmission Cooperative) indicated that they had reached agreement on a method of

funding these measures through a trust account to be established by Bonneville. Bonneville commented that it could not conclude that it has authority to create such a fund.

Council response: Because of Bonneville's preliminary opinion on its ability to establish a trust, the Council has not adopted the trust account alternative. However, if Bonneville decides it can establish a trust, the program provides an avenue for such an approach.

4. MDFWP, Bonneville and the Kootenai National Forest Service indicated there were numerical errors in Table 5 of the DAD.

Council response: The Council has corrected these errors (now Table 4 in 1987 program).

5. The USFWS clarified its position that acquisition of waterfowl mitigation land would not be in lieu of expenditures authorized or required from other entities under other agreements or provisions of law, contrary to 16 U.S.C. §839b(h)(10)(A).

Council response: The Council appreciates these comments.

Section 1004: Wildlife Amendments (Excluding Hungry Horse and Libby Dam Wildlife Mitigation Proposals) (Section 1003 in 1987 program)

1. PNUCC application. This amendment application was submitted by PNUCC to revise the current planning process for developing programs for the protection, mitigation and enhancement of wildlife. The Draft Amendment Document (DAD) recommended rejection. The National Wildlife Federation, Audubon Society of Portland and Bonneville all supported rejection. PNUCC stated that it would not contest the rejection of its amendment and would continue to review and address wildlife projects as they come before the Council. PNUCC agreed with the statement in the DAD that negotiation of wildlife projects is possible under Section 1004(b)(5) of the program.

Council response: The Council appreciates PNUCC's comments and urges its continued participation in the wildlife planning process.

2. Peregrine Fund application. This amendment application calls for Bonneville, in cooperation with the U.S. Fish and Wildlife Service and state agencies, to fund efforts to aid the recovery of peregrine falcons through captive production and release at reintroduction sites throughout the basin. The Council staff proposed rejection of this amendment in the DAD, because the current program already contains mechanisms for incorporating peregrine falcon programs into mitigation plans being developed by the wildlife agencies and tribes. Bonneville supported rejection. A city planner from Goldendale, Washington, asked the Council to adopt the amendment. The Peregrine Fund, Inc., Morlan Nelson and the Pacific Coast American Peregrine Falcon Recovery Team all urged the Council to reverse the DAD proposal. Mr. Nelson commented on the relationship between the decline of the peregrine falcons and the development of the hydroelectric system in the Columbia Basin since 1948.

Council response: While the construction of several hydroelectric facilities in the basin may have had a bearing on the decline of peregrine populations, other factors, such as the widespread use of the pesticide DDT in the late 1960s and 1970s, also contributed significantly to the decline of the peregrines throughout the Columbia Basin. Wildlife mitigation plans for hydroelectric facilities where peregrines were seen prior to construction are currently being developed or are scheduled to be developed within the next few years. In particular, the wildlife mitigation plan for Palisades Dam was completed by the Idaho Department of Fish and Game in November 1986 and contains several enhancement proposals for peregrine falcons.

3. Section 1004, Table 5 (land acquisition). PNUCC stated that it is premature to include Table 5 in Section 1004 of the program. The Washington Department of Game agreed, but stressed that the Council recognize that Table 5 identifies land acquisition needs for some projects.

Council response: The Council has removed Table 5 "Acquisition of Off-site Wildlife Habitat" from former Section 1004 of the program. The Council considers it premature to include land acquisition projects before they are approved and amended into the program.

4. Incorporating wildlife plans into the program. PNUCC agreed that appropriate portions of wildlife plans should be incorporated into the program in amendment proceedings. The Washington Department of Game agreed that amending wildlife plans into the program was appropriate, but stated the plans should be amended as soon as they are submitted to the Council rather than after the regular amendment schedule.

Council response: The Council appreciates these comments. Under Section 1300, the Council may amend the program on its own motion at any time.

5. Funding. The Columbia River Citizens Compact stated that the Council should proceed with all wildlife measures in the program, but schedule them according to availability of funds. The Association of Northwest Steelheaders urged the Council to direct Bonneville to continue funding wildlife mitigation status reviews as directed in Section 1004(b) of the program. Bonneville agreed with the changes proposed in the DAD, but considered its obligation to fund wildlife planning to be limited to federal hydropower facilities.

Council response: The Council will continue to schedule wildlife measures through the program's Action Plan. The Council believes that Bonneville may be called on to fund wildlife planning at non-federal facilities in appropriate circumstances as off-site enhancement, and notes that the majority of the basin's wildlife mitigation status reports have already been completed. However, the Council also has included an action item directing wildlife agencies and tribes to work directly with hydroelectric project operators to address the effects of non-federal projects, as provided in program Sections 1003(b)(5) and 1403 (action item 8.15).

6. Implementation of mitigation plans. PNUCC commented that the Council should not delete action item 40.6, and stated that in some instances the Corps, Bureau of Reclamation or the Federal Energy Regulatory Commission may be included as funding sources for mitigation plans.

Council response: The Council agrees that this action item should remain in the program. The deletion of this action item from the DAD was an error (action item 8.12 in the 1987 program).

7. Deadwood Reservoir. The Idaho Department of Fish and Game (IDFG) and Governor John Evans asked the Council to include Deadwood Reservoir in the wildlife mitigation plans for Black Canyon Dam.

Council response: No application was submitted proposing to add Deadwood Reservoir to Table 4 of former Section 1004 for purposes of wildlife mitigation planning, and accordingly there has been no opportunity for the region to comment on such a step. IDFG may submit such an application under Section 1300 of the program. Alternatively, IDFG may submit mitigation recommendations for Deadwood as part of the mitigation plan for Black Canyon Dam, and the Council will review and act on those recommendations in accordance with 1003(b)(4) of the program.

SECTION 1100: ESTABLISHMENT OF FISH AND WILDLIFE COMMITTEE (deleted in 1987 program)

No comments received.

