

to 6 percent by 2015. Stated another way, these estimates predict that typical Northwest monthly electricity bills will increase by about \$2 a month by 1997 and a total of \$3 a month in 2015, to pay for the additional salmon measures called for in this program.

Additional cost analysis is included in Appendix B. Those costs are reported in leveled dollars.

1.3C Regional Funding and Staffing

Because it is a regional program to rebuild weak fish and wildlife populations, the Council's program calls for participation and funding by state and federal entities and others.

All levels of government must bear responsibility for adequately funding and staffing fish and wildlife rebuilding measures, or run the almost certain risk that the recovery effort will be delayed, with potentially disastrous results.

Until now, most fish and wildlife rebuilding costs have been borne by electric power consumers through the Bonneville Power Administration pursuant to the provisions of the Northwest Power Act. To the extent that measures -- including off-site measures and programs -- respond to the impacts on fish and wildlife caused by the region's hydroelectric system, ratepayer reimbursement is appropriate. But these fish and wildlife populations were diminished, and rebuilding measures are required, because of a variety of other causes. The costs of responding to these other causes should be shared by all responsible parties. The Council will work with the states, Bonneville and other federal agencies to clarify funding responsibilities.

The Council intends to make cost-effectiveness an important part of the program. A successful program is one that provides permanent restoration of fish and wildlife populations at the lowest cost. Such a program cannot be restricted to any one life stage, but must comprehensively include all stages in fish and wildlife life cycles. Short-term, least-cost calculations are not part of this plan, but aiming for long-run success is.

To assess measures that will have the greatest level of biological effectiveness relative to the regional costs incurred, the Council shall review

and acknowledge all cost-effectiveness analyses submitted to the Council and related to the program.

1.4 COUNCIL COMMITMENTS

The Council finds this program to be consistent with the purposes of the Northwest Power Act. The Council has evaluated the measures included in this program on the basis of the recommendations, supporting documents, consultations and public comment contained in its record. It has determined that the measures will protect, mitigate and enhance fish and wildlife affected by the development, operation and management of hydroelectric facilities located on the Columbia River and its tributaries, while assuring the Pacific Northwest an adequate, efficient, economical and reliable power supply. The Council also has determined that these measures meet the list of program requirements contained in Section 4(h)(6) of the Act.

The Council is committed to a stringent program of monitoring and evaluating progress to ensure that the region's investment in fish and wildlife pays off. Rebuilding targets and performance standards are being instituted to provide explicit means of measuring progress. The Council will modify or eliminate activities that do not provide sufficient progress toward stated goals and objectives, and will consider other actions.

In comments on drafts of this plan, several parties have raised concerns about the effects that drafting upriver storage reservoirs for salmon flows could have on resident fish and wildlife in headwater areas. The Council does not intend to address the environmental problems of salmon by indiscriminately shifting environmental problems to upriver areas. It is committed to avoiding such impacts as much as possible, and to monitoring and evaluating them should they occur. Section 903(b)(1) of the 1987 Fish and Wildlife Program has been included in the revised program. See Section 10.3A.

Other comment received in public review of this program made it clear that the region is divided over the scientific merits of some major measures

to rebuild fish populations. Three issues that remain intensely debated are the relationship of increased flows to fish survival, transportation and the proper role of supplementing wild and naturally

spawning fish populations with hatchery-reared fish. These will be examined closely under the Council's program.

The Council also strongly believes that the region must work to improve its understanding of the interdependence among fish, wildlife and human activities, such as power system operations, harvest, water use and land management.

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- determine and analyze the probable effects of drawdown limits on the power system and flood control.

Relevant Parties

2.2E.5 Fund, as a high priority, all measures in the program that address reservoir operations, such as development of biological rule curves and determination of operational mitigation actions. These measures should be completed by December 31, 1996.

2.2E.6 In determining whether to establish biologically based constraints on hydroproject operations, and in determining whether to adopt any proposed project-specific constraints, the Council will review proposals and documentation against the following criteria:

- Protection and rebuilding of weak native fish stocks and those stocks that are resident fish substitutions under this program.
- Protection of tribal rights to fish at usual and accustomed fishing places and ceded areas.
- Integration with power and flood control rule curves to share the consequences of low water years.
- Availability of satisfactory peer-reviewed science substantiating the linkages

between such project constraints and protection of the stocks at risk.

- Effects elsewhere in the Columbia River system, including but not limited to effects on other biological species, on hydropower and on other uses of the river.

Fishery Managers

2.2E.7 Address biological trade-offs between resident fish and wildlife species affected by upriver reservoir releases and anadromous species affected by flow augmentation. Report to the Council in April 1995.

2.2F Budget Planning Target for Resident Fish and Wildlife

Funding for resident fish and wildlife mitigation, having proceeded at low levels in the past, will be accorded a higher percentage of budget outlay in the future.

Council and Bonneville

2.2F.1 The resident fish section of the program contains specific projects that should be implemented. These projects should be completed in rank order over the next eight years as outlined in the measures-- by the end of the year 2003. Each year, the Council will review the annual implementation plan and work with Bonneville in its budget planning

process to ensure implementation of
the Council's program.

Beginning in Fiscal Year 1996, Bonneville in its fish and wildlife project budget will allocate not less than 15 percent to resident fish and not less than 15 percent to wildlife. These figures are contingent upon enough approved Council projects to utilize the described budget allocation. The Council will review this budget allocation in 1996, after the resident fish loss assessments are completed.

In setting these funding levels for resident fish and wildlife, the Council does not encourage selective or slowed implementation of anadromous fish measures, nor does it expect unilateral decisions to amend or materially alter such measures. Full and efficient program implementation remains critical if the program is to do more than react to the Endangered Species Act.

2.2G Funding for Actions that Address Transboundary Species

In general, where mitigation measures are designed to benefit U.S. and Canadian populations, U.S. ratepayer funding should be in proportion to U.S. benefits.

Relevant Parties

2.2G.1 The Council calls for the development, funding and implementation of agreements between the fish and wildlife managers on both sides of the U.S./Canada border that recognize the mutual benefit of protection, mitigation and enhancement for transboundary species. Bonneville and the U.S.

fish and wildlife managers should negotiate with Canadian entities through the appropriate channels to determine the U.S. share of funding on a per-project basis. Protection, mitigation and enhancement of transboundary stocks includes, but is not limited to, agreements about the management of water quantity and quality, such as reservoir operations, storage activities, instream flows and pollution control/abatement.

2.2H The Need to Learn from Implementation

In forging a program to address the needs of fish and wildlife in the Columbia Basin, the region faces the problem of resolving these facts: 1) prompt action must be taken to arrest the declines in many populations; and 2) the scientific basis for many actions is limited and often conflicting. This conflict is recognized in the Power Act. Congress directed the Council to use the best *available* scientific information and not to await scientific certainty prior to acting.

Reflecting this charge, the Council has taken, and will continue to take, a number of significant actions on the basis of the available, and often limited, scientific information. The Council continues to recognize the need for prompt action despite scientific uncertainty. However, the region has made unsatisfactory progress on coupling these actions with evaluation to allow us to learn from their implementation. The Council emphasizes the need to improve the scientific basis for the program and to *learn* from the implementation of the program. This is reflected in the incorporation of the

principle of adaptive management as a
part of the 1987 Fish and Wildlife

Program. The Council continues to find that this technique is the only rational way to deal with the conflict described above. Further, the Council expects that monitoring, evaluation and learning protocols will be in place and must be an integral part of planned actions about which there is significant scientific uncertainty.

2.2I Rulemakings

Council

- 2.2I.1 Henceforth, the Council rulemakings will facilitate a system-wide approach that will assure that decisions made will take into account potential conflicts between measures.

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address progress, problems and issues regarding program implementation. This group will review the annual implementation work plan and the annual program monitoring report. It will make recommendations to the Council by July 31 of each year. Meetings of the Basin Oversight Group will focus on needed actions and implementation problems, not routine reporting. All other committees identified in this program will coordinate with the Basin Oversight Group.

- 3.1A.2 Consult as a full Council on a quarterly basis with the directors of the fishery managing agencies, and on a government-to-government basis with the leadership of the Columbia River Basin tribes. The Council expects the consultations will focus on program development, modification and implementation. In particular, efforts will be directed at expediting measures to improve the survival of the basin's anadromous fish, resident fish and wildlife populations and resolving any disputes that are hampering expeditious program implementation. As part of the consultations, the Council will also encourage the agencies and tribes to identify and resolve differences in their respective positions on Columbia River Basin fish and wildlife issues. The Council further expects regular contact will be maintained between the staffs of the Council and the agencies and tribes.

3.1B Implementation and Monitoring

As the region moves forward to realize the ambitious goals of the fish and wildlife program, it will pursue two closely related parallel paths. One is the implementation path -- that is, taking specific actions identified in the annual implementation work plan. This path will include steps to address uncertainties and refine actions over time. The second path is evaluation. The evaluation path will monitor overall program implementation, evaluate

the effectiveness of actions taken, and judge their scientific merits. One outcome will be an annual assessment of the program's performance -- the annual program monitoring report. This report can be used to determine the need, if any, for mid-course corrections.

A key component of program implementation is feedback, through implementation of actions and program monitoring, to facilitate the refinement of the program over time. For this, the program framework (described in Section 4) will act as a yardstick for evaluating the performance of the program.

There are many areas where current information is incomplete because we are unable to measure some key variables and because of the possibility of unforeseen events. The Council expects to revisit the schedules and targets, as necessary, based on information gathered by the monitoring program and evaluation of implemented actions. If progress toward the performance standards or meeting rebuilding schedules falls significantly short, the Council will revisit all or part of the program.

Bonneville's implementation of this program to date has been guided by an implementation planning process negotiated with the fish and wildlife agencies and tribes. In this section, the Council calls for this implementation process to be broadened to include land and water managers and other interested parties, to produce an annual implementation work plan and a monitoring report, and to provide for independent scientific review of the program and its implementation. The annual implementation work plan should reflect program goals and principles and any prioritization of measures developed by the Council.

The Council adopts the following implementation planning process in order to clarify the respective roles of the Council, Bonneville, the fish and wildlife managers and others in implementing the Council's program.

Council and Bonneville

- 3.1B.1 The Council and Bonneville will negotiate annual funding levels for the fish and wildlife program. This will

include three categories: the amount for
Council oversight of the program, the

amount for Bonneville oversight of the program, and the amount available to fund fish and wildlife measures approved by the Council. The Council and Bonneville will communicate this latter amount to member agencies and tribes of the Columbia Basin Fish and Wildlife Authority.

Fish and Wildlife Managers and Council

- 3.1B.2 The state, federal and tribal fish and wildlife managers, acting together through the Columbia Basin Fish and Wildlife Authority or some other institution or arrangement of their choice, are to recommend to the Council criteria for prioritizing proposed projects for funding. The Council will review the fish managers' recommended criteria in a public review process in which others may comment on the recommended prioritization criteria. The Council will then adopt criteria for prioritizing projects for funding and communicate those criteria to the fish and wildlife managers.

Fish and Wildlife Managers

- 3.1B.3 The state, federal and tribal fish and wildlife managers, acting together through the Columbia Basin Fish and Wildlife Authority or some other institution or arrangement of their choice, will annually develop a list of projects and estimated budgets, that represents the fish and wildlife managers' views on what it will take to fully implement the Council's program. The list should include anadromous fish projects, resident fish mitigation and resident fish substitution projects and wildlife projects. In developing the project list and estimated budgets, the fish and wildlife managers are to consider projects and estimates proposed by the managers, the

Council, the general public and others. The fish and wildlife managers will use the prioritization criteria adopted by the Council to prioritize all the projects on the project list and recommend funding for a set of projects that matches the funding level negotiated by the Council and Bonneville. The fish and wildlife managers will submit the recommended prioritized project list and a workplan to the Council for review and approval.

Fish and Wildlife Managers and Council

- 3.1B.4 Utilizing its public process, the Council will review the prioritized project list and workplan for consistency with the program. If approved, the Council will forward the list to Bonneville for funding consistent with the negotiated budget. If not approved, the Council may revise and adopt an alternative project list and workplan for submission to Bonneville or send the list and workplan back to the fish and wildlife managers with comments. The fish and wildlife managers may then modify the list and workplan and resubmit them to the Council. This process may continue until the fish managers submit a project list and workplan that receives Council approval.

- 3.1B.5 The Council will use the fish and wildlife managers' project list to help determine program funding levels necessary to fully implement the program. The Council will then use this information to negotiate fixed annual funding levels with Bonneville for five years into the future.

Bonneville

- 3.1B.6 Consistent with the annual funding level agreed to between Bonneville and the Council, fund the prioritized project list

and workplan approved by the Council
as expeditiously as possible.

3.1B.7 Conduct a review to determine if internal costs for program oversight can be reduced, resulting in savings that can be added to the fish and wildlife program budget. Report findings to the Council by September 1995.

Bonneville, Fish and Wildlife Managers and Others

3.1B.8 Expand the implementation planning process so that participants coordinate implementation of all program measures, including research. Participants should include the Council, the National Marine Fisheries Service, fish and wildlife agencies, Indian tribes, Bonneville, river operators, land and water managers, utilities, citizen groups and others.

3.1B.9 The annual implementation work plan should include actions to address key scientific uncertainties associated with the program and its measures (see Section 3.2C). In the course of its review of the workplan, the Council will review the list of key uncertainties and the manner in which the workplan proposes to address these uncertainties.

Federal Government, States and Tribes

3.1B.10 Review measures in this program that call for collective action by the states, tribes and other entities. Designate the appropriate entity to coordinate implementation of each measure. The designated entity should be responsible for preparing work plans and reporting progress. By June 30, 1995, report to the Council these designations. Where sources of funding are not identified, discuss the capabilities of the states, tribes and other entities to implement the measures with available resources. For each measure that cannot be met with available resources, and for which there

is clearly no obligation of the Bonneville Power Administration under the Northwest Power Act, propose:

- an alternative funding source;
- the estimated cost for implementation; and
- the legal authority for allocating the necessary funds from the proposed source.

Federal Energy Regulatory Commission

3.1B.11 For measures addressed directly to Federal Energy Regulatory Commission licensees, or that are otherwise relevant to Commission decision-making, take measures into account to the fullest extent practicable.

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4.1A Salmon and Steelhead Rebuilding Principles

The Council has adopted as part of its overall goal the doubling of the total number of adult salmon and steelhead in the Columbia Basin as fast as possible without further loss of biological diversity among or within anadromous and resident fish populations.

The doubling goal applies to the basin as a whole. It may not be possible or desirable to double the populations of all species in all subbasins. Specific means and locations for increasing production will be identified in future planning.

The time needed to double the runs will depend on a number of factors, including the program policies for mainstem survival, harvest management and fish production, and on further assessment of production opportunities. The Council recognizes that any action has the potential for causing some genetic change in the population. In establishing biodiversity as part of its goal, the Council states its desire to avoid adverse genetic change to the maximum extent practicable, to consider genetic impacts as important criteria for selection of measures, and to monitor changes in genetic and life history diversity as measures are implemented. This does not preclude carefully designed, controlled and monitored supplementation programs.

Except where human-induced habitat changes have produced increases in some species to the detriment of salmon and steelhead (for example, squawfish), efforts to meet these goals for salmon and steelhead should not occur at the expense of other native species and wildlife. Because most of the loss of salmon and steelhead production as a result of hydroelectric development has occurred above Bonneville Dam, the Council will continue to focus its efforts on this area.

The Council recognizes that achieving its goal will require actions on all fronts over many life cycles of salmon and steelhead. In the short term, it will require increased attention to the need to conserve biological diversity and halt the decline in many populations. This may occur at the expense of actions that might provide greater short-term increases in numbers, but could possibly jeopardize the biological health of the resource in the long

term. It will require increases in mainstem passage survival, improved habitat and production practices, and diligent management of harvest.

To help focus efforts toward this goal, seven principles should be used to evaluate activities in subregional planning (see Section 3.1D) and other program processes:

1. Priority should be given to activities that aim to rebuild weak upriver populations, including populations listed under the Endangered Species Act.
2. Program activities should pose no appreciable risk to biological diversity among or within fish populations (including resident fish), with the exception of principle number five, below. The best available data and assessment tools should be used to evaluate biological risk before determining whether to proceed, and activities should be followed-up with monitoring and evaluation.
3. The region should approach habitat and production activities from a total-watershed perspective, not as activities that occur in isolation from land and water conditions in watersheds. Special priority should be given to projects that are part of model watersheds or other coordinated watershed programs, especially those with local community involvement.
4. While the bulk of the region's attention is currently focused on threatened and endangered stocks, it is important not to lose sight of this region's obligations to fulfill Indian treaties and provide fish for Indian and non-Indian harvesters. Investments and adjustments should be made to provide harvest opportunities in tributaries or other areas and to facilitate rebuilding weak populations.
5. Consistent with the Council's adaptive management policy, priority should be given to activities that address critical uncertainties and/or test important hypotheses. Activities should be designed as experiments so that the results fill in the

region's understanding of salmon and their survival requirements. Even a measure that poses risks for a population may be acceptable if the potential learning benefits are high enough.

6. Because of concerns over the basin's salmon carrying capacity, the effects of hatchery-produced fish on those that spawn in streams, and the cost of hatcheries, new salmon production facilities generally should not be constructed unless it is clear that the need for fish cannot be met with existing facilities, or a new facility would be a better way to achieve the program's goals.
7. Accord high priority to projects that address peer-reviewed biological objectives.

The subregional process (Section 3.1D) should generate important information on the costs and biological effectiveness of habitat and production measures. This information will contribute to the independent evaluation of program cost-effectiveness by the Independent Scientific Group (Section 3.2B), and be reflected in the annual implementation work plan (Section 3.1B.2).

All of these principles reflect important concerns, but for at least the next five years, the preponderance of the ratepayers' investment should be directed to rebuilding weak stocks. Both the potential biological value of weak stocks and the requirements of the Endangered Species Act suggest that the path to doubling must begin with weak populations.

This weak-stock priority includes populations listed under the Endangered Species Act, but is not limited to these populations. The Northwest Power Act calls for a long-term approach to fish and wildlife mitigation, not simply a reaction to immediate problems. Treaties with Indian tribes and with Canada call for the United States' best efforts to rebuild these populations to self-sustaining, harvestable levels. The Council is committed to this cooperative effort. Moreover, there are many weak salmon populations not listed under the Endangered Species Act. It is in the region's interest to take forceful steps to strengthen these populations before it becomes necessary to list them. Limiting ratepayer

investments to threatened or endangered species in these circumstances is simply an invitation for new Endangered Species Act petitions.

While the preponderance of the ratepayers' investments should be directed to weak stocks, weak stocks should not be the exclusive focus of the program. Over the past decades, Indian tribes and other harvesters have given up harvest on species after species, and that disturbing trend appears to be continuing. For tribal fishing rights to have meaning, there must be enough fish in the rivers to allow a reasonable harvest. Upriver fishers are entitled to salmon populations that are more than museum specimens. In the long term, as weak stocks are rebuilt, harvest opportunities may be expanded throughout the basin, consistent with rebuilding targets. In the short term, the region should also make investments and adjustments to provide harvest opportunities in tributaries or other areas where there will be no significant negative effect on weak populations.

4.1B Basis for the Salmon and Steelhead Goal

The Northwest Power Act directs the Council to develop a Columbia River Basin Fish and Wildlife Program to protect, mitigate and enhance fish and wildlife "affected by the development, operation and management" of the hydropower system in the basin. Essential to this definition is an understanding of the extent to which salmon and steelhead have been affected by the hydropower system. In 1985, the Council began gathering information on the extent and causes of the declining numbers of salmon and steelhead in the basin. In 1985 and 1986, the public reviewed and debated the nature and limitations of that information. (The results of the Council's efforts have been published in a separate volume entitled, *Compilation of Information on Salmon and Steelhead Losses in the Columbia River Basin*, document number 87-15A.)

After compiling information on salmon and steelhead losses, the Council solicited extensive public comment on the contribution of the hydropower system to declines in run sizes. Based on the losses information and on public comment, the Council identified alternative ways to estimate

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temperature improvement measures contained in this program will have a substantial impact on the operations of this system.

Given more time and experience, it is likely that the following measures can be refined, resulting in greater operational efficiency and better coordination between the needs of fish and other uses of the river.

The Council welcomes proposals from river operators, especially those proposals that emerge from the river operations process described below, for better ways of providing equivalent amounts of water for salmon and steelhead within time frames specified in this program. Any such proposals should be submitted to the Council and, on approval, implemented.

The Council expects that river operation changes for fish will be in accordance with the following measures as they are now written. The Council will carefully monitor these operations and will welcome suggestions from all interested persons on how they can be improved. Each year, until further notice, the Council will review the operations. At that time, it will determine whether these measures should be revised to provide the intended benefits to fish in the most practical and efficient manner.

5.1A Fish Operations Executive Committee

Fish Operations Executive Committee

Council

5.1A.1 Initiate an annual policy and technical process to address flow and temperature regimes and reconcile measures described below to protect salmon and steelhead. The process will be managed by the Fish Operations Executive Committee, which will be appointed by the Council and made up of senior management representatives of the Council, as well as power and fishery interests.

5.1A.2 The Committee should produce a detailed, annual implementation plan for carrying out its work. The committee should produce the operating plan by March 31 of each year and will need to begin in the preceding year to complete its work. Insofar as practical, the committee should consider matters such as spill, transportation, the Corps' Fish Passage Plan, the fishery agencies and tribes' Detailed Fishery Operating Plan, recommendations from the Ad Hoc Committee of the Columbia Basin Fish and Wildlife Authority, the coordinated plan of operation for flow augmentation (Section 5.1C), annual operating plans for the Non-Treaty Storage Fish and Wildlife Agreement, planning for coordinated system operations, Idaho Power Company's proposed operations under its weak stock plan, water identified by the Snake River Anadromous Fish Water Management Office, spring and fall trade-offs, research and monitoring results and other mainstem passage matters.

In its meetings, the committee should identify all water available in a particular year and plan for its use consistent with Council specified reservoir constraints and anadromous fish measures. During low flow conditions when the monthly average flow equivalent¹ of 85,000 cubic feet per second in the Snake River cannot be provided for the full migration period, flows should be distributed to protect a portion of all known naturally reproducing stocks. The plan will have the flexibility to move flows between May and June, if such shaping is more likely to achieve the intent of this

¹ "Flow equivalent" means the flow level required to achieve the same water particle travel time as 85,000 cubic feet per second at average normal pool elevations at all projects. For example, 81,000 cubic feet per second at minimum operating pool elevations is the flow equivalent of 85,000 cubic feet per second at average normal pool levels.

program. If there are conflicting water demands among anadromous species, conflicts should be resolved by the Fish Operations Executive Committee in consultation with the National Marine Fisheries Service. In resolving conflicts, the committee should carefully consider the value of retaining cold water in the Dworshak project to help control temperatures for Snake River fall chinook returning adults.

All alterations in river operations undertaken pursuant to these amendments should consider impacts on resident fish and other species, especially threatened, endangered or native species, and should seek to avoid adverse effects on them.

- 5.1A.3 Develop a procedure to address fish flow operations throughout the migration season, if necessary.
- 5.1A.4 Develop accounting procedures for the use of this water. These procedures will be provided to the Council and other interested parties. Pending development and Council approval of new accounting rules, the provisions set out below (Section 5.1D) will continue to apply. All water supplies acquired under the measures below will be applied to the fish migration.
- 5.1A.5 Manage water supplies for fish in accordance with the annual implementation plan. To assist the full range of stocks migrating in the Snake and Columbia rivers, every effort must be made to shape water stored for fish flow augmentation to the fullest extent practicable. Any proposed deviations from the implementation plan must be approved by the Fish Operations Executive Committee.
- 5.1A.6 In developing the annual implementation plan, the committee shall specifically evaluate tradeoffs between flows needed for anadromous fish and reservoir

operations needed to protect resident fish and wildlife in Columbia Basin storage reservoirs that are federally operated, licensed or regulated.

5.1B Fish Passage Center

Bonneville

5.1B.1 Fund the establishment and operation of a Fish Passage Center, including funds for a fish passage manager position, technical and clerical support and the services of consultants when necessary, as jointly agreed by Bonneville and the fish and wildlife agencies and tribes. This support will assist the fish passage manager in:

- 1) ensuring that anadromous fish, resident fish and wildlife are protected, mitigated and enhanced;
- 2) planning and implementing the annual smolt monitoring program;
- 3) developing and implementing flow and spill requests as related to the water budget volumes, spill criteria and flow targets in the Council's fish and wildlife program;
- 4) coordinating storage reservoir and river operations and evaluating potential conflicts between anadromous and resident fish to ensure that Council-adopted operating criteria for storage reservoirs are met when considering system operational requests;
- 5) identifying when conditions allow for operations in excess of minimum objectives and criteria, so that this situation can be brought to the attention of relevant decision-makers to allocate the operational flexibility to maximize benefits for anadromous fish, resident fish and wildlife;
- 6) monitoring and analyzing research results to assist in implementing the water budget and spill planning and in preparing reports; and

- 7) monitoring and analyzing monitoring and research data to assist in implementing storage reservoir

operating criteria and to better provide for the needs of anadromous and resident fish and wildlife.

5.1B.2 Provide funds to establish a “fish passage manager” position designated by the federal and state fish and wildlife agencies and the Columbia River Basin Indian tribes. The fish passage manager will provide expert assistance to the designated entities in working with the power project operators and regulators to ensure that the Council’s program requirements for fish are made a part of all river system planning and operations. The fish passage manager will be selected for knowledge of the multiple purposes of the regional hydropower system and of the water needs of fish and wildlife, as well as the ability to communicate and work with the fish and wildlife agencies, tribes, project operators, regulators and other interested parties, including members of the public. The fish passage manager will be selected by members of the Columbia Basin Fish and Wildlife Authority and report to the Authority’s executive director. The fish passage manager and the executive director will report as needed and at least annually to the Council on any issues that are raised regarding the Center’s operations, including communications with the fish and wildlife agencies, tribes, project operators, regulators and members of the public. The Council will provide a fish passage advisor on its staff to review the operation of the water budget, to advise the Council on all matters related to fish passage and to assist in resolving fish passage disputes.

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Relevant Parties

5.1D.2 The Council recognizes that the description of the water budget lacks many of the operating details that will be addressed as the water budget is implemented and operating problems occur. Recognizing that operating decisions could influence the effectiveness of the water budget, the Council recommends priorities for competing uses of the hydropower system. Relevant parties should rely on these priorities in their decisions about the hydropower system.

- First: Firm power to meet firm loads.
- Second: Water budget and other flow measures and reservoir constraints.
- Third: Reservoir refill.
- Fourth: Secondary energy generation (beyond that provided in connection with use of the water budget).

5.1D.3 Implement flow augmentation measures within the context of laws related to federal, state and Indian water rights. (See Section 14: Disclaimers.)

5.1D.4 Beginning in 1995, evaluate alternative ramping rates for flow fluctuations at mainstem Snake and Columbia River dams to constrain reductions or increases in total flow per 24-hour period at these projects.

5.2 IMPROVE SNAKE RIVER FLOW AND VELOCITY

Biological objectives:

1) To improve conditions for salmonid production by increasing flow and water velocities, decreasing downstream migration time for anadromous fish and decreasing the quantity of habitat for predatory and competing fish species; and 2) to endeavor to provide inriver conditions to maximize adult fish survival between dams.

Operational objectives:

To endeavor to provide a minimum monthly average flow or velocity equivalent of 85,000 cubic feet per second in all water years, endeavoring to achieve a monthly average flow or velocity equivalent of 140,000 cubic feet per second at Lower Granite at full pool from April 10 through June 20 in all water years. From June 21 through July 31: the objective is to provide a monthly average flow equivalent of 50,000 cubic feet per second and to exceed this flow target in years of higher runoff.

5.2A Performance Standard: Snake River Spring Migrants

Incorporate the measures described below into firm power planning.² Figure 5-1 illustrates the approximate flow equivalent attained when these measures are applied to the historical water record.

Bonneville, Corps of Engineers, Bureau of Reclamation and Other Parties

5.2A.1 Operate the Dworshak Reservoir to improve salmon migration conditions consistent with the measures listed below:

- From January 1 to April 10, in years when Snake River runoff is forecast to be below average, shift system flood control storage space to other Columbia Basin projects.