SECTION 1200: FUTURE HYDROELECTRIC DEVELOPMENT (Section 1100 in 1987 program)

No comments received.

SECTION 1300: COORDINATION OF RIVER OPERATIONS (Section 1200 in 1987 program)

Dispute resolution. CRITFC said that while it was not withdrawing its application on dispute resolution, it was pleased that the Council is exploring other avenues for working with the tribes, including the use of periodic round-table discussions (see Section 200). Ed Chaney commented that there are significant problems with federal agencies that do not implement program measures and refuse to explain why, and that a process should be established to deal with such problems.

Council response: The Council and its staff are committed to working with all parties to ensure that the program is properly implemented. However, the Council has chosen not to establish more formal procedures than currently exist.

SECTION 1400: AMENDMENTS (Section 1300 in 1987 program)

Bonneville, Idaho Power Company, PNUCC and the Washington Department of Game support the Draft Amendment Document (DAD) proposal. Bonneville and Andy Rankis commented that on occasion the program may require amendment, generally or on specified priorities, in less than five years. The Columbia River Inter-Tribal Fish Commission (CRITFC) commented that the Council's system approach to planning will require a more flexible approach to program amendments. CRITFC proposed a schedule that would allow amendments to the Council's system planning process every six months over the next three years, and then every two to three years after that, to coordinate with *U.S. v. Oregon* and Pacific Salmon Treaty negotiations. The Yakima Indian Nation commented that a five-year amendment cycle is too long, and the Shoshone-Bannock Tribes and Clark-Skamania Flyfishers proposed that amendments should be made every two years or so. A PNUCC contractor proposed a 10-year amendment cycle.

Council response: The Council recognizes that the program may require amendment generally or in specific respects more often than every five years, and the Council has discretion to act accordingly. The Council has not adopted a specific schedule for more frequent amendments, but has provided that parties may ask the Council to act on specific amendment proposals at any time. The Northwest Power Act requires that the program be amended at least every five years; a 10-year cycle is impermissible.

SECTION 1500: FIVE-YEAR ACTION PLAN (Section 1400 in 1987 program.)

Section 1504: Action Plan (Section 1403 in 1987 program)

1. Action item 32 (mainstem passage).

a. Section 404(b): Bypass schedules for Corps projects.

The Corps of Engineers submitted amendment applications to delay bypass completion dates at several of its projects. Later, in December 1986, the Corps submitted proposals to slip the bypass schedules, which further caused considerable confusion and controversy. Accordingly, the Council reopened its comment period to hold consultations on the bypass schedules. The program was amended to incorporate a consensus schedule that emerged in public comment and consultations.

- 1. Corps proposal.** Commentors generally acquiesced in the Corps' initial recommendations to delay completion of juvenile bypass facilities at Ice Harbor and The Dalles dams. Comments also were generally favorable on the consensus schedule that resulted from the most recent consultations. CRITFC supported the proposed schedule, but noted a pattern of Corps schedule slippage and urged that the Council emphasize in the program the region's commitment to proceeding expeditiously with bypass facilities. The Idaho Attorney General likewise complained about Corps delays and reluctance to complete bypass projects. He urged that the Council retain the dates in the Draft Amendment Document (DAD) unless the Corps conclusively demonstrated that delays were required by engineering constraints. He added that the installation of bypass at The Dalles Dam should not be delayed by the John Day Dam transportation study.

The National Marine Fisheries Service (NMFS) pointed to the broad consensus on bypass and expressed appreciation for the Council's continuing discussion of implementation problems. NMFS stated that transportation at John Day Dam was not an acceptable alternative to bypass at The Dalles Dam and that the John Day Dam transportation study should be accorded a low priority. In addition, NMFS called for a 1992 completion of the McNary Dam holding and loading facilities, to accommodate increasing numbers of hatchery fish. The Idaho Department of Fish and Game also endorsed the most recently proposed schedule; noted that Ice Harbor Dam was a lower priority if slippage was necessary; and urged

that the John Day Dam transportation study be accorded a low priority. The Shoshone-Bannock Tribes endorsed the schedule in the DAD, noted the importance of completing the facilities, and urged that transportation studies should not substitute for or delay screen installation. The Pacific Northwest Utilities Conference Committee (PNUCC) supported the Corps' recent schedule and offered to assist in expediting completion of the facilities.

Council response: The Council remains fully committed to the earliest possible installation of bypass systems at mainstem Corps dams. These systems are key to the effectiveness of virtually all elements of the Council's anadromous fish program, and reflect a widespread regional commitment to that program. The Corps has an obligation to take into account to the fullest extent practicable the Council's bypass measures and schedules. [See 16 U.S.C. §839b(h)(11)(A)(ii) and program Section 1203(a).] The Council appreciates the Corps' review of its schedule for bypass installation. The Council agrees that transportation at John Day Dam is not a substitute for bypass facilities at The Dalles Dam, and that transportation studies are not a substitute for bypass development generally.

- 2. Scheduling priorities.** PNUCC recommended that the Council adopt priorities to be used as guidance for any future schedule slippage. For example, it suggested that Ice Harbor would be given a lower completion priority than Lower Monumental if slippage became necessary.

Council response: The Council can see no practical way to incorporate these types of priorities in the program, but they could be discussed further with the Corps if any further slippage is necessary. The Council expects any future proposals for change in the bypass schedule to be discussed openly with policy representatives of the major affected parties to avoid unnecessary confusion and controversy.

b. Action items 32.11, 32.12, 32.13, and 32.14 (mid-Columbia dams). The Mid-Columbia Coordinating Committee submitted extensive technical comments on the language proposed in the DAD. The committee's comments were supported by PNUCC and FERC. The comments, which represent the consensus of the parties in the mid-Columbia/FERC proceeding, provided updated schedules for developing bypass systems at the mid-Columbia dams.

Council response: The Council has changed the program to be consistent with the committee's comments.

c. Action item 32.15 (Willamette Falls adult trap). Portland General Electric (PGE) commented that the Willamette Falls project should be delayed and considered in the subbasin planning process. PNUCC supported these comments. No comments were received from the fish and wildlife agencies and tribes.

Council response: The Council considers this suggestion appropriate and has included this measure the Appendix A Table: Planning Inventory of Enhancement Projects.

d. Action item 32.16 (Marmot Dam and Sullivan). PGE commented that it is participating with ODFW in scheduling studies and corrective actions for the Marmot and Sullivan projects. PGE suggested that the completion dates be established through the cooperative process. PNUCC supported these comments. FERC said that delays in the studies have resulted from changes suggested by the cooperating agencies.

Council response: The Council has modified the program to incorporate the approach suggested by these comments.

e. Action items 32.18 and 32.19 (Leaburg and Walterville canals). FERC commented that the Leaburg Canal screening project is on schedule and that the fish and wildlife agencies are satisfied with progress at the Walterville project.

Council response: The Council interprets these comments as supporting the changes made in the program.

2. Action item 33 (water budget and other mainstem flows). Bonneville commented that CRITFC has secured alternative funds for tribal coordination of water budget measures, so the measure should not call for Bonneville funding.

Council response: The Council has changed the program to provide for Bonneville funding of tribal coordination expenses "if necessary."

3. Action item 34 (production capability).

a. **Habitat and tributary passage projects under Section 704(d).** A group of amendments raised the issue of how to treat ongoing habitat and passage activities in tributaries while subbasin plans are developed. The Council determined that only projects now listed in the Action Plan should be funded until subbasin plans are complete and approved. To ensure that untimely or ineffective projects do not proceed, even ongoing projects can be delayed or dropped if it is shown in program amendment proceedings that feasibility studies or other new information demonstrates that the projects do not meet the standards of the Northwest Power Act.

The majority of comments supported the Council's proposed approach. The Columbia Basin Fish and Wildlife Council (CBFWC) agreed that new habitat and tributary passage projects should be limited until subbasin plans are complete. Bonneville also supported this approach but would prefer to merely initiate or take action on the projects by 1991, rather than complete them by that date. PNUCC, on the other hand, questioned the need for any additional habitat and passage projects, stating that much habitat in the basin is underused. However, PNUCC provided no documentation that any specific project would waste ratepayer money by providing habitat that would not benefit fish. PNUCC also argued that most projects on tributaries address non-hydroelectric impacts, that no mechanism exists for crediting expenditures against the hydropower system obligations, and that stocks and areas of emphasis are not yet determined. PNUCC further said large monitoring and evaluation projects should not be funded until design issues have been resolved. CBFWC and CRITFC agreed there is underused habitat, but said this was largely a result of the mortality caused by hydropower projects. They believe habitat must be made available in advance of fish restoration or the effectiveness of other program measures would be reduced.

Council response: In response to PNUCC's concerns, the Council has modified the action item to add a mechanism for deleting or delaying specific projects on the basis of feasibility studies or other new information. On the other hand, the Council has not called for a stop to all habitat and tributary passage projects. Projects in tributaries may be conducted as off-site enhancement for hydropower-caused losses, as provided in Sections 4(h)(5) and 4(h)(8)(A) of the Northwest Power Act. Crediting, monitoring, and subbasin planning issues are addressed in Section 200. No credible argument has been made that ratepayers are paying for more than the losses caused by the hydro-power system. In response to Bonneville's suggestion that activities only begin by 1991, almost all of these projects have already started. The Council identified 1991 as a completion date based on Bonneville's current status reports. The date appears reasonable on that basis.

b. **Enloe Dam passage.** PNUCC and Okanogan PUD commented that the Enloe Dam measure should be deleted from the Action Plan, based on concerns over the project's productivity, the possibility of introducing fish diseases into Canada, and the harvest allocation conflicts that might arise. CRITFC supported retention of the Enloe Dam project in the Action Plan. CRITFC said that concerns over productivity and disease are traditionally the province of the fish and wildlife agencies and tribes and would be solved by them. The Yakima tribe also supported proceeding with the Enloe Dam measure. The Washington Department of Fisheries and the Washington Department of Game suggested that these issues be addressed in subbasin planning before the Enloe measure proceeds.

Council response: The Council agrees that these issues should be addressed in subbasin planning before implementation of this measure. In that setting, the appropriate management entities may address these concerns in the first instance. The Washington fish and wildlife agencies support this approach.

c. **Action item 34.5 (Bonneville work plan).** Bonneville suggested changes in the timing of its work plan under Section 704.

Council response: The Council has eliminated the action item for a separate work plan for Section 703 measures. Action Item 10.1 now calls for Bonneville to submit a single work plan for all measures by September 15 of each year.

d. **Action item 34.02 (ongoing projects, Section 704(d)).** Bonneville's comments included an updated list of ongoing projects from Table 2 of Section 704(d).

Council response: The Council appreciates the updated list and has taken this new information into account.

e. **Action item 34.03 (northeastern Oregon outplanting facility).** Bonneville suggested the Council approve funding of master plan development and preliminary design of this facility.

Council response: The Council did not approve funding of preliminary design in the 1987 program. After the master plan is developed, Council approval will be required before preliminary design occurs.

f. **Action items 34.13 and 34.20 (John Day acclimation ponds).** Bonneville suggested that a completion date for this facility was speculative, and for that reason should not be included. It also commented that the site survey report for this facility should include specific sites and conceptual designs.

Council response: The Council believes a target date is important for this project and has therefore left the completion date in the program. The Council agrees that the site survey report should include specific sites and conceptual designs and believes the program language includes these requirements.