² Where the Council calls for incorporation of flow or other measures into firm planning, the Council means that the federal project operators and regulators incorporate these measures in all system planning and operations performed under the Columbia River Treaty, the Pacific Northwest Coordination Agreement, and in other applicable procedures affecting river operations, and all parties will act in good faith in implementing these measures as firm requirements.

5.4A Performance Standard: Columbia River Spring Migrants

Through firm power planning, provide 58 thousand cubic feet per second per month (3.45 million acre-feet) of shapeable water. In addition, provide up to 4 million acre-feet of water, subject to conditions specified below. Add to the 4 million acre-feet any additional water from Canadian storage reservoirs that can be dedicated to anadromous fish flows as a result of negotiations and discussions with Canada.

Bonneville, Corps of Engineers, Bureau of Reclamation and Other Parties

5.4A.1 Beginning immediately, operate John Day Reservoir at minimum irrigation pool from May 1 to August 31 of each year. Minimum irrigation pool is the lowest level at which the irrigation pumps drawing from the reservoir will operate effectively. Monitor and evaluate the biological benefits of John Day Reservoir operations so that the Fish Operations Executive Committee can determine in future years how the operations can complement flow velocities and other factors to achieve rebuilding targets. The Council recognizes

that, as was the experience in 1991, under certain conditions a slightly higher elevation may be required and that some daily flexibility is necessary for operation of the reservoir. Other portions of this rule contain measures that will permit irrigators and other users of the John Day pool to operate effectively at lower pool levels. The Council expects the level of the minimum irrigation pool to be lowered as these measures are implemented and that this will be accomplished by 1994. The intent of this provision is that the John Day Reservoir will be operated at the lowest practical level during the spring and summer migrations of juvenile chinook and sockeye salmon.

5.4A.2 Through firm power planning, provide 58 thousand cubic feet per second per month (3.45 million acre-feet) of water at Priest Rapids Dam to be used by the Fish Passage Center consistent with the Fish Operations Executive Committee's annual plan during the period April 15 through June 15.

5.4A.3 When the adjusted April forecast for the January-July runoff at The Dalles Dam is less than 90 million acre-feet, have water in storage and available for juvenile fish flow augmentation by April 30. The appropriate volume is derived from the curve in Figure 5-2 based

on the official April forecast and adjusted
to the National Weather Service 95-

percent confidence level. This volume

Bonneville

5.4A.9 Because of the uncertainty in the supply of out-of-region energy, immediately secure options for one or more resources to augment reduced hydroelectric energy during winter months. If the region is unable to store enough water for any reason other than those specified in Section 5.4A.4, above, immediately begin to acquire the optioned resources called for under Objective 2 of the 1991 Northwest Conservation and Electric Power Plan, or otherwise acquire resources that are consistent with the plan, in an amount sufficient to ensure that the full volume of required water is available in succeeding years. The Council will consult with representatives from all interested parties to determine the proper amount and timing of the acquired resource(s).

5.4B Summer Migrants

Bonneville

- 5.4B.1 During July and August in below-average water years, provide a volume of water from the U.S. Non-Treaty Storage water available in that year to facilitate evaluations described below.
- 5.4B.2 Continue to seek energy exchanges and other energy alternatives with a potential for increasing Columbia River flows in July and August to facilitate evaluations and to improve survival of summer migrants.
- 5.4B.3 [deleted]

Council

- 5.4D.2 In consultation with and approval of the fishery agencies and tribes, immediately undertake a basinwide comprehensive hydrologic, hydraulic geometry and biological analysis to determine appropriate flow duration and magnitude needed to reestablish critical mainstem and estuarine floodplain habitat. As part of the analysis, explore relation of flood control rule curves, as provided in Section 5.4E, and modification of power sales contracts to move the river hydrograph back toward historical timing and duration.

Bonneville

- 5.4D.3 Fund the evaluation in 5.4D.2.
- 5.4D.4 Fund an evaluation of all Columbia River Basin water storage and hydropower facilities to determine the availability of additional velocity improvements or water for mainstem or tributary flow augmentation. The evaluation should include resident fish or other potential endangered species status and impacts. Report to the Council by January 1, 1996.

U. S. State Department

- 5.4D.5 Initiate discussions with Canada to attempt to secure the use of additional water for flow augmentation from Canadian storage reservoirs. Attempt to reach agreement by December 31, 1996. Report findings or progress to the Council at the end of each year.

Bonneville, Corps of Engineers and Bureau of Reclamation

- 5.4D.6 Use any resulting water secured through negotiations with Canada to meet the flow objectives of this program and, in addition, to provide a minimum flow of 120

thousand cubic feet per second at The Dalles Dam during September. These flows should: decrease the migration time of the end of the juvenile subyearling fall chinook migration through the lower Columbia; reduce delay and inter-dam loss, and increase spawning success for adult fall chinook migrating through the lower Columbia; and reduce delay and inter-dam loss, and increase spawning success for adult fall chinook and steelhead.

Corps of Engineers

- 5.4D.7 Maintain Lake Pend Oreille at a level no lower than elevation 2,054 feet, 2,055 feet and then 2,056 feet during the next three winters, which will provide an additional amount of water for Columbia River salmon flows (see Section 10.6E). Any replacement energy for this operation must not come from Columbia River Basin storage projects.

Bureau of Reclamation, U.S. Geological Survey, U.S. Department of Agriculture and Soil Conservation Service

- 5.4D.8 Evaluate the potential for water conservation, water efficiency or other measures in the above-listed agency programs with the most potential to benefit anadromous fish and with the least impact on third parties. Include an evaluation of the potential for using crop rotation programs to facilitate dry-year water leasing activities. Report to the Council.

Bonneville, Corps of Engineers and Bureau of Reclamation

- 5.4D.9 Under the auspices of the Columbia River Water Management Group, continue with the review of, and make recommended improvements to, the

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Section 10

RESIDENT FISH

Resident fish are freshwater fish that live and migrate within the rivers, streams and lakes of the Columbia River Basin, but do not travel to the ocean. Resident fish exist throughout the basin and are particularly important in areas where anadromous fish runs are blocked by natural or manmade obstructions.

Hydroelectric projects have created a number of problems for resident fish. In the natural state, the Columbia River and its tributaries often ran at high volume and velocity and thereby flushed sediment downstream, keeping gravel spawning beds clean. But hydroelectric projects slowed and decreased the flow, allowing sediment to build up over the spawning beds. Sediment particles also have an affinity for chemical pollutants, creating potentially harmful concentrations in the reservoirs and other resident fish environments.

As with anadromous fish, reservoir manipulation may interfere with the flows needed for resident fish spawning, incubation, emergence, rearing and migration. In addition, reservoir manipulations impair the environment for spawning, incubation and rearing of some reservoir-inhabiting species. For example, discharging water from a reservoir lowers the reservoir water level, which may deprive fish eggs of the water they need, diminish the food supply, crowd fish into a smaller aquatic living space, change water temperatures both above and below the dam, and entrain substantial numbers of fish.

The white sturgeon is a species critically affected by hydroelectric development. Biologically an anadromous fish, the white sturgeon is relatively abundant in the Columbia River below Bonneville Dam. However, some populations are now confined to certain stretches of the river above Bonneville because dams have blocked migration. Because of the sturgeon's extended life cycle (approximately 20 years to

spawning size), the white sturgeon may be depleted without an opportunity for quick restoration. Other resident fish species of special

interest include kokanee, bull trout, burbot, redband trout and westslope cutthroat trout.

This section of the program addresses resident fish losses caused by hydropower development and operation, as well as substitutions of resident fish to compensate for losses of salmon and steelhead in areas permanently blocked by hydropower projects. A major challenge in protecting, mitigating and enhancing resident fish, as well as anadromous fish and wildlife, is assembling a program that resolves potential conflicts among demands for power generation and other resource development activities, the need for flows for anadromous and resident fish, and a healthy reservoir environment for resident fish. The Council is confident that the measures contained herein, and those that will be added over time, will achieve this necessary balance.

Under the Council's program, limits will be developed on the drawdown of certain reservoirs, and minimum flow requirements will be set to protect fish and their habitat. Other measures call for using storage water to maintain appropriate water temperatures, streambed protection, artificial propagation, and a variety of studies on fish habitat and on the impacts of hydroelectric operation. The Council has also approved resident fish substitution projects that will contribute to these efforts.

To be effective, the fish and wildlife program must be more than a collection of unrelated measures. Individual efforts must be coordinated, and program measures need to support the ongoing efforts of tribal, state and federal fish and wildlife managers in the basin. All goals, principles, priorities and specific objectives in the program are to be integrated.

10.1 RESIDENT FISH GOAL

The program goal for resident fish emphasizes the long-term sustainability of native fish in native habitats where possible, but also recognizes that where impacts have irrevocably changed the native ecosystem, we can only protect and enhance the ecosystem that remains. This systemwide goal has implications for all resident fish program measures. In general, these measures fall into two distinct categories:

Resident Fish Mitigation: Efforts to address the impacts caused by the construction and operation of the hydropower system.

Resident Fish Substitution: Efforts to address the loss of salmon and steelhead in those areas permanently blocked to anadromous fish as a result of the construction and operation of hydroelectric dams.

Measures in both categories achieve the long-term system goals of protecting, mitigating and enhancing the health and viability of resident fish populations to meet consumptive and non-consumptive needs in the Columbia River Basin.

Accomplishing these goals will require the participation of many parties whose practices now adversely affect the health of the ecosystem, including, but not limited to, hydropower facility operators. The responsibilities of such operators will take into account the losses and gains at each hydropower project to determine whether net losses have occurred.¹ Credit will be given for past mitigation actions associated with each hydropower project. Achieving these goals will necessitate basinwide coordination of all resident fish projects and with other basin activities to ensure consistency with the program's systemwide approach.

Additionally, it is the Council's expectation that these fisheries shall be enhanced to allow for

consumptive subsistence and recreational fisheries for the region's Indian tribes, as well as consumptive and non-consumptive recreational fisheries for sport anglers. The Council recognizes that fishing pressure on inland fish of the Columbia River Basin has increased appreciably since curtailment of ocean salmon fishing seasons.

A number of resident fish populations throughout the basin are depressed to an extent that they require immediate attention. To be effective, the fish and wildlife program must focus on funding measures that provide immediate on-the-ground benefits to fish and wildlife. To that end, the Council has established the following principles and priorities.

10.1A Principles

To promote comprehensive and cooperative watershed management; ecosystem diversity; productivity and stability as integral components of fish management strategies in the Columbia River Basin; and to conserve the natural genetic diversity within native resident fish species, subspecies and unique stocks, the following principles shall be applied:

- Protect, mitigate and enhance resident fish populations to the extent they were or are affected by construction and operation of dams.
- Protect, mitigate and enhance resident fish in hydropower system storage projects to the fullest extent practicable from negative impacts associated with water releases.
- In areas below storage projects, protect, mitigate and enhance resident fish that are affected by altered annual flow regimes, daily load following, temperature modifications and nutrient trapping.
- Substitution is appropriate for lost salmon and steelhead in areas that previously had anadromous fish, but where anadromous fish access is now permanently blocked by hydropower development and where in-kind mitigation cannot occur.

¹ Gains could include those found at the project site (i.e., in the reservoir or immediately below the dam) and also those found away from the project site (e.g., where reservoir raises the water table in the surrounding area and forms pothole lakes amenable to resident fish production).

- Substitution should occur in the vicinity of the salmon and steelhead losses being addressed, but substitution and mitigation measures may occur on or off-site.

Flexibility in approach is needed to develop a program that complements the activities of the fish and wildlife agencies and tribes and that is based on the best available scientific knowledge.

- For substitution purposes, resident fish may include landlocked anadromous fish (e.g., white sturgeon, kokanee and coho) as well as traditionally defined resident fish species.

10.1B Priorities

The Council has the following priorities for Columbia River Basin resident fish. Bonneville shall implement the program consistent with the ranking criteria adopted by the Council from the priorities listed below. (See Section 3.1B.2.)

Accord highest priority to rebuilding to sustainable levels weak, but recoverable, native populations injured by the hydropower system, when such populations are identified by the fishery managers; then to resident fish substitution measures in areas that previously had salmon and steelhead, but where anadromous fish are now irrevocably blocked by federally operated hydropower development. Because these losses have endured mostly unmitigated for more than 50 years, and because in-kind mitigation cannot occur, the Council intends that in any project ranking and selection process, projects satisfying these priorities be clearly distinguished from other projects. The distinction between these two highest priorities is a narrow one, applicable only to marginal choices among such projects.

Accord high priority to measures that meet the following criteria (not in rank order):

- Resident fish projects that also provide benefits for wildlife and/or anadromous fish.
- Populations that support important fisheries. This priority applies to introduced and native species, including trout, sturgeon, kokanee, burbot, bass, perch and others.

- Development of biological and integrated rule curves that will protect resident fish in storage reservoirs.
- Protecting the health of existing resident fish populations.
- Other native stocks that may be at risk due to the construction and operation of the Federal Columbia River Power System.
- Resident fish mitigation and substitution projects for which a showing has been made that all reasonable precautions will be taken, based on the best available scientific knowledge, to not adversely affect habitat for native resident fish and anadromous fish.
- Projects that address biological objectives that have been adopted by the Council.
- Among resident fish mitigation activities, preference will be given to measures that address losses at hydropower facilities for which an assessment of losses and gains is completed and approved by the Council.
- Substitution measures in areas that previously had salmon and steelhead, but where such fish are now permanently blocked by federally licensed or regulated hydropower facilities.

10.1C Biological Objectives

The Council believes that elements of the framework concept outlined in Sections 2, 3 and 4 need to be applied to resident fish as well as to salmon and steelhead. For this reason, the Council calls for the identification of specific resident fish biological objectives and, to the extent appropriate, associated measures and success indicators. The Council also calls for development of specific rebuilding schedules and an associated monitoring program. This approach should ensure that resident fish actions taken under the program are oriented to results.

Biological objectives relate the needs of fish and wildlife to the development and operation of the hydropower system. Hydropower project development and operation has affected resident fish directly or indirectly by affecting flows and temperature above and below the facilities, passage at or within a project, and reservoir

elevations and volumes. Resident fish biological objectives should describe the biological characteristics needed to address these impacts, halt population declines, protect and rebuild populations, and, ultimately, achieve the overall program goals. Resident fish biological objectives should address hydropower-caused losses; they should not be inconsistent with the conservation of genetic and biological diversity, and, henceforth, they should receive peer review before being adopted into the program.

Resident fish program measures are specific actions to be undertaken to achieve biological objectives, with related timetables for achievement. Success indicators for each action/measure would provide a measurable index that relates the resident fish program measures to the type of biological or physical change intended.

Fishery Managers and Council

10.1C.1 The fishery managers are to complete assessments of resident fish losses and gains related to construction and operation of each hydropower facility throughout the Columbia River Basin and submit to the Council for approval. Use existing loss estimates, where available, and accomplish in a consistent manner. Include assessment of and proposed crediting approach for ongoing and past mitigation activities at each project. The Council will review the recommended loss and gain assessments in a public review process and adopt assessments into the program.

10.1C.2 The fishery managers will develop, as soon as possible, detailed biological objectives for resident fish in each subbasin or other appropriate watershed unit, including objectives for harvest and escapement and artificial and natural production, and

submit them to the Council for public review and incorporation into this program. Biological objectives should address any loss and gain assessments that have been adopted under Section 10.1C.1 because the Council will use these objectives to measure progress against the hydropower debt.

Bonneville

10.1C.3 Fund the completion of the assessments of resident fish losses throughout the Columbia River Basin, as called for in Section 10.1C.1, and the development of specific, quantified biological objectives, as called for in Section 10.1C.2. The Council expects Bonneville to act immediately to implement resident fish mitigation and resident fish substitution measures in this program and complete all major actions by 2006. Implementation of resident fish mitigation and substitution measures is not to be delayed pending the completion of loss assessments or the development of specific biological objectives. The Council is convinced that prompt action may forestall Endangered Species Act listings for several species of native resident fish, including kokanee salmon, white sturgeon, bull trout, westslope cutthroat trout and burbot, among others.

10.1D Crediting New and Existing Mitigation

Fish Managers, Bonneville, Corps of Engineers and Bureau of Reclamation

10.1D.1 Initiate consultations by October 1, 1995, to develop a consistent,

systemwide method for determining the amount of credit to be given for existing and future resident fish substitution and mitigation activities undertaken to address the impacts of the federal hydroelectric facilities. The crediting system should reflect the following principles:

- The hydropower system must protect, mitigate and enhance resident fish affected by the hydroelectric facilities of the Columbia Basin. This obligation will be discharged when these effects are fully addressed, i.e., when mitigation actually offsets the loss caused by a hydropower facility and when the operator provides adequate operation and maintenance funding to sustain the mitigation for the life of the hydroelectric project.
- Mitigation agreements may predict a certain level of mitigation, as long as provision is made for funding operation and maintenance and monitoring and evaluation to determine if the predicted benefits were realized. Submit recommendations to the Council for review and approval by June 1996. Implementation of resident fish mitigation and substitution measures is not to be delayed pending the development of the crediting methodology.

Council

- 10.1D.2 The Council will review the recommended crediting system in a public review process and adopt a system into the program.

10.1E Project Implementation and Selection

The Council expects that measures listed in the resident fish section of the program will be implemented and that these measures will increase resident fish populations. In this regard, the Council calls for the Annual Implementation Workplan to include a list of ranked resident fish projects demonstrating that the program is being implemented. Proposed actions that deviate from the program should be clearly marked and an explanation of the need for deviation provided. The Council will evaluate the proposed workplan and, if necessary, will consider amendments to this section to ensure that resident fish measures are implemented.

The Council recognizes that over time, the desirability of implementing certain projects may change. Likewise, desirable projects that are not currently foreseeable may become evident over time. Proposals for amendment of the program to address these situations can be submitted to the Council. Each proposed project should address and include:

- documented or agreed-upon resident fish losses attributable to the hydroelectric facility at issue;
- adaptive management principles that define anticipated results in terms of hypotheses to be tested (in quantitative terms if possible) and appropriate monitoring and evaluation to determine whether and why those results have been achieved;
- a description of the extent to which the project complements activities of fish and wildlife agencies and tribes;
- compliance with the policies set out in this program;
- likelihood of achieving significant biological results;
- an assessment of trade-offs with anadromous fish and wildlife activities;
- a management plan with sound biological objectives;
- consultation and coordination with interested parties
- estimated costs and a schedule for implementation and evaluation; and

- information on the extent to which it meets the standards of the Northwest Power Act.

Relevant Parties

- 10.1E.1 By 2006, implement resident fish projects currently identified in the program.

10.2 PRODUCTION AND WATERSHED PRINCIPLES

10.2A Natural and Artificial Propagation

Artificial propagation is one means of increasing or introducing fish populations. These activities must be pursued carefully, because artificial propagation can detrimentally affect the long-term sustainability of native and introduced species that exist in the area where stocking occurs. Concerns include competition, predation and interbreeding with existing resident and anadromous species, especially native and naturally produced species. A full discussion of these types of concerns occurs in Section 7.1. The Council believes that many of the actions called for in that section should also be applied to resident fish. These actions are outlined below.

The Council calls on all relevant parties to complete the following measures to address natural and artificial propagation for Columbia Basin resident fish species. Implementation will require a different scope of activities and level of effort depending on the type of propagation being employed. For example, a thorough and comprehensive approach to conserving genetic diversity is needed for native species. At the other end of the range, non-native species stocked for harvest without any expectation that they will reproduce naturally have minimal genetic diversity requirements. Within this range lie the genetic diversity needs of non-native populations introduced with the intent to encourage natural production. Considering the range addressed above, implement the following in a manner that avoids unnecessary delay and redundancy.

To expedite implementation, where the following are substantially addressed under the National Environmental Policy Act and/or relevant state environmental policy acts, consider that process to be in compliance with this section. In addition, completion dates identified for this

section are intended to discourage unnecessary procedural delays.

Relevant Parties

- 10.2A.1 Address resident fish as well as anadromous fish in developing a plan for conserving genetic diversity as called for in measure 7.1D.1. Complete plan addressing resident fish and submit to the Council by June 30, 1995.
- 10.2A.2 Address potential impacts on resident fish, where such impacts exist, in developing basinwide guidelines to minimize genetic and ecological impacts of hatchery fish on wild and naturally spawning species as called for in measure 7.2A.1. Complete guidelines and submit report to Council by December 31, 1994.
- 10.2A.3 The team of scientific experts that addresses hatchery impact assessment and basinwide hatchery operating guidelines called for in measure 7.2A.5 should address resident fish as well as anadromous fish.
- 10.2A.4 Regional Assessment of Supplementation Project activities called for in Section 7.3A.1, should address resident fish as well as anadromous fish.
- 10.2A.5 Measures addressing new program initiatives called for in Section 7.4A and measures 7.4A.1, 7.4B.1 and 7.4C.1, should apply to resident fish as well as anadromous fish.

10.2B Comprehensive Watershed Management

Good habitat is important for resident fish, just as it is for anadromous fish. The degraded condition of resident fish habitat in the Columbia River Basin often rivals that of anadromous fish.

For this reason, the program provisions noted in Section 7.7 (Cooperative Habitat Protection and Improvement with Private Landowners) should also apply to resident fish. The Council believes comprehensive, cooperative watershed management is essential to making good investments in protecting, mitigating and enhancing resident fish in the basin.

Relevant Parties

10.2B.1 Implement Section 7.7 of this program to also apply to resident fish, including the model watershed provisions, where applicable.

10.2C Diversion Screening and Passage

Bonneville, Bureau of Reclamation, U.S. Fish and Wildlife Service, States, Tribes and Irrigation Water Users

10.2C.1 Annually, in January, provide the Council with a prioritized list of tributary screening and passage facility improvements for stream diversions in the Columbia River Basin affecting resident fish. Improvements can include new facilities and the upgrading and maintenance of existing facilities. The list should include gravity and pump diversions. Priority initially should be given to naturally producing weak stocks. Additionally, provide the Council by November 1995 with a list of diversions where fish screening is a secondary problem compared to impaired instream flows. Identify resources that will be needed to accomplish screening and passage work, and prepare a general operation and maintenance budget, including a schedule, budget, proposed cost sharing incentive programs, and monitoring and evaluation plans. To accelerate this

effort, immediately identify and allocate a budget from all available sources for implementation of the plan.

Bonneville

10.2C.2 Based on the priorities indicated in Section 10.2C.1, provide funding for state and tribal fish screen programs to implement all priority screening projects. Innovative solutions that accomplish the same purpose as fish screening, i.e., conversion to electric pumping, conversions from surface to ground water, consolidations of diversions, etc., shall be encouraged. Funding shall be sufficient to:

- develop preliminary designs;
- see that necessary permit processes are carried out;
- make certain private landowner and public concerns are addressed;
- review detailed designs to ensure that biological and engineering criteria are met;
- monitor construction phases;
- establish written operating criteria;
- monitor operation and maintenance phases in compliance with criteria and recommend corrective actions if necessary; and
- conduct project evaluations.

Bureau of Land Management (Idaho and Oregon/Washington Offices), U.S. Forest Service (Regions 1, 4 and 6) and Bureau of Reclamation

10.2C.3 Require as a condition of both existing and new water use authorizations that diversion structures have functional fish screens and other passage facilities for man-made barriers to resident fish that meet the criteria developed by the Fish Screening

Oversight Committee (see Section 7.10). For existing authorizations, wherever practical, and especially on high-priority diversions, the three agencies should coordinate with the state fish screen programs and proceed to design and install screens that meet Oversight Committee criteria on a multiagency or shared-cost basis, with authorization renewals contingent on reimbursement to the agency or other arrangements satisfactory to the agency. By March 1 of each year, the three federal agencies should report on their progress, including the number of such permits, estimated screening costs, resources needed to implement and monitor the program, and a time frame for compliance.

Confederated Salish and Kootenai Tribes, Bonneville and Bureau of Indian Affairs

- 10.2C.4 The Confederated Salish and Kootenai Tribes shall provide a prioritized list of adult and juvenile fish passage needs and accomplishments on the Flathead Indian Reservation annually to the Bureau of Indian Affairs and the Council. Bonneville and the Bureau of Indian Affairs shall fund an accelerated program to accomplish screening and passage work.

Montana, Idaho, Oregon and Washington

- 10.2C.5 If needed, enact legislation and provide for enforcement of laws to require water users to install, operate and maintain fish screens on water diversions within resident fish waters of the Columbia River Basin. Report to the Council on this measure by June 30, 1995, and annually thereafter.

10.3 RESIDENT FISH MITIGATION MEASURES FOR SPECIFIC DAMS

Wherever in this section the Council has approved specific reservoir operating criteria, the Fish Passage Center and the Columbia Basin Fish and Wildlife Authority, in its supervision of the Fish Passage Center, should incorporate these criteria into their planning and system operational requests, as set forth in Measure 5.1B.1. Bonneville, the U.S. Bureau of Reclamation and the Corps of Engineers should include these operating guidelines in their Pacific Northwest Coordination Agreement data submittals, System Operation Review Environmental Impact Statement, and other pertinent long-term and annual planning and operation of the Columbia River Power System.

10.3A Hungry Horse Dam Resident Fish Mitigation

Bureau of Reclamation

- 10.3A.1 To aid reproduction of kokanee in the Flathead River and to aid rearing of other fish species and invertebrates, operate Hungry Horse Dam to provide the following instantaneous flows in the Flathead River at Columbia Falls.
- Flows not less than 3,500 cubic feet per second or more than 4,500 cubic feet per second from October 15 through December 15. The 4,500 cubic feet per second cap may be exceeded if kokanee are not present at the spawning sites. Coordinate with Montana Department of Fish, Wildlife and Parks and the Confederated Salish and Kootenai Tribes to determine when this restriction may be lifted.

- A minimum flow for incubation of at least 3,500 cubic feet per second provided 24 hours per day from December 15 through April 30.
- A minimum flow for emergence of 3,500 cubic feet per second provided 24 hours per day during the period from May 1 through June 30.
- A minimum flow of at least 3,500 cubic feet per second provided 24 hours per day from July 1 through October 15 for rearing of bull trout, cutthroat trout and mountain whitefish, and for aquatic invertebrate production.

- 10.3A.2 Report monthly to the Council the hourly average river flows. Include an estimate of the costs in megawatts and dollars to the hydropower system associated with meeting these flows. Modify the required flows when requested by the Montana Department of Fish, Wildlife and Parks and Confederated Salish and Kootenai Tribes for study purposes.
- 10.3A.3 Implement the integrated rule curves for Hungry Horse Reservoir submitted to the Council in July 1994 by the Confederated Salish and Kootenai Tribes and the Montana Department of Fish, Wildlife and Parks. Limits on drafting set in the curves should be met in all years. However, exceeding the limits for local flood control is allowed provided that the Council, the Confederated Salish and Kootenai Tribes and the state of Montana are notified prior to drafting, and the reservoirs are not incurring additional flood control responsibilities that have historically been provided by other projects. Exceeding the limits for power purposes is also allowed, but is contingent upon approval by the Council, the Confederated Salish and

Kootenai Tribes and the state of Montana. Deviations from the limits will require mitigation as prescribed by the tribes and states, approved by the Council and called for in Sections 10.3A.7 and 10.3A.8. Requests to exceed the limits should be submitted at least 60 days prior to drafting below the limits.

The intent of this measure is to improve historic dam operational practices to provide more favorable biological conditions for resident fish in the reservoir and affected river reaches and to help balance conditions for anadromous and resident fish so that the recovery of one is not pursued at the expense of the other.

Confederated Salish and Kootenai Tribes and Montana Department of Fish, Wildlife and Parks

- 10.3A.4 Continue to refine integrated rule curves to limit drawdown of Hungry Horse Reservoir to protect resident fish. Prepare a review of the biological effectiveness of integrated rule curves including recommendations for refinement or continuance of the rule curves. Submit to the Council by September of 2005.

Council

- 10.3A.5 Review state and tribal summary and recommendations on the biological effectiveness of and implementation costs associated with integrated rule curves. Based on that review, determine if integrated rule curves should be continued as implemented, refined, or terminated.

Bonneville

- 10.3A.6 Continue to fund studies to evaluate the effect of Hungry Horse Dam operating procedures on resident fish. Prepare a summary of the costs incurred and adjustments made by the power system as a result of implementation of integrated rule curves.
- 10.3A.7 In years when the integrated rule curves are exceeded for power purposes at Hungry Horse Dam, immediately fund the mitigation of fish losses to the extent those losses are caused by power operations.