4. Action item 35 (protection from new hydroelectric development).

a. **Action item 35.6.** Bonneville commented that a similar effort is being conducted by the Electric Power Research Institute, which will test a fixed screen and existing fish protection devices in combination with one another.

Council response: The Council has changed the program to request documentation and results of any studies being conducted elsewhere.

5. Action item 39 (evaluation and research).

a. **Action item 39.1.** Bonneville supported the proposed deletion of this action item, and encouraged action on some areas of research emphasis.

Council response: The Council appreciates this comment and urges Bonneville and other interested parties to proceed with the research and evaluation program called for in Section 200.

b. **Action item 39.02.** Bonneville suggested the Council specify that Sections 704(h)(2)(A)-(D) and (F) underlie the action item.

Council response: The Council has changed the program as Bonneville suggested.

c. **Action items 39.03-39.05 (data bases).** Bonneville agreed with the Council proposal, but said that availability of funds may affect implementation schedules.

Council response: The Council has identified an expected cost for these measures and urges that this cost not be exceeded. The Council also requests that Bonneville keep the Council closely advised regarding any difficulty in meeting implementation schedules.

6. Action item 40 (wildlife).

a. **Action items 40.1-40.4 (wildlife planning at non-federal projects).** Bonneville suggested the program specify that Bonneville will fund only those wildlife planning activities connected with federal hydroelectric facilities.

Council response: The Council understands Bonneville's position, and has amended the program to direct fish and wildlife agencies and tribes to seek funding for these activities from non-federal project operators, where appropriate, before seeking Bonneville funding. [See action item 8.15 in 1987 program.]

b. **Action items 40.01-40.07 (Libby Dam).** Bonneville suggested a number of changes intended to bring initiation dates of projects in line with funding availability.

Council response: The Council has adopted Bonneville's suggestions.

7. Action item 41 (resident fish — bull trout hatchery on Coeur d'Alene Reservation).

a. Action items 41.1 and 41.01. Bonneville commented that although it would facilitate completion of the studies and present the results to the Council, Bonneville should not make recommendations for further action.

Council response: The Council agrees and has changed the program to specify that recommendations for further action should come from the Montana Department of Fish, Wildlife and Parks.

b. Action item 41.02. Bonneville suggested the program be amended to clarify that funds for the design, construction, operation and maintenance of the hatchery should be provided only if justified by the stream survey.

Council response: The Council believes that Bonneville's point is implicit in the current program language, and therefore has not altered it.

c. Action items 41.03-41.05 (resident fish hatcheries). Bonneville commented that October 1987 was too early to expect start-up funding for these projects.

Council response: The Council has changed the start-up date to 1988 in deference to Bonneville's budget processes. The losses in the blocked areas have been enormous; yet they have received little mitigation. Accordingly, the Council views these projects as high priority measures. The cost of these projects is relatively small and would be phased in over a period of years.

8. Action item 42 (coordination).

Action item 42.3 (intertie access). Bonneville, the Public Generating Pool and PNUCC supported the proposed rejection. The Association of Northwest Steelheaders proposed that the application be adopted to limit Bonneville's ability to enter into long-term firm power contracts without evaluating conflicts with the Council's program.

Council response: Section 1203(a)(3) of the program already requires Bonneville's intertie arrangements to be exercised in a manner consistent with the program.

9. Delete the Action Plan. PNUCC proposed deletion of the Five-Year Action Plan from the program. Deletion, said PNUCC,

would make the Action Plan more flexible and dynamic because program amendment proceedings would not be necessary to change schedules. As a result, PNUCC stated, the Council and Bonneville could develop annual work plans more cooperatively.

Council response: The Council has responded to the PNUCC request for a more "current, relevant, and effective" Action Plan by updating schedules based on comments from the implementing agencies and on staff experience in estimating the time needed to finish projects. It also has refined the work plan action items, so that work plans will provide more useful information to commentors on a schedule that reflects the usual timing of congressional budget processes. If any major changes are needed in the Action Plan due to unforeseen problems, the Council can undertake a "fast-track" amendment process on its own initiative at any time.

The Council has not deleted the Action Plan because it believes program implementation is best advanced by a three-pronged approach: 1) Council identification of five-year targets, in the program; 2) Council review and comment on annual work plans developed by the four major implementing agencies; and 3) Council review and comment on related budget proposals developed by those agencies.

The Council believes the Action Plan helps Bonneville plan its program implementation by identifying five-year objectives and priorities to aid Bonneville and other implementing agencies in deciding which program measures should be funded first.

APPENDIX B: COMPLETED ACTIONS

The Council adopted as a program appendix a list of completed projects.

Bonneville submitted comments in the form of a revised list of completed actions that included several more projects than were listed in the Draft Amendment Document.

Council response: The Council appreciates Bonneville's information, and has included several additional projects listed by Bonneville. The Council listed those projects in which all activities called for by the program had been completed. The Council did not include projects listed by Bonneville in which some but not all program activities had been completed.

APPENDIX C

Part 2

Rejections

As part of the amendment process for the fish and wildlife program, the Northwest Power Act requires the Council to explain in writing why a rejected recommendation would be less effective than the adopted recommendations or how it would fail to:

- Protect, mitigate and enhance fish and wildlife affected by the development, operation and management of Columbia Basin hydroelectric facilities, while assuring the Pacific Northwest an adequate, efficient, economical and reliable power supply;
- Complement the existing and future activities of the federal and the region's state fish and wildlife agencies and appropriate Indian tribes;
- Be based on, and supported by, the best available scientific knowledge;
- Use the alternative with the minimum economic cost, where equally effective alternative means of achieving the same sound biological objective exist;
- Be consistent with the legal rights of appropriate Indian tribes in the region; and
- In the case of anadromous fish:
 - (i) provide improved survival of such fish at hydroelectric facilities located on the Columbia River system; and
 - (ii) provide flows of sufficient quality and quantity between such facilities to improve production, migration, and survival of such fish as necessary to meet sound biological objectives.