Corps of Engineers

- 10.3A.8 In years when the integrated rule curves are exceeded for system flood control purposes at Hungry Horse Dam, immediately fund the mitigation of fish losses to the extent those losses are caused by system flood control operations.
- 10.3A.9 If a conflict occurs between maintaining the minimum flows required by Section 10.3A.1 and maintaining reservoir levels required by Section 10.3A.3, consult with the Confederated Salish and Kootenai Tribes and Montana Department of Fish, Wildlife and Parks to determine which requirements are preferred.

Relevant Parties

- 10.3A.10 Treat as elements of this program all resident fish loss estimates identified in the Fisheries Mitigation Plan For Losses Attributable to the Construction and Operation of Hungry Horse Dam prepared by Montana Department of Fish, Wildlife and Parks and the Confederated Salish and Kootenai Tribes.

Montana Department of Fish, Wildlife and Parks and the Confederated Salish and Kootenai Tribes

- 10.3A.11 Implement the mitigation measures in the long-term implementation plan as approved by the Council in March 1993 and in subsequent amendments.
- 10.3A.12 Initially, limit hatchery supplementation activities called for in the implementation plan to kokanee only. Limit facilities for production of kokanee to those that are temporary and low cost. Use facilities to test the feasibility of increasing kokanee populations in the Flathead Basin. If kokanee populations can meet the criteria for determining success of kokanee reintroduction, as stated in the Hungry Horse Dam Fisheries Mitigation implementation plan, make recommendations to the Council for construction of permanent production facilities, if warranted. Limit supplementation activities for other species to research aimed at development and refinement of supplementation techniques for westslope cutthroat trout and bull trout. Submit recommendations to the Council regarding supplementation of these species based on results of this research.
- 10.3A.13 Implement habitat improvement projects in the implementation plan to be consistent with maintenance of the genetic integrity of native fish and protection of species that are endangered, threatened, or of special concern that occur in the improved or newly accessible habitat. This concern is critical where passage over natural barriers is considered. In addition, implement fish health monitoring.

Bonneville

- 10.3A.14 Consult with the state of Montana and the Confederated Salish and Kootenai Tribes to explore alternative methods, including a trust agreement, for financing the long-term, non-operational mitigation features of the implementation plan. Explore cost shares to fund aspects of the implementation plan, especially for projects that mitigate the effects of non-hydropower caused problems (e.g., man-caused passage barriers in reservoir tributaries, fencing of overgrazed riparian areas and sediment control projects). If the parties listed above reach agreement on a suitable method for financing, submit recommendations to the Council for approval. Fund the agreement upon approval.

Council

- 10.3A.15 The determination of losses and appropriate measures contained in the Hungry Horse Dam mitigation plan assumes that the operation of Hungry Horse Dam will be conducted in accordance with practices current as of 1992. Under those practices: 1) reservoir drawdown for power purposes is limited by Section 10.3A.3 of this program; 2) reservoir drawdown for flood control is conducted in accordance with the assignment of project flood control responsibility in effect prior to the 1992 operating year; and 3) no drawdown of the reservoir, other than proportional drafting for the existing water budget, takes place for the purpose of increasing downstream flows to benefit salmon and steelhead. In the event that any significant changes to current practices are undertaken, reopen this determination

for the purpose of setting appropriate drawdown limitations to ensure that the mitigation measures contained in the plan remain adequate and effective.

Bonneville and Bureau of Reclamation

- 10.3A.16 Complete installation and operate a selective water withdrawal structure at Hungry Horse Dam to allow for temperature control to benefit resident fish.

Bureau of Reclamation, Confederated Salish and Kootenai Tribes, Montana Department of Fish, Wildlife and Parks, and Montana Power Company

- 10.3A.17 Continue coordinating the Kerr and Hungry Horse dams mitigation programs so that measures taken under those programs are complementary. The Council encourages representatives of Region 6 of the U.S. Fish and Wildlife Service to comment on mitigation and river management plans that affect fish and wildlife in Region 6.

Bonneville

- 10.3A.18 Fund an Instream Flow Incremental Methodology study of the mainstem Flathead River from the South Fork confluence downstream to the river inlet on Flathead Lake. Include recommendations for seasonal ramping rates and allowable flow fluctuations to benefit westslope cutthroat and bull trout spawners and juveniles, and insect production.

10.3B Libby Dam Resident Fish Mitigation

Corps of Engineers

- 10.3B.1 Develop operating procedures for Libby Dam to ensure that sufficient flows are provided to protect resident fish in the Kootenai River and Lake Koocanusa. Require a minimum flow of 4,000 cubic feet per second. In years of extremely low runoff, provide no less than 3,000 cubic feet per second. Based on the best available historical record, and in consultation with the Montana Department of Fish, Wildlife and Parks; Confederated Salish and Kootenai Tribes; Kootenai Tribe of Idaho; Idaho Department of Fish and Game; and the Council, include in the operating procedures a definition of “extremely low runoff” that will permit the 4,000 cubic feet per second requirement to be met to the fullest extent practicable. Until new procedures are adopted, operate Libby Dam under existing criteria.
- 10.3B.2 Implement the integrated rule curves for Libby Reservoir submitted to the Council in July 1994 by the Confederated Salish and Kootenai Tribes and the Montana Department of Fish, Wildlife and Parks. Limits on drafting set in the curves should be met in all years. However, exceeding the limits for local flood control is allowed provided that the Council, the Confederated Salish and Kootenai Tribes and the State of Montana are notified prior to drafting, and the reservoirs are not incurring additional flood control responsibilities that have historically been provided by other projects. Exceeding the limits for power purposes is also allowed, but is contingent upon approval by the Council, the Confederated Salish and Kootenai Tribes and the State of Montana. Deviations from the limits

will require mitigation as prescribed by the tribes and states, approved by the Council, and called for in measures 10.3B.5 and 10.3B.6. Requests to exceed the limits should be submitted at least 60 days prior to drafting below the limits.

The intent of this measure is to improve on historic dam operational practices to provide more favorable biological conditions for resident fish in the reservoirs and affected river reaches and to help balance conditions for anadromous and resident fish so that the recovery of one is not pursued at the expense of the other.

Confederated Salish and Kootenai Tribes; Montana Department of Fish, Wildlife and Parks; Kootenai Tribe of Idaho; and Idaho Department of Fish and Game

- 10.3B.3 Continue to refine integrated rule curves to limit drawdown of Libby Reservoir to protect resident fish. Prepare a review of the biological effectiveness of integrated rule curves including recommendations for refinement or continuance of the rule curves. Submit to the Council by September of 2005.
- 10.3B.4 Review state and tribal summary and recommendations on the biological effectiveness of and implementation costs associated with integrated rule curves. Based on that review, determine if integrated rule curves should be continued as implemented, refined, or terminated.
- Bonneville**
- 10.3B.5 Continue to fund studies to evaluate the effect of Libby Dam operating procedures on resident fish. Include a study of the effects of Libby Dam

operations on reproduction and rearing of white sturgeon in the Kootenai River assessing, among other things, when and where fish are present, food requirements and sources, effects of pollutants, population recovery and propagation methods. Coordinate this work with that in Section 10.4. Prepare a summary of the costs incurred and adjustments made by the power system as a result of implementation of integrated rule curves.

- 10.3B.6 In years when the integrated rule curves are exceeded for power purposes at Libby Dam, immediately fund the mitigation of fish losses to the extent those losses are caused by power operations.

Corps of Engineers

- 10.3B.7 In years when the integrated rule curves are exceeded for system flood control purposes at Libby Dam, immediately fund the mitigation of fish losses to the extent those losses are caused by system flood control operations.
- 10.3B.8 If a conflict occurs between maintaining the minimum flows required by measure 10.3B.1 and maintaining reservoir levels required by measure 10.3B.3, consult with Montana Department of Fish, Wildlife and Parks, Confederated Salish and Kootenai Tribes, Idaho Department of Fish and Game, and Kootenai Tribe of Idaho to determine which requirements are preferred.

Bonneville and Corps of Engineers

- 10.3B.9 In cooperation with the state of Montana, evaluate and, if beneficial to resident fish, feasible, cost-effective

under the Council's power plan, and in compliance with all applicable Montana and federal laws, fund adding three generators at Libby Dam. If feasible, during wet years, such additions may allow the reservoir to fill earlier than otherwise and thereby maintain a higher pool level, possibly benefiting fish in the reservoir. Also, project spill could be reduced, providing benefits for fish in the Kootenai River downstream from the project. Include in the evaluation the following:

- Review the adequacy of existing ramping rates. No more than five generators could be used under any circumstances for peaking or load following. This limit is a result of historic proceedings that addressed this issue at Kootenai Falls and Jennings Rapids.
- Assume that operation of all eight units simultaneously would be strictly prohibited except during declared flood emergencies or for demonstrated beneficial resident fish flow operations. At no time would the full capacity be available solely for power purposes.
- Operations are assumed to be an efficiency upgrade (i.e., existing non-power constraints would be met, volume releases would not be increased, and peaking and other operations would be constrained as needed to protect the resident fish resource and dependent ecosystems above and below the dam). The dam is assumed to remain a five-turbine project, albeit with operation of the newer turbines instead of the older units, and not an eight-unit project.
- The project, when modified with additional units, will be expected to comply with present and future non-power constraints. Any

additional generation produced by the project as a result of these changes would go to the federal Columbia River power system to be used to offset the investment in the project and other beneficial purposes as determined by the Bonneville administrator.

- Include analysis of costs, and impacts on fisheries, reservoir operations, water use and water quality.

Bonneville

10.3B.10 Fund the removal of materials that have accumulated in Kootenai River tributary deltas below Libby Dam as a result of the dam's construction and operation, because these materials interfere with the migration of spawning fish.

10.3B.11 In consultation with the Confederated Salish and Kootenai Tribes, the Montana Department of Fish, Wildlife and Parks, the Kootenai Tribe of Idaho and other appropriate entities, fund the design, construction, operation and maintenance of mitigation projects in the Kootenai River System and Lake Koocanusa to supplement natural propagation of fish. These projects are to counter the effects of habitat loss in the Kootenai River System caused by Libby Dam construction and by drawdown and discharges of water from Lake Koocanusa. In consultation with these entities, fund a study to determine levels of fish production necessary to mitigate the effects of the hydropower system. Submit results of the study to the Council by December 31, 1996. The Confederated Salish and Kootenai Tribes, the Montana Department of Fish, Wildlife and Parks, the Kootenai Tribe of Idaho and other appropriate entities are to make

recommendations for further action and necessary program amendments at that time.

10.3B.12 In consultation with Montana Department of Fish, Wildlife and Parks, the Kootenai Tribe of Idaho and British Columbia Environment Fisheries Branch, fund, consistent with Section 2.2G, a three-year investigation of transboundary populations of rainbow trout, kokanee, bull trout and westslope cutthroat trout in the British Columbia portion of Lake Koocanusa. This assessment will include mapping of critical spawning and rearing habitats, population estimates, stock identification, collection of biological information (age, growth, movement, etc.) and reservoir habitat preferences. Study results will correlate biological effects with impacts of different operating regimes of Libby Dam on the various species in the reservoir.

10.3C Dworshak Dam Resident Fish Mitigation

Idaho Department of Fish and Game and Nez Perce Tribe

10.3C.1 Analyze methods to avoid or minimize entrainment of kokanee at Dworshak Dam, including behavioral avoidance devices such as strobe lights, pneumatic hammers, bubble screens and sound generators, as part of development of integrated rule curves for Dworshak Reservoir.

10.3C.2 Implement annual mid-water trawling to further define the relationship between the fishery, kokanee densities and the water year, as part of development of integrated rule curves for Dworshak Reservoir.

- 10.3C.3 Implement annual kokanee spawner counts in appropriate creeks.
- 10.3C.4 Implement a genetic inventory in the North Fork Clearwater River drainage to determine the genetic status of the endemic westslope cutthroat trout population including genetic introgression of the westslope cutthroat trout population by introduced rainbow trout. Based on the study, make recommendations regarding further planting of rainbow trout in the North Fork drainage. Coordinate this measure with the Corps' resident fish mitigation program and review addressed in measure 10.3C.7.

Bonneville

- 10.3C.5 Fund Idaho Department of Fish and Game and the Nez Perce Tribe to implement the above measures. Work with the Corps and others to determine cost sharing opportunities on these measures.
- 10.3C.6 In consultation with the Nez Perce Tribe and appropriate state agencies, fund research, monitoring and evaluation activities to determine the potential impacts of multipurpose flow operations on resident fish in Dworshak Reservoir. This information will be used to develop analytical methods, such as biological and/or integrated rule curves for reservoir operations similar to those developed by the Montana Department of Fish, Wildlife and Parks for Hungry Horse and Libby reservoirs.

Corps of Engineers

- 10.3C.7 In coordination with appropriate fish and wildlife agencies and the Nez Perce Tribe, fund fish stocking activities in Dworshak Reservoir and in

the North Fork of the Clearwater River upstream from the reservoir, consistent with the Memorandum of Understanding between the U.S. Fish and Wildlife Service and the Corps. Fund monitoring to determine the effects of the resident fish mitigation program on endemic fish populations, particularly westslope cutthroat trout upstream from Dworshak Dam. Coordinate with Bonneville, Nez Perce Tribe, Idaho Department of Fish and Game, and U.S. Fish and Wildlife Service to develop and implement a review of this program to address native fish, watershed, and other concerns.

Corps of Engineers and Bonneville

- 10.3C.8 Fund investigation of the following items as part of development of integrated rule curves for Dworshak Reservoir: 1) the feasibility of avoiding downward fluctuations in Dworshak reservoir pool level from June 1 through August 31 to prevent dewatering smallmouth bass spawning nests; 2) the feasibility of achieving normal full pool during June, if flood runoff forecasting allows, to avoid rising pool levels and associated temperature depressions in near-shore areas when smallmouth bass are spawning; and 3) the feasibility of avoiding reservoir evacuation for winter flood control or hydropower prior to the September 1 date identified in the current flood control operating curve to promote terrestrial invertebrates deposition, which is an important food source for trout and smallmouth bass.

10.3D Big Fork Hydroelectric Project Resident Fish Mitigation

Pacific Power and Light Company

- 10.3D.1 Continue to operate the Big Fork Hydroelectric Project under provisions included in the project's Federal Energy Regulatory Commission license.