This part of Appendix C provides the Council's explanation for rejecting amendment applications.

Because the 1987 program has been renumbered, two sets of numbers are used in the Rejections section. The boldface numbers are 1984 program references because they refer to the specific program section addressed in the amendment applications. The Council's explanations, however, often refer to steps taken in the 1987 program, so current program numbers are used in the text unless otherwise indicated.

SECTION 100: INTRODUCTION

None

SECTION 200: PROGRAM GOALS

None

SECTION 300: DOWNSTREAM MIGRATION — WATER BUDGET

304(a)-(d)/CBFWC. CBFWC proposed to clarify the present program's water budget accounting procedures by changing to an average daily accounting method. The Council rejects the average daily accounting method on the basis of 16 U.S.C. 839b(h)(6)(C). The Council cannot determine that the average daily accounting method would improve production, migration and survival of anadromous fish over the current method of water budget accounting. [See 16 U.S.C. 839b(h)(6)(E)(ii).] There has been an ongoing disagreement among the various parties as to whether juvenile fish would benefit from use of an average daily versus an average weekly water budget accounting method. The Corps, Bonneville and some fishery researchers have maintained that the best available scientific knowledge indicates that smolts travel roughly at the same velocity as the water, regardless of daily flow fluctuations within a week. If two weekly average flows are equivalent, they maintain, a water particle (or smolt) will travel a similar distance. They have pointed to information that indicates no improvement in actual smolt travel time from weekly average minimum flows as compared to daily average minimum flows. The

water budget managers have disagreed. They have pointed to 1985 information that large drops in flows at Lower Granite Dam tended to retard smolt migration for several days, resulting in longer travel times. No studies or major field work have been undertaken to confirm this hypothesis.

On the other hand, the Council finds that the current method of accounting entails a lower economic cost than the average daily accounting method. Adoption of average daily water budget use would result in additional costs in lost nonfirm power revenues over the present weekly average procedures.

The Council maintains that other alternatives may exist that would be more effective in achieving the biological objective of decreasing smolt travel time than either the program's present accounting method or the CBFWC proposal. Accordingly, the Council calls for continued experimentation and evaluation of alternative water budget accounting and use procedures to determine whether alternative procedures would be more effective in increasing survival, but at a lower economic cost. Moreover, the Council urges the parties to continue to include a weekend flow fluctuation limit in the annual coordinated plan of operation for the water budget.

SECTION 400: DOWNSTREAM MIGRATION — PASSAGE

403, 404(b)/CBFWC and 1504/CBFWC. CBFWC proposed to increase the levels of interim spill to 31, 41 and 41 percent of the average daily flow at Lower Monumental, Ice Harbor and The Dalles dams, respectively, to provide increased smolt survival over the present program spill requirements and to protect 80 percent of the spring and summer migrations.

The Council rejects the CBFWC applications on the basis that they would be less effective than the adopted provisions. [See 16 U.S.C. 839b(h)(7)(C).] At the July 1986 Council meeting and in their written comments, fish and wildlife agency representatives stated that the present 90/80 spill standard is acceptable as a minimum, to be provided in critical water years. In December 1986, different spill proposals were offered, some of them considerably different from earlier proposals. At a December 1986 consultation, the fish agencies and tribes stated they were actively pursuing discussions with the Corps, Bonneville and the PNUCC concerning "a sliding scale" spill proposal that would apply in all but critical water conditions. The fish agencies and tribes and PNUCC expressed confidence that such a proposal could be developed by consensus among the parties. The Council endorses the concept of a sliding-scale spill regime.

The Council did not find it possible to evaluate the new spill proposals in the short time after they were offered and did not wish to interfere with the parties' discussions. However, the Council endorses the parties' discussions and expresses its willingness to work with the parties to evaluate new proposals, including the fish agencies' and tribes' proposed bypass performance standards and 90/92/94 percent survival standards, which would apply in below-average, average and above-average water years, respectively.

404/AEI. This application, from a firm that pioneered laser branding of fish, proposed Bonneville and Corps funding of a pilot program for laser branding of juvenile anadromous fish. The Council rejects this application as less effective than recommendations adopted in Section 206(d). [See 16 U.S.C. 839b(h)(7)(C).] In Section 206(d), the Council established a system monitoring and evaluation program that will study various evaluation and monitoring methods. As Bonneville or other implementing agencies pursue methods identified under that program, the applicant may submit its laser branding proposals in response to requests for proposals.

404(b)(17)/Corps. This proposed amendment had three parts: 1) maximum transportation of juvenile salmon and steelhead in all flow years, 2) deletion of language calling for preparation of a comprehensive report on transportation activity, and 3) crediting of transportation benefits to non-collector projects (Lower Monumental,

Ice Harbor, John Day and The Dalles). The Council rejected the first and third portions of the amendment and accepted the second. In addition, the Council provided language in the program recognizing the position of the fishery agencies and tribes in determining transportation policy and specifying how transportation benefits apply to individual project survival requirements.

In the first part of the proposed amendment, the Council is unable to conclude that the Corps' proposal to transport fully all species, regardless of flow, is supported by the best available scientific knowledge because of conflicting research results. [See Section 4(h)(6)(B) of the Northwest Power Act.] The approach adopted by the Council, therefore, would be more effective than the Corps' proposal. [See Section 4(h)(7)(C) of the Northwest Power Act.] The Council recognizes the fishery agencies' and tribes' authority over the transportation of fish in the Columbia River and its tributaries. The effect of this portion of the proposed amendment would be to take the fishery agencies and tribes out of the decision-making process on transportation and would be inconsistent, therefore, with Sections 4(h)(6)(A) and 4(h)(11)(B) of the Northwest Power Act and Section 1203(c) of the 1987 Columbia River Basin Fish and Wildlife Program. As a result, it would be less effective than the adopted recommendations. [See 16 U.S.C. 839b(h)(7)(C).]

The portion of the Corps' proposed amendment dealing with crediting of transportation to individual project survival goals would result in lower juvenile survival for some important stocks. If fish destined to pass lower projects are intercepted and transported from upper projects and credited against the number of mortalities of the remaining fish at the lower projects, less spill would be required at the lower projects to meet the Council's minimum survival standard. That would result in a lower level of protection for those fish not intercepted and transported or those entering the system below the point of collection. This would result in a lower level of system survival, given that equal proportions of the migration are transported. The Council concludes that the proposal: 1) does not serve to "protect, mitigate, and enhance" the fishery resource as affected by hydroelectric development (4(h)(5)) and 2) by reducing smolt survival at non-collector projects, does not provide "improved survival of [salmon and steelhead] at hydroelectric facilities" (4(h)(6)(E)(iii)) and would be less effective than adopted recommendations (4(h)(7)(C)).

Finally, the intent of the Council is that the minimum survival standards for individual projects specified in Section 403 apply to fish not benefiting from transportation. In addition to the above reasons, transportation does not provide equal protection for all stocks and does not affect directly the survival rate of fish passing projects other than those serving as collection points. Therefore, transportation benefits should not apply to the individual project survival minimum specified in Section 403. Nonetheless, transportation is an important tool for improving the survival of salmon and steelhead systemwide. The Council concluded that transportation benefits should be credited on a system basis and will be considered in system planning, monitoring and evaluation efforts described in Sections 205 and 206(d).

SECTION 500: OCEAN SURVIVAL

None

SECTION 600: UPSTREAM MIGRATION

None

SECTION 700: WILD, NATURAL AND HATCHERY PROPAGATION

704/CBFWC. CBFWC proposed that Bonneville wheel power from federal hydropower projects to existing fish facilities constructed to mitigate the effects of development of the Federal Columbia River Power System. The Council rejects this proposal, because it appears that it would serve only to shift the sources of funding for hatchery power, rather than to protect, mitigate or enhance hatchery fish. [See 16 U.S.C. 839b(h)(5).] Measures for new hatcheries funded under this program already call for Bonneville funding of operation and maintenance expenses. See Sections 703(f)(1)(B) (Umatilla facilities); 703(f)(2)(C) (John Day acclimation ponds); 703(f)(3) (Yakima out-planting facility), 703(f)(5) (northeast Oregon hatchery); 903(g)(1)(A) (Colville hatchery); and 903(g) (various resident fish facilities). In addition, the applicant did not explain why Bonneville funding of power expenses at existing hatcheries would not be in lieu of expenditures authorized or required from other entities under other agreements or provisions of law. [See 16 U.S.C. 839b(h)(10)(A).]

704(b)/WDG-1. The application called for Bonneville funding of the development of habitat preference curves for trout, steelhead and coho. The Council rejects this application. The Council adopted measure 1103(a)(1), which requires hydroelectric developers in the basin to mitigate harm to fish, including identifying and maintaining adequate instream flows for all life stages of fish. This measure should be more effective and less costly than the proposed measure. [See 16 U.S.C. 839b(h)(7)(C).] With respect to resident fish, measure 903(f)(1) specifies criteria for consideration of resident fish amendments. Proposed projects must be supported by documentation of or agreement on losses attributable to the hydroelectric facility at issue; evidence that significant biological gains will occur from the project; and evidence that the project will not result in significant conflict with anadromous fish restoration efforts. The application was deficient on all three points.

704/YIN. This application proposed adding a measure to program Section 703 to have Bonneville fund design and construction of adult passage facilities at Castille Falls on the Klickitat River. That project provides an opportunity to answer questions on adult passage, habitat use, colonization and hatchery supplementation, as well as to provide additional harvest benefits. The Council rejects this application because the proposed project already is in the program in the Appendix A Table: Planning Inventory of Enhancement Projects (formerly in Section 704(d)(1), Table 2) for consideration in subbasin planning. [See 16 U.S.C. 839b(h)(7)(C).]

704(d)(1)/USFS-4. The Council rejects the McComas Meadows land purchase portion of this application because any land acquisition for the purpose of wildlife mitigation should be submitted through mitigation plans, as specified in Section 1003. The Council believes the Section 1003 process is more effective than this application in linking wildlife mitigation to hydropower impacts, as required by the Northwest Power Act, because wildlife losses need to be identified before mitigation proposals can be determined adequately. [See 16 U.S.C. 839b(h)(5) and (7)(C).]

704(d)(1)(A)-(D)/PNUCC. In this application PNUCC proposed that feasibility studies be conducted on tributary passage and habitat improvement projects prior to Bonneville funding, until planning objectives are adopted by the Council. PNUCC explained that it is concerned that projects in the Section 704(d)(1) table (1984 program) were adopted with "minimal supporting information" and the existing measure assumed "automatic" funding by Bonneville. The Council changed program sections related to habitat and tributary passage projects. [See program Sections 703(d)(1), 1403 (action item 4.2) and the Appendix A Table: Planning Inventory of Enhancement Projects. The Council maintains these changes would be more effective than the PNUCC proposal. [See 16 U.S.C. 839b(h)(7)(C).] The Council has concluded that: a) the projects in the table in Appendix A and not in action item 4.2 should be considered only as part of an inventory in system planning; and b) once the Council adopts a system plan, project funding will be consistent with that plan. See program Sections 205, 703(d)(1), 1403 (action item 4.2), Appendix A. The Council believes those changes would better ensure that ratepayer funds are spent on well-considered projects. If PNUCC is convinced that specific projects in the Appendix A table are not supported adequately, it may propose their deletion in amendment proceedings.