Montana Department of Fish, Wildlife and Parks; Confederated Salish and Kootenai Tribes; and Pacific Power and Light Company

- 10.3D.2 Examine mitigation alternatives to address losses of westslope cutthroat trout, rainbow trout, bull trout and kokanee in the Flathead River system caused by the Big Fork Hydroelectric Project.
- 10.3D.3 Continue to work together to ensure coordination of Big Fork Hydroelectric Project operations with Montana Department of Fish, Wildlife and Parks and the Confederated Salish and Kootenai Tribes' fish management objectives.

10.3E Other Projects**Bureau of Reclamation**

- 10.3E.1 Ensure that Anderson Ranch Dam is operated to maintain established minimum flow levels for the wintering and spawning of trout in the South Fork of the Boise River.
- 10.3E.2 Consult with the Oregon Department of Fish and Wildlife and affected irrigation districts to explore the potential for releasing surplus water when it is available from Owyhee, Warm Springs and Beulah reservoirs. Such releases would be made during the non-irrigation season to benefit downstream resident fish.

Bureau of Reclamation Corps of Engineers

- 10.3E.3 Operate Grand Coulee Dam and Lake Roosevelt to provide the maximum

water retention times possible, with a minimum of 40 days, from June 15 through the end of September. By mid-April, have the reservoir as low as it will be drawn down. For the period from April 1 to June 15, operate the lake for the maximum water retention times that have been historically achievable. Minimize reservoir fluctuations.

Meet the following end-of-month elevation targets while attempting to maintain the monthly mean water retention times as follows:

Period	Elevation (feet above sea level)	Retention
January	1,270	45 days
February	Operate reservoir to elevation 1,260	40 days
March-April 15	Operate reservoir no lower than 1,250 feet above mean sea level	30 days
April 16	1,255	30 days
May	1,265	35 days
June-December	Operate reservoir at 1,288 (2 feet below full pool)	40-60 days or maximum historically achievable for each month

Reduce the maximum water level from 1,288 feet above mean sea level to 1,283 feet above mean sea level every other year from June to August to re-establish terrestrial vegetation in littoral areas. Refill to elevation 1,288 feet above mean sea level by September 1. Refill in subsequent years to 1,288 feet above mean sea level.

Agreement data submittals, System Operation Review Environmental Impact Statement, and other pertinent long-term and annual planning and operation of the Columbia River Power System. The guidelines should be treated as a hard constraint. Bonneville, the Bureau of Reclamation and the Corps of Engineers are further directed to develop a biological rule curve, based on these guidelines, that will protect resident fish in Lake Roosevelt.

Include these operating guidelines in the Pacific Northwest Coordination **Fish Passage Center and Columbia Basin Fish and Wildlife Authority**

10.3E.4 Incorporate these operating guidelines for Grand Coulee into planning and system operational requests, as set forth in Section 5.1B.1.

10.3E.5 Develop additional scientific information on the benefits and need for a water retention time standard for Grand Coulee and submit to the Council as soon as possible. The Council will review and refine this measure based on anticipated submissions by the Columbia Basin Fish and Wildlife Authority in 1995.

Fish Managers and Council

Federal Energy Regulatory Commission

- 10.3E.6 To maintain habitat conditions suitable for the survival of resident fish in Georgetown Lake, do not permit alterations of future operations of the Flint Creek project from past practices without considering and incorporating the multiple uses of the project, including the needs of the fish.

Montana Power Company

- 10.3E.7 Continue funding an evaluation of the Milltown Dam proposed operating procedures to determine whether they will protect resident fish downstream from the project. Include an analysis of suspended sediments, associated heavy metals and organic pollutants, as well as an evaluation of the potential effect of these pollutants on resident fish. Propose mitigation alternatives to the Council if the investigations reveal that an adverse effect on the fish will result from the proposed operation.

Bureau of Reclamation, Corps of Engineers and Other Project Operators

- 10.3E.8 In consultation with the Council, tribes, and fish and wildlife agencies, use storage, where existing structures allow, to maintain water temperatures within the best ranges for fish habitat.

Shoshone-Bannock Tribes

- 10.3E.9 Acquire or construct a trout production facility and operate and maintain the facility for the production of native trout species for stocking on the Fort Hall Indian Reservation and elsewhere. Assess opportunities for joint

production strategies with the Shoshone-Paiute Tribes, including the training of tribal members in fish culture.

- 10.3E.10 Implement habitat restoration and enhancement activities in Spring Creek and Clear Creek along the Fort Hall Bottoms located on the Fort Hall Reservation.

Bonneville, Bureau of Reclamation and Other Relevant Entities

- 10.3E.11 Fund the Shoshone-Bannock Tribes projects listed above.

Washington Water Power Company

- 10.3E.12 Continue the existing operation of Post Falls Dam to minimize its impact on the fish and wildlife in Lake Coeur d'Alene and the Spokane River. Initiate consultation with the Coeur d'Alene Tribe to develop and conduct an evaluation(s) of the effects of current and projected hydropower operations at Post Falls Dam on fish in Lake Coeur d'Alene and the Spokane River by June 1996. In coordination with this consultation, continue to consult with the Idaho Department of Fish and Game and others. Proposals for further action may be made on the basis of the evaluation(s).

10.4 STURGEON MITIGATION

Sturgeon were once abundant in the Columbia River Basin. Population levels of sturgeon in some areas of the basin have declined, thereby raising concern about the long-term sustainability of the species. The Council believes that studies and evaluations should be

undertaken and completed quickly, and on-the-ground projects identified and implemented as soon as possible to address the needs of this species. In addition, these studies should be coordinated to avoid redundant work and to increase the potential for learning.

10.4A Study and Evaluate Sturgeon Populations

Bonneville

- 10.4A.1 In consultation with the appropriate tribes and state agencies, fund the implementation of the sturgeon measures listed below.
- 10.4A.2 In consultation with the appropriate state agencies and tribes, fund research to determine the impact of development and operation of the hydropower system on sturgeon in the Columbia River Basin. These studies may include: 1) habitat requirements, 2) maintenance of genetic integrity, 3) stock assessment, 4) potential for artificial propagation, and 5) migration potential. Specific recommendations for the protection, mitigation and enhancement of sturgeon may be submitted to the Council upon completion of these studies.
- 10.4A.3 In consultation with the Umatilla Tribes and other appropriate state agencies and tribes, fund an evaluation, including a biological risk assessment (see measure 7.3B.1), of potential means of rebuilding sturgeon populations between Bonneville Dam and the mouth of the Snake River.
- 10.4A.4 In consultation with the Nez Perce Tribe, Idaho Department of Fish and Game, Oregon Department of Fish and Wildlife and other appropriate state agencies and tribes, fund an evaluation, including a biological risk assessment (see Measure 7.3B.1), of potential means of rebuilding sturgeon populations in the Snake River between Lower Granite and Hells Canyon dams.
- 10.4A.5 In consultation with the Nez Perce Tribe, Idaho Department of Fish and Game, Oregon Department of Fish and Wildlife, and other appropriate state agencies and tribes, fund an evaluation of a put-and-take consumptive sturgeon fishery in Hells Canyon and Oxbow Reservoirs. The study may include the production of test fish at the existing Nez Perce Tribe sturgeon rearing facility. Submit for Council review and approval prior to implementation.
- 10.4A.6 In consultation with the Spokane Tribe, the Colville Tribes and other appropriate state agencies and tribes, fund a three-year base-line assessment of sturgeon in Lake Roosevelt from Grand Coulee Dam to the international border, including the Spokane River arm on the Spokane Indian Reservation. Include estimates of: current population size, abundance of each age class, age/length frequency, recruitment rate, natural and fishing mortalities, distribution and migration patterns, harvest, life history, habitat usage, environmental factors affecting abundance and an assessment of the potential for artificial propagation. Submit recommendations from these studies to the Council.
- 10.4A.7 In consultation with the appropriate tribes and state agencies, fund an evaluation of the development and maintenance of operations and facilities to enhance white sturgeon production by supplementation for depressed populations in the impounded portions of the Columbia and Snake rivers. Submit for Council review and approval prior to implementation.

- 10.4A.8 In consultation with the appropriate tribes and state agencies, fund an evaluation of the development and maintenance of an experimental white sturgeon research facility for research on contaminants, reproduction and genetics of white sturgeon. Submit for Council review and approval prior to implementation.
- 10.4A.9 In consultation with the appropriate tribes and state agencies, fund white sturgeon population research in Lake Roosevelt, mid-Columbia and lower Snake river reservoirs.

Corps of Engineers

- 10.4A.10 In consultation with the appropriate tribes and state agencies, fund research regarding feasibility of additional sturgeon passage opportunities at The Dalles Dam by restoring existing fish lock facilities.

10.4B Kootenai River White Sturgeon

The Council recognizes that white sturgeon in the Kootenai River are a species of special cultural significance to the Kootenai Tribe of Idaho. Further, the Council notes that since the construction of Libby Dam in 1972, recruitment has been nil and the population has been in steady decline. In the 76 kilometer section of the Kootenai River between Bonners Ferry, Idaho, downstream to the Canadian Border, the population was estimated at 1,148 individuals in 1982 and 880 individuals in 1990. Absence of smaller-sized sturgeon and an increase in the overall size distribution of the population to larger-sized, older fish between 1982 and 1990 points to an absence in recruitment. The Council has been presented with testimony from the fishery managers that this decline in all probability is caused by two factors, altered flow regimes and

load following, resulting from the operation of Libby Dam. The fishery managers believe that spring/summer flows in excess of 30,000 to 35,000 cubic feet per second at Bonners Ferry are needed to ensure adequate spawning and recruitment. Kootenai River white sturgeon were listed as an endangered species by the U.S. Fish and Wildlife Service in 1994. Degraded water quality, loss of sloughs and marshes (which may have formerly been potential fry habitat) due to diking, and reduced prey densities owing to Libby Dam trapping nutrients have also been suggested as contributing to the problem.

Since the Kootenai River white sturgeon population has had virtually no recruitment in the last 20 years, the Council has two recovery objectives. The first (short-term) is to act immediately to prevent further loss of genetic variability in the population. The second (long-term) is to restore natural reproduction and recruitment. These objectives will be accomplished in two ways. First, flow experiments will be conducted, in a manner consistent with the integrated rule curves for Libby Dam, in an attempt to identify the level of flows necessary for successful spawning and recruitment to occur. Second, to prevent additional losses of genetic variability to the population, owing to continued mortality with no replacement, genetically sound artificial propagation utilizing the Kootenai Tribal sturgeon culture station will be employed.

Until successful repeatable natural spawning of white sturgeon in the Kootenai River is shown to result in repeatable recruitment, recovery will include artificial production. Artificial production will follow guidelines set forth in the "Kootenai River White Sturgeon Recovery Strategy" developed by the Kootenai Tribe of Idaho Fisheries Program, in collaboration with the Upper Columbia United Tribes Fisheries Research Center. The guidelines incorporate a breeding plan developed by Dr. Harold Kincaid, a U.S. Fish and Wildlife Service geneticist in a report to Bonneville published in 1993. Kincaid's plan protects the genetic integrity (by maintaining genetic variability) of the wild Kootenai River white sturgeon stock, utilizing conservation aquaculture, while simultaneously restoring the

natural age structure to the population. The Council, by this action, approves both the Kootenai Tribe of Idaho/Upper Columbia United Tribes recovery plan and Kincaid breeding plan and incorporates them as part of this program. When the U.S. Fish and Wildlife Service develops a recovery plan for the Kootenai River white sturgeon, the Council will consult with the Kootenai Tribe and the Fish and Wildlife Service and other interested entities to determine if the recovery plan is consistent with the recovery strategy adopted here, and if not, to determine whether and how this recovery strategy should be revised.

The captive breeding program will use three to six females and an equal or greater number of males captured from the Kootenai River each spring. Fish will be spawned in pairs or in diallel mating designs to produce a minimum of five to six individual families that will be reared separately to maintain family identify. After hatching, approximately half the offspring shall be transferred to either Sandpoint or Cabinet Gorge hatchery in case catastrophic losses were to occur at one facility. Fish will be marked to identify family and year class before return to the river. Fish should be returned to the river as fall fingerlings to minimize potential adaptation to the hatchery environment. Initially, while tagging methods are tested to ensure positive identification after return to the river, it may be necessary to plant fish as spring yearlings. Total number of fish planted will be 5,000 to 7,000 if fall fingerlings or 1,000 to 1,200 if spring yearlings, with the number planted from each family equalized. Assuming annual survival rates of 20 percent during the first winter for fall fingerling plants and 50 percent for years one to three, and 85 percent for years four to 20 of all fish planted, the target numbers would yield 7.9 progeny per family or about four breeding pairs at age 20. Natural survival in the river environment during the 19+ years from planting to maturity would result in variability in genetic contribution of families to the next broodstock generation. Fish planted per family would be adjusted in future years when actual survival rate information is known. Broodfish will be tagged

when captured to minimize multiple spawning of the same fish.

The annual number of progeny produced per family is determined by the number of successfully spawned females in a given year. If six distinct white sturgeon families are produced, the annual production goal of 1,200 age 1 fish will be met with 200 individuals per family. If 12 distinct families are produced, the annual production goal of 1,200 age 1 fish will be met with 100 fish per family. Producing an intermediate number of families (>6, <12) will meet the 1,200 fish target by adjustment of numbers of fish per family at age 1.

The following mating options are designed to preserve the population's remaining genetic variability, maximize the effective population number and begin rebuilding a natural age class structure.

<u># Females</u>	<u># Males</u>
2	8
3	9
4	4
5	5
6	6

After a fish, male or female, has produced one progeny family, it shall not be spawned again for a minimum of five years. After five years, a fish could be used to produce a second family only if no other unused fish are available for spawning. No fish will be used more than twice.

Biological objectives for endangered Kootenai River white sturgeon:

- Preserve existing gene pool and re-establish natural age structure of the population. To accomplish this goal, it will be necessary to have a minimum "successful recruitment" by 100 families, with a family unit defined as one female crossed with one male, during the next 20 years (by 2015). "Successful recruitment" is defined as enough

fish to produce 4 to 10 sexually mature adults/family unit (average 7.9 adults/family unit) at 20 years of age. To reproduce natural age structure this will require that an average of five family units per year be spawned successfully, with approximately 200 age 1 individuals from each family recruited into the population each year for the next 20 years. This will result in a population of approximately 640 age 20 or older adults by 2035, which, when added to the number of individuals surviving from the wild population (223 estimated in 2035 based upon a current estimated 3.3 percent annual mortality) would stabilize the population at approximately the current population of 880 individuals older than age 20. Assuming that between 2015 and 2035, five families reproduce annually at the same rate, an additional 3,200 fish younger than age 20 would also be present. Of equal importance, the age structure of the population would be restored, thus allowing additional time to recover this stock. In essence, this objective boils down to producing 1,000 to 1,200 age 1 fish composed of five to six families of 20 fish each annually.