SECTION 800: RESIDENT FISH (Section 900 in 1987 program)

800/ODFW. The Council rejects this amendment application, which requested Bonneville funding for a study to determine how best to mitigate adverse impacts of hydropower development on trout production and fisheries caused by impoundment of the Middle Fork Willamette River by Lookout Point Dam. This application failed to document or show an agreement on resident fish losses attributable to the hydroelectric facility at issue, as required by Section 903(f)(1). Consultations with the project operator (Corps) and the applicant (ODFW) have shown that there is disagreement over whether mitigation for losses has occurred. For this reason, the Council cannot determine whether or not the proposed amendment addresses effects of the development, operation and management of Lookout Point Dam. [See 16 U.S.C. 839b(h)(5).] In addition, the applicant did not provide evidence that the proposal would not conflict with restoration of salmon and steelhead, as required by program Section 903(f)(1).

804(b)(1)(A)/MDFWP. The application would have modified former program Section 804(b)(1)(A) (now 903 (b)(1)) to limit draw-down to flood control purposes only at Hungry Horse and Libby reservoirs, and even then only in years of high runoff (about 20 percent

of all years). MDFWP requested that the Council table this amendment until 1988 in order to complete modeling analysis of Hungry Horse and Libby reservoirs. MDFWP may resubmit its application later.

804(e)/IDFG-1. This application called for the construction of an upstream resident fish ladder on an existing irrigation diversion to open six to seven miles of habitat in Pritchard Creek (South Fork Snake River) for migratory cutthroat trout. IDFG, the applicant, withdrew this amendment during the comment period on the Draft Amendment Document because the project already has been funded by other sources.

804(e)/IDFG-2. This application called for the construction of an upstream resident fish passage facility and downstream fish screen and bypass facility at the Palisades Creek irrigation diversion on the Snake River. The Council rejects this amendment application because it did not address directly the effects of the development, operation and management of the hydroelectric system. [See 16 U.S.C. 839b(h)(5).] The project would have addressed resident fish damage caused by an irrigation facility.

804(e)/OT. The Council rejects this amendment application which requested Bonneville funding to provide riparian habitat improvement and pool construction on the upper Metolius River. The Council rejected a similar amendment application in 1984 because there was insufficient documentation both of the biological benefits of the proposed project and of the nature and extent of unmitigated losses attributable to hydropower development and operation to be addressed by the project. The same deficiencies applied to the 1986 application. In addition, the requirements of former program measure 804(e)(16) (now 903(f)(1)), pertaining to resident fish projects, were not met. Specifically, the applicants failed to: a) document or show agreement on resident fish losses attributable to the hydroelectric facilities at issue (hydroelectric projects on the Deschutes River), b) provide evidence that significant biological gains will be achieved by the proposed expenditure, or c) provide evidence that the project will result in no significant conflict with efforts to restore anadromous fish. As a result, the Council is unable to conclude that the best available scientific knowledge shows that the amendment would protect, mitigate and enhance fish affected by hydropower operations and development. [See 16 U.S.C. 839b(h)(5), (6)(B).]

804(e)/WDG. This application requested Bonneville funding for design, construction, operation and maintenance of nursery ponds for smallmouth bass near the Hanford Reach of the Columbia River. The Council rejects this amendment application because the Council could not determine that the proposal would protect, mitigate and enhance fish (see 16 U.S.C. 839b(h)(5)); that the proposal was based on and supported by the best available scientific knowledge (see 16 U.S.C. 839b(h)(6)(B)); or that it would complement the existing and future activities of the tribes and fish and wildlife agencies. [See 16 U.S.C. 839b(h)(6)(A).] It is uncertain whether smallmouth bass prey on salmon and steelhead. During the comment period on the Draft Amendment Document, WDG submitted additional information to the Council on the relationship between smallmouth bass and salmon and steelhead. The Council found this information inconclusive on the overall relationship between smallmouth bass and salmonid species.

SECTION 900: YAKIMA RIVER BASIN (Section 800 in 1987 program)

900/YIN-1. This application requested Bonneville funding for a study of hatchery supplementation methods for steelhead in the Yakima River Basin. Such needs already are covered more comprehensively under existing program measures, such as in Sections 206(b)(1)(D), 703(f)(3) and 703(h)(1). The Council rejects the application on the basis that it would be less effective than existing program measures. [See 16 U.S.C. 839b(h)(7)(C).]

900/YIN-2. This application requested continued Bonneville funding of a spring chinook study in the Yakima Basin. Such a project should be considered in the context of program Sections 200, 703(f)(3) and 703(h)(1). The Council rejects this recommendation on the basis that measures already in the program address needs for this type of study in a broader way. [See 16 U.S.C. 839b(h)(7)(C).]

900/YIN-3. This application requested Bonneville funding for monitoring of adult and juvenile fish migration at Roza and Prosser dams, two major points in the Yakima drainage. The Yakima outplanting facility under Section 703(f)(3) already calls for this and other monitoring to determine the success of supplementation. The Council

rejects this application on the basis that it would be less effective than measures already in the program. [See 16 U.S.C. 839b(h)(7)(C).]

903-904/COY. This application called for the Council to evaluate the results of a site-feasibility study on Rattlesnake Creek proposed for development as a municipal and industrial water supply for the City of Yakima. The Bureau of Reclamation has investigated new storage sites in the Yakima Basin since 1979. This site was not on its list of preferred alternatives because of its small size. However, the Bureau indicated that this site could be considered in the study if its fish and wildlife problems were resolved. State fish and wildlife agencies and the Yakima tribe opposed the site because the area is known to be of high value for wintering wildlife and to be inhabited by anadromous fish. The Council rejects this application because it would not protect, mitigate or enhance fish and wildlife or complement the agencies' and tribes' existing and future activities. [See 16 U.S.C. 839(h)(5) and 16 U.S.C. 839(h)(6)(A).]

904(a)(4)(B)/FOE. This application called for adding a completion date for water management plans in the Yakima River Basin. The Council strongly supports development of water conservation plans as complementary to the efforts of the hydropower ratepayers in undertaking major off-site enhancement projects in the Yakima River Basin. [See 16 U.S.C. 839b(h)(8).] The Council agrees with the proponent that completing water conservation plans as soon as possible is an important objective. However, Congress assigned responsibility for development of conservation plans, including setting deadlines for such plans, to the Secretary of the Interior, under Public Law 96-962 and Public Law 97-293. The Council rejects this amendment because inclusion of a deadline in the Council's program would not address effects of hydroelectric facilities. [See 16 U.S.C. 839b(h)(5).]

904(d)/WG. This application proposed the installation of diversion control structures in the Yakima River. However, the applicant provided no documentation of expected biological benefits from the proposed measure. The Council rejects it because the Council cannot conclude that the recommendation would protect, mitigate or enhance fish and wildlife, and that it would not impair passage and spawning. [See 16 U.S.C. 839b(h)(5).]

SECTION 1000: WILDLIFE

1004(b)-(d)/PNUCC. This application was submitted by PNUCC to revise the current Section 1003 planning process for developing programs for the protection, mitigation and enhancement of wildlife resources. The application called for wildlife mitigation plans to complement and to be coordinated with other existing wildlife management plans, deletion of loss statements, and requirements for consensus and negotiation by parties at each stage of the planning process. The Council rejects this application. The current Section 1003(b) was amended in 1984 in response to recommendations submitted by PNUCC and the wildlife agencies and tribes. Those recommendations were adopted to restructure and clarify the planning provisions in Section 1003(b). Under the current program, Bonneville has spent nearly \$3 million and funded loss statements and mitigation plans for over half of the federal projects in the basin. Further, the Council added wildlife mitigation plans into the program, using amendment proceedings to allow for substantial public review of each wildlife plan. The existing program already recognizes the need for coordination and negotiated agreements. [See Sections 1003(b)(5), 1203(c).] Requiring "consensus" could, in effect, give ratepayers veto power over wildlife programs beyond the terms of the Northwest Power Act. For these reasons, the Council has concluded that the proposed amendment would be less effective than the adopted recommendations in protecting, mitigating and enhancing wildlife and their habitat to the extent harmed by hydropower operations and development. [See 16 U.S.C. 839b(h)(7)(C).]

1004(e)/PF. This application requested that Bonneville cooperate in the regional recovery of the peregrine falcon. The Council rejects this amendment because the current fish and wildlife program (Section 1003(b)(3)) already contains a mechanism for including the needs of peregrine falcons (or other species) in wildlife mitigation plans being developed by the wildlife agencies and tribes for individual hydroelectric projects. [See 16 U.S.C. 839b(h)(7)(C).] The program mechanism is more effective in tying mitigation to the hydropower-related losses attributable to each project and in encouraging development of mitigation packages of individual projects that offer benefits to more than one species. The Council encourages the wildlife agencies and tribes to consult with the Peregrine Fund, Inc., during

the development of specific wildlife mitigation plans and agreements to incorporate, if appropriate, recovery plans for the peregrine falcon.

SECTION 1100: FISH AND WILDLIFE COMMITTEE(Deleted in 1987 program)

None

SECTION 1200: FUTURE HYDROELECTRIC DEVELOPMENT(Section 1100 in 1987 program)

None

SECTION 1300: COORDINATION OF RIVER OPERATIONS
(Section 1200 in 1987 program)

1304(f)/CRITFC. This application proposed that the Council establish a formal process for determining the cause of delays by implementing agencies in carrying out program measures. The Council appreciates the applicant's concerns and agrees that resolving problems in program implementation is important. Currently, both the Council and its staff frequently respond to telephone calls, attend meetings, arrange consultations, and answer correspondence related to implementation problems. The staff also produces detailed periodic status reports on implementation of specific program measures and brings significant implementation problems to the attention of Council members. In addition, the "round-table" process in Sections 204(g) and 1403, action item 6.9, also should respond to major problems in program implementation. [See also program Section 1403, action items 10.4 and 10.5.] The Council believes these measures more effectively respond to the problem identified by the applicant, and therefore rejects this application. [See 16 U.S.C. 839b(h)(7)(C).]

SECTION 1400: AMENDMENTS
(Section 1300 in 1987 program)

None

SECTION 1500: FIVE-YEAR ACTION PLAN (Section 1400 in 1987 program)

1504(39.6)/NRIC. This application proposed that the Council conduct a Bonneville-funded study of power revenues forgone due to flood control, recreation, irrigation and other uses of the federal hydropower system. The Council rejects this application because the proposed study would not protect, mitigate and enhance fish and wildlife. [See 16 U.S.C. 839b(h)(5).] Moreover, the amendment application called for hydropower ratepayer funding of a study that would go beyond the effects of hydropower development and operation, in conflict with the congressional direction that "Consumers of electric power shall bear the cost of measures designed to deal with adverse impacts caused by the development and operation of electric power facilities and programs only." [See 16 U.S.C. 839b(h)(8)(B).]

1504(42.3)/CBFWC. This application asked the Council to amend the program to call on Bonneville to develop "enforceable conditions" for inclusion in Bonneville's Long-term Intertie Access Policy. The Council rejects this recommendation because it would be less effective than adopted recommendations for the protection, mitigation and enhancement of fish and wildlife. [See Northwest Power Act, Section 4(h)(7)(C).] Section 1203 of the program already calls on Bonneville to be consistent with the Columbia River Basin Fish and Wildlife Program in making intertie arrangements. In addition, the Council believes the two problems that most concerned the proponents of this recommendation — accelerated installation of bypass systems at mainstem federal projects and FERC licensing of new small hydroelectric projects — can be approached directly. See program Sections 403 and 1403, action item 3 (development of bypass systems), and Section 1103 (FERC conditions on new hydroelectric development).