- Restore recruitment produced by naturally spawning adult sturgeon in the Kootenai River.
- At present, given the length of time anticipated for recovery to take place, no harvest or escapement targets have been established. However, it is a long range management objective of the Kootenai Tribe of Idaho to eventually restore this stock of sturgeon to a sufficient abundance and age distribution to allow for

ceremonial, subsistence and recreational harvest by tribal members and recreational harvest by sport anglers.

Strategies to achieve biological objectives for Kootenai River white sturgeon:

- The Council's measures to restore endangered Kootenai River white sturgeon will undertake concurrent thrusts: 1) obtain higher water flows in the river to re-establish natural spawning, and 2) initiate a captive culture program to preserve existing genetic variation until natural spawning is restored.
- Utilize the Kootenai Tribal sturgeon culture station to augment recruitment until evidence is available to show that natural reproduction is yielding adequate recruits to sustain the genetic variability. Additionally, the captive culture program will utilize "preservation stocking" techniques to minimize inbreeding, genetic bottlenecks and other detrimental effects that conventional supplementation programs have on wild fish populations. A parent stock of wild fish collected from the Kootenai River with an effective population size of 200 individuals (100 females and 100 males) or 100 families will be used to ensure genetic integrity. A constraint will be placed on the captive culture program to ensure that at least 70 percent of mature females in any given year are retained in the river and allowed to spawn naturally if river conditions permit. Available scientific evidence indicates that 22 to 42

females become mature each year, so using the more conservative lower value, up to six females could be captured annually and spawned to produce fish for the culture program. At a current 3.26 percent annual mortality rate, calculated from the difference between two population estimates made in 1982 (1,148 individuals) and 1990 (880 individuals), the number of females that could be used in future years would decline to five in five years, four in 10 years, and three in 15 years. The recruitment goal for each family in this program is enough fish to produce 4 to 10 adults at 20 years of age. This would require stocking approximately 5,000 to 7,000 total age 0 fish or 1,000 to 1,200 total age 1 fish with equal numbers stocked from each family.

- The captive breeding program will use three to six females and an equal or greater number of males captured from the Kootenai River each spring. Fish will be spawned in pairs or in diallel mating designs to produce individual families that will be reared separately to maintain family identity. Fish will be marked to identify family and year class before return to the river. Fish should be returned to the river as fall fingerlings to minimize potential adaptation to the hatchery environment. Initially, while tagging methods are tested to ensure positive identification after return to the river, it may be necessary to plant fish as spring yearlings. Total number of fish planted will be 5,000 to 7,000 if fall fingerlings or 1,000 to 1,200 if spring yearlings, with equal numbers planted from each family. Assuming annual survival rates of 20 percent during the first winter

for fall fingerling plants and 50 percent for years one to three, and 85 percent for years four-20 of all fish planted, the target numbers would yield 7.9 progeny per family or about four breeding pairs at age 20. Natural survival in the river environment during the 19+ years from planting to maturity would result in variability in genetic contribution of families to the next broodstock generation. Broodfish will be tagged after spawning to minimize multiple spawnings of the same fish.

- Operate Libby reservoir according to the Integrated Rule Curve guidelines in an attempt to provide for natural spawning and recruitment within the Kootenai River. Implementation and duration of discharge will be consistent with Section 10.3B.1 and 10.3B.2.

Measures to achieve biological objectives for Kootenai River white sturgeon:

Kootenai Tribe of Idaho

- 10.4B.1 Operate and maintain a low-capital sturgeon hatchery on the Kootenai Indian Reservation. With Bonneville, explore alternative ways to make effective use of the hatchery facility year-round.
- 10.4B.2 Survey the Kootenai River downstream from Bonners Ferry, Idaho, to the Canadian border to: 1) evaluate the effectiveness of the hatchery, and 2) assess the impact of water-level fluctuations caused by Libby Dam on hatchery operations for outplanting of sturgeon in the Idaho portion of the Kootenai River.

Bonneville and Corps of Engineers

10.4B.3 Release water from Libby Dam to augment river discharge during the historic white sturgeon spawning period (May-July) to accomplish flow experiments and attempt to encourage natural spawning and recruitment. The purpose of these experiments shall be to identify the minimum flows required to achieve natural spawning and recruitment of year classes. Implementation and duration of discharge will be consistent with Section 10.3B.1 and 10.3B.2.

10.4B.4 Follow the accompanying operating guidelines at Libby Dam when augmenting discharges:

- Variation in discharge (“load factoring” or “load following”) should be eliminated or minimized during wettest 66 percent of water years. Load factoring is permissible during the driest 33 percent of water years, but efforts to minimize load factoring every year are strongly encouraged.
- A minimum stream flow of 12,000 cubic feet per second should be maintained from May 1 through August 25 at Bonners Ferry during the 66 percent wettest years to eliminate stranding of larvae and juvenile fishes, and to reduce the chances of the river reaching lethally high temperatures during the white sturgeon egg incubation and larval development periods.
- Augmented discharge in the 66 percent wettest years should occur in such a way as to maintain 8° to 14° centigrade water temperature at Bonners Ferry from the first to the 45th day of augmented discharge.

- Ramping up and down to and from augmented discharge levels should occur over at least a 96-hour period.
- During the 66 percent wettest years, water temperature should be 18° centigrade between the 45th day of augmented discharge and August 25 (during the 12,000 cubic feet per second minimum discharge period) to maximize survival of white sturgeon eggs and larvae.
- Experimental discharges should be provided during average water years (33-66 percent wettest years) to test how incremental discharge increases affect natural spawning and recruitment of white sturgeon in the Kootenai River. The emphasis during such years should be on providing different discharge regimes to determine if natural reproduction and recruitment can be achieved with moderate discharge.
- Natural spawning experiments will also be conducted to determine if moderate discharge regimes, shaped differently than current discharge patterns, can satisfy the recovery objective of reestablishing natural spawning and recruitment of white sturgeon in the Kootenai River. In addition to shaping augmented discharge, effects of increased discharge duration will be evaluated. The aim of these natural spawning experiments is to use adaptive river management to test hypotheses concerning natural spawning requirements of white sturgeon in the Kootenai River.
- Augmented discharge will not occur during below average water (<33 percent wettest years) to better allow reservoir refill, thereby enabling greater water availability

for natural spawning tests in subsequent years. Not releasing water through Libby Dam during below average water years will also reduce negative effects on resident fisheries and recreation in Lake Kootcanusa currently caused by low reservoir surface elevations.

- Discharge augmentation in above average water years will be automatically implemented once the predetermined adequate amount of water is available. The Corps of Engineers should provide reports including runoff forecast and water availability data to all involved management agencies (Kootenai Tribe of Idaho, Idaho Department of Fish and Game, Montana Department of Fish, Wildlife and Parks, U.S. Fish and Wildlife Service, Bonneville, Pacific Northwest Utilities Conference Committee). Annual implementation of augmented discharge will be based on run-off forecasts and water availability data provided by these reports made available and updated from January to March of every year.
- By March 15, the Corps of Engineers shall provide an annual report of runoff and water availability, which will determine the targeted Kootenai River Water Budget for white sturgeon, to the Council and to appropriate fisheries management agencies (Kootenai Tribe of Idaho, Idaho Department of Fish and Game, Montana Department of Fish, Wildlife and Parks, U.S. Fish and Wildlife Service). These four agencies (water budget team) will consult with Bonneville and the Corps of Engineers to develop an annual implementation plan that

shapes the flows for conducting adaptive management experiments. The report will be submitted to the Council by the water budget team annually by April 1. This report will describe the dates and times, ramping rates, shapes of flows and temperature guidelines for the sturgeon spawning experiment to be conducted that year.

- The range of augmented discharge during average water years (15,000-25,000 cubic feet per second) is designed to investigate white sturgeon spawning over a wide range of discharge regimes.
- The furthest downriver suspected spawning habitat for white sturgeon exists near Shorty's Island, located downstream from Bonners Ferry. Due to braided channel morphology in this area of the river, an increase of discharges from 22,000 to 23,000 cubic feet per second provides a nearly five-fold increase in predicted spawning habitat. Therefore, during average water years, effort should be made when possible to provide discharge between 23,000 and 25,000 cubic feet per second at Bonners Ferry. However, effects of discharge on spawning should also be evaluated at discharges ranging from 15,000 to 22,000 cubic feet per second at Bonners Ferry in average water years.

Kootenai Tribe of Idaho, Idaho Department of Fish and Game, and Montana Department of Fish, Wildlife and Parks

- 10.4B.5 As part of the Kootenai sturgeon recovery strategy (see measure 10.4B.4 above):

- The Kootenai Tribe of Idaho is to operate the Kootenai Tribal sturgeon hatchery and develop propagation methods that ensure healthy sturgeon are outplanted into the Kootenai River commencing in 1995. Also, mark all hatchery-released fish to distinguish from naturally produced fish. The Idaho Department of Fish and Game is to rear white sturgeon at Sandpoint or Cabinet Gorge hatcheries commencing in 1995.
- The Kootenai Tribe of Idaho, Idaho Department of Fish and Game and Montana Department of Fish, Wildlife and Parks will participate on the water budget team, commencing in 1996.
- The Kootenai Tribe of Idaho, Idaho Department of Fish and Game and Montana Department of Fish, Wildlife and Parks are to conduct monitoring and evaluation to assess the effectiveness of these measures, and investigate critical uncertainties about other factors that may contribute to reduced sturgeon recruitment, commencing in 1995. The monitoring and evaluation program shall include: 1) an assessment of spawning success and natural recruitment to the juvenile population under high discharge in high runoff years, experimental discharges in moderate runoff years and no flow augmentation in below average runoff years; 2) an assessment of hatchery releases; 3) an assessment of exactly how and why low Kootenai River discharges affect sturgeon recruitment; and 4) an assessment of factors other than discharge that may be contributing to the lack of Kootenai River white sturgeon spawning success and recruitment.

Such factors potentially include pollutants, limited food resources (at various life history stages), predation, combination of altered thermal regimes and limited food availability that could cause poor winter survival of young-of-the-year sturgeon, and lack of habitat for fry, juvenile or subadult life history stages. In particular, data shall be collected to develop bioenergetics models that assess the impact of predatory fish consumption of sturgeon eggs and larvae to recruitment of sturgeon year classes. As part of this study, the impact of low versus high discharges on the intensity and rates of predation on sturgeon eggs and larvae shall be investigated. The project will determine the feasibility of utilizing predator management as a tool to improve sturgeon recruitment. This investigation shall also focus on assessing larval and overwinter survival of age 0 sturgeon as it relates to the current levels of primary and secondary production in the river and Kootenay Lake.

10.5 BULL TROUT AND OTHER NATIVE SALMONID MITIGATION

10.5A Study and Evaluate Bull Trout Populations

Bull trout were once abundant in the Columbia River Basin. Population levels have declined in some areas, thereby raising concerns about the long-term sustainability of the species. The measures below call for studies and evaluations. The Council believes these studies and evaluations should be undertaken and completed quickly, and on-the-ground projects identified and implemented as soon as possible to

address the needs of this species. In addition, these studies should be coordinated to avoid redundant work and to increase the potential for learning.

Bonneville, Other Federal Agencies, States, Hydroelectric Project Owners and Other Entities as Appropriate

- 10.5A.1 Fund bull trout population and habitat surveys in the Middle Fork Willamette and McKenzie River systems and habitat improvements identified in the surveys to benefit bull trout.
- 10.5A.2 Fund a study of the status, life history, habitat needs and limiting factors for bull trout populations in the Deschutes, Grande Ronde, Hood, John Day and Umatilla subbasins.
- 10.5A.3 Fund the Confederated Salish and Kootenai Tribes and Montana Department of Fish, Wildlife and Parks to initiate a comprehensive genetic sampling program for bull trout in the Flathead River Basin.

Confederated Salish and Kootenai Tribes and Montana Department of Fish, Wildlife and Parks

- 10.5A.4 Initiate a comprehensive genetic sampling program for bull trout in the Flathead River Basin to provide basic genetic information needed for rebuilding bull trout populations, including the use of supplementation for rebuilding purposes, as well as to identify non-lethal genetic sampling techniques.

Bonneville

- 10.5A.5 In consultation with the Idaho Department of Fish and Game and appropriate tribes, fund an investigation of the life history, habitat needs and threats to persistence of bull trout and a genetic sampling program for bull trout in the Lake Pend Oreille system.

- 10.5A.6 In consultation with the Washington Department of Fish and Wildlife and the Yakama Indian Nation, fund a study of the life histories and limiting factors for bull trout populations residing in the following Bonneville Reservoir tributaries: Wind, Little White Salmon, White Salmon and Klickitat rivers. The purposes of the study include:

- determine presence and abundance of juvenile and adult bull trout;
- compare the genetic make up of stocks found with each other and stocks outside the study area;
- determine the amount of suitable bull trout habitat available in the tributaries;
- determine limiting factors for bull trout production; and
- develop a management plan for bull trout on tributaries to the Bonneville Reservoir.

10.5B Study and Evaluate Native Salmonid Populations Above Hells Canyon Dam

Bonneville, Other Federal Agencies, States, Hydroelectric Project Owners and Other Entities as Appropriate

- 10.5B.1 In consultation with the Idaho Department of Fish and Game, Oregon Department of Fish and Wildlife, Shoshone-Bannock Tribes, Shoshone-Paiute Tribes and Burns Paiute Tribe, fund an investigation of the life history, habitat needs and threats to persistence of native salmonids upstream of Hells Canyon Dam in the Snake River and its tributaries.

10.5B.2 In consultation with the Idaho Department of Fish and Game, Oregon Department of Fish and Wildlife, Shoshone-Bannock Tribes, Shoshone-Paiute Tribes and Burns Paiute Tribe, fund the initiation of a comprehensive genetic sampling program for native salmonids upstream of Hells Canyon Dam in the Snake River and its tributaries.

10.6 OTHER RESIDENT FISH POPULATIONS

10.6A Rainbow Trout in the Clearwater River

Idaho Department of Fish and Game

10.6A.1 Provide information to the Council on whether habitat in the Clearwater River below its North Fork is suitable for rainbow trout. If the habitat is suitable and production of rainbow trout will not conflict with production of chinook salmon, provide a plan to stock the river with rainbow trout. Coordinate development of this plan with the Nez Perce Tribe and the National Marine Fisheries Service.

Bonneville

10.6A.2 Upon completion of the actions specified in Section 10.6A.1, and upon Council review and approval, fund the program for stocking rainbow trout in the Clearwater River.

10.6B Salmonids and Spiny-Rayed Fish in Pend Oreille River

Corps of Engineers

10.6B.1 Fund a study to evaluate the existing and potential salmonid and spiny-rayed fish and their habitat in the Pend Oreille River from Lake Pend Oreille downstream to Albeni Falls Dam. Coordinate this study with the Idaho Department of Fish and Game, Washington Department of Fish and Wildlife and Kalispel Tribe of Indians. Submit recommendations based on results of these studies. Upon approval by the Council, fund recommendations.

10.6C Sturgeon and Burbot in Kootenai River

Bonneville

10.6C.1 Fund efforts to restore sturgeon and burbot populations in the Kootenai River. These populations are dependent on the productivity of fish habitats in the entire Kootenai River system including the Kootenay River and Kootenay Lake in British Columbia. Coordinate and share the cost of this measure with Canadian fishery managers.

10.6D Kokanee in Banks Lake

Bureau of Reclamation or Appropriate Irrigation Districts

10.6D.1 Fund maintenance of the barrier net system at the outlet from Banks Lake into the main irrigation canal to conserve the spawning population of kokanee in the lake.

10.6E Kokanee in Lake Pend Oreille

The Council endorses adaptive management techniques and targeted research to improve environmental conditions and provide data

concerning critical uncertainties. The same approach should be applied to uncertainties regarding Lake Pend Oreille.

The decline in kokanee populations from the 1960s to the mid 1990s has been debated in terms of magnitude of decline and factors causing the decline. Shoreline spawning counts have declined from 39,400 in 1953 to 1,900 in 1992. The Idaho Department of Fish and Game believes that there would be an increase in spawning habitat if lake levels were held up. Other factors such as predation, mysis shrimp introduction and other food web changes have also been suggested as possible causes of decline and limits on population size.

An experimental regime in which winter water levels are maintained above 2,051 feet would test whether spawning habitat limits kokanee populations, and whether recruitment would be significantly enhanced by higher water levels. Managing winter water levels to 2,054 feet in 1995-96, 2,055 feet in 1996-97 and 2,056 feet in 1997-98 would provide sufficient new spawning habitat to permit such a test.

Because the kokanee population is low and variable, and weak year classes are forecast, there is an urgent need to understand the causes of decline. Research should provide data to address uncertainties regarding: movements of shoreline gravel; any impacts or benefits to Box Canyon Reservoir; a lake energy budget including zooplankton; predation levels and predator abundance; mysis shrimp and kokanee; changes in the abundance of warmwater fish species; concerns about Eurasian water milfoil; and effects on wildlife and waterfowl. Many elements of this research are needed prior to making long-term decisions regarding lake level management.

Therefore, the Council calls for maintaining Lake Pend Oreille levels at an elevation of 2,054 feet in 1995-96, 2,055 feet in 1996-97 and 2,056 feet in 1997-98 from early November until April for three winters.

Idaho Department of Fish and Game and Appropriate Tribes and State Agencies

- 10.6E.1 Prepare a study plan for Council review by September 1995 to investigate the effect of changing water level management of Lake Pend Oreille starting in the fall of 1995. Address as a part of the study: the effect of lake level changes on kokanee production; possible movements of shoreline gravel and sediment; any impacts or benefits to Box Canyon Reservoir; a lake energy budget, including zooplankton; predation levels and predator abundance; mysis shrimp and food availability for larval and adult kokanee; changes in the abundance of warm water fish species; concerns about Eurasian water milfoil; and effects on wildlife and waterfowl. During the term of the study implement hatchery improvements identified in previous studies on Cabinet Gorge Hatchery, maintain current levels of kokanee production and maintain current levels of harvest.

Independent Scientific Group

- 10.6E.2 Review the study design and implementation, including appropriate lake levels, at the earliest opportunity and submit a review to the Council by September 1, 1996. The Council will then confirm or modify the final study design.

Bonneville

- 10.6E.3 Fund the Lake Pend Oreille kokanee study as approved by the Council.

Corps of Engineers

10.6E.4 Change lake level minimums to 2,054 feet, 2,055 feet and 2,056 feet during the next three winters. These lake levels should be implemented only if monitoring and evaluation measures (spawning related studies) are in place. Drafts below these levels are permissible in case of power emergencies to protect system reliability (see Section 1.8 on system reliability and emergencies). Any replacement energy for these operations must not come from Columbia River Basin storage projects. Funding for research associated with these operations is subject to the ongoing process for project ranking and prioritization.

10.7 PROVIDE AND EVALUATE USE OF SHORELINE VEGETATION

10.7A Vegetation Plantings

Bonneville, Other Federal Agencies, States, Hydroelectric Project Owners and Other Entities as Appropriate

10.7A.1 Fund test vegetation plantings at appropriate reservoirs and evaluate results. Appropriate reservoirs might include Hills Creek, Dworshak, Libby, Hungry Horse, Lake Roosevelt and others. Incorporate the results of shoreline vegetation studies at Revelstoke and other reservoirs into this test. Based on the results of the test plantings, fund a feasibility study to identify which hydroelectric projects in the basin would benefit from revegetation improvements.

Bonneville

10.7A.2 Combine the information developed from test plantings in all reservoirs in the basin with a site-specific examination of the effect of operation levels on plant species and survival, the identification of areas likely to produce the most beneficial impacts on targeted fisheries, as well as an assessment of cost/benefit, permitting, environmental impact and overall feasibility. The results and recommendations of this study are to be submitted to the Council by December 31, 1998. Upon Council approval, fund implementation of recommendations.

10.8 RESIDENT FISH SUBSTITUTIONS

Salmon and steelhead probably never will be able to return to some areas of the basin because of blockages by dams. These include the areas above Chief Joseph and Grand Coulee dams and the Hells Canyon Complex, as well as other smaller blocked areas. In its analysis of the contribution of the hydropower system to salmon and steelhead losses (see Council documents 87-15, 87-15A and 87-15B), the Council has addressed the extent to which resident fish substitutions should be used to mitigate losses of salmon and steelhead production in these areas.

The Council has concluded that: 1) mitigation in blocked areas is appropriate where salmon and steelhead were affected by the development and operation of the hydroelectric projects; 2) to treat the Columbia River and its tributaries as a system, resident fish substitutions are reasonable for lost salmon and steelhead in areas where in-kind mitigation cannot occur; and 3) flexibility in approach is needed to develop a program that complements the activities of the fish and wildlife agencies and tribes and is based on the best available scientific knowledge. For substitution purposes, resident fish may include landlocked anadromous fish (e.g., white sturgeon, kokanee and coho), as well as traditionally defined resident fish species.

10.8A Resident Fish Substitutions Policy

The substitution of resident fish to make up for losses of anadromous fish in areas now permanently blocked to salmon and steelhead reflects the Council's resolve to address complex, long-term problems. Historical records show that the Columbia River Basin Indian tribes relied extensively on salmon and steelhead, and the permanent loss of these resources has had incalculable impacts on tribal economies, cultures and religions.

Historically, the Council approved projects in the areas above Chief Joseph/Grand Coulee, and in the blocked areas above Hell's Canyon Dam. Examples of substitution activities are at Lake Roosevelt, tributaries and reservoirs of Box Canyon Reach of the Pend Oreille River, tributaries of the Coeur d'Alene Indian Reservation, Kootenai River, lakes and streams of the Colville Indian Reservation, as well as above Hell's Canyon Dam on the Duck Valley Reservation, C.J. Strike Reservoir, the Fort Hall Reservation, and Cascade Reservoir. In the Council's 1993 resident fish and wildlife amendment process, the Council expanded its historic substitution areas to include projects outside of the historical blocks, above the blocked areas at Dworshak and Pelton dams.

Substitution activities are one of the two highest priorities in the resident fish program, as provided in Section 10.1B.

The Council has determined that until on-the-ground measures are achieved and the level of rebuilding is known, this priority is the best biological approach.

The resident fish substitution policy is guided by and encompasses Sections 10.1, 10.1A, 10.1B and 10.2 of this program.

10.8B Resident Fish Substitution Biological Objectives and Measures Above Chief Joseph/Grand Coulee Dams

The fishery managers, including the Colville Confederated Tribes, Coeur d'Alene Tribe, Kalispel Tribe, Kootenai Tribe of Idaho, Spokane Tribe and Washington Department of Fish and Wildlife collectively identified the following biological objectives as partial mitigation for the loss of anadromous salmon and steelhead blocked by Chief Joseph and Grand Coulee Dams. The Council approves these biological objectives and seeks implementation of the associated strategies and measures to achieve them, as a reasonable interim goal whose completion will partially offset the historic and contemporary losses incurred.

The best available scientific information presented to the Council indicates that the full, complete and sustained achievement of the following biological objectives will redress approximately 10 percent to 13 percent of the total losses of anadromous fish previously harvested by the tribes above the block at Chief Joseph and Grand Coulee dams. Monitoring and evaluation of the performance of the strategies designed to achieve the stated biological objectives will determine the actual amount of credit to be applied to the underlying losses. The methodology for calculating the credit to be applied against the obligation of the hydrosystem will be developed as described in Measure 10.1D.1.

Lake Roosevelt biological objectives:

Biological objectives at Lake Roosevelt include the following annual targets of harvestable sized adult fish:

Species	Stock	Harvest goal (#)	Escapement goal (#)	Total adult fish #	lbs.	Year
kokanee	hatchery	290,000	10,000	300,000	2.0	2000
kokanee (adfluvial)	wild	120,000	60,000	180,000	2.0	*
rainbow trout	net pen	190,000	NA	190,000	1.5	1997
rainbow trout (interim) (adfluvial)	wild	12,000	6,000	18,000	2.0	2000
rainbow trout (adfluvial)	wild	150,000	74,000	224,000	2.0	final
walleye	wild	131,000	U	131,000	1.5	1996

NA = not applicable, U = unknown at the present time, * target date will be determined upon completion of baseline investigations, t = target date will be determined after interim goal is achieved.

Additionally, operate Grand Coulee Reservoir to produce successful year classes of yellow perch as forage for walleye.

To help reduce entrainment and ensure adequate food supplies for resident fish in Lake Roosevelt, operate Grand Coulee Dam to meet the following minimum monthly elevation targets while attempting to maintain the minimum monthly mean retention times as follows:

Period	Elevation (feet above sea level)	Retention
January	1,270	45 days
February	Operate reservoir to elevation 1,260	40 days
March-April 15	Operate reservoir no lower than 1,250 feet above mean sea level	30 days
April 16	1,255	30 days
May	1,265	35 days
June-December	Operate reservoir at 1,288	40-60 days or maximum

(2 feet below full pool)

Reduce maximum water level from 1,288 feet above mean sea level to 1,283 feet above mean sea level every other year to re-establish terrestrial vegetation in littoral areas. By September in those years be at 1,288 feet above mean sea level. Reflood in subsequent years to 1,288 feet above mean sea level. These operating guidelines are to remain in effect until biological and integrated rule curves for Lake Roosevelt have been approved by the Council.

Timelines to achieve targets for individual species are:

- Hatchery kokanee: three years after 1 million age 1+ residualized smolts are released into the reservoir. It is expected that Bonneville will provide funding to increase the water supply to the Spokane Tribal Hatchery and develop kokanee net pens by 1996, to allow the release of 1 million 1+ residualized kokanee smolts by 1997, resulting in a target date of the year 2000.
- Wild kokanee: not specified until current stock status is determined in measure 10.8B.7.
- Net pen rainbow: the year in which net pen expansion allows for holding and release of 500,000 rainbow trout. At the present time, approximately 140,000 rainbow are harvested per year based upon the release of 350,000 net pen fish. The Council expects Bonneville to complete expansion of the rainbow net pens, sufficient to rear 500,000 rainbow trout by 1997.
- Wild rainbow: adaptive management experiments are currently under way, employing

historically achievable for each month pilot projects in selected tributaries. Interim targets totaling 18,000 wild adult rainbow, including 6,000 escapement and 12,000 harvestable surplus for five selected tributaries were established. These targets compared to pre-habitat improvement estimates of 1,089 total wild rainbow, including 363 escapement and 726 harvested, in the five tributaries. Habitat enhancement commenced in 1992 and will be completed by 1995 under measure 10.8B.9. Interim targets are expected to be fully achieved after one complete four-year life cycle (by the year 2000). If interim targets are met by that date, the Council will expect to receive a recommendation to complete habitat restoration for wild rainbow trout in other tributaries. If interim targets are not met by that date, the Council expects continued monitoring through 2004 (four complete life cycles) to develop information about long-term success or failure of the pilot projects.

- Walleye: 1996
- Yellow perch: 1996
- Lake Roosevelt Operating Guidelines: 1996

Strategies for achieving Lake Roosevelt biological objectives:

The following strategies will be employed to achieve Lake Roosevelt biological objectives:

- Operate the Lake Roosevelt kokanee hatcheries to produce 1 million age 1+ residualized smolt kokanee for release into Lake

- Roosevelt, including 500,000 reared in the hatcheries and 500,000 reared in net pens, and also produce 500,000 age 0+ rainbow fingerlings for the net pen program.
- Mark all hatchery kokanee to separate them from wild fish. Allow harvest of both marked and unmarked fish in warmwater months (May-September), but only marked fish in coldwater months (October-April). The intent of this strategy is that by marking all hatchery fish, catch-and-release strategies can be employed for wild fish, thereby reducing harvest on wild kokanee and, in effect, creating a terminal fishery for hatchery fish.
 - Perform baseline investigation to assess current status, determine habitat improvements necessary to achieve wild kokanee biological objectives and develop harvest management regulations to protect wild kokanee.
 - Construct and then continue to operate and maintain both kokanee and rainbow trout net pens.
 - Complete habitat improvements in selected tributaries to improve passage/habitat for adfluvial rainbow trout. Eliminate 10 migration barriers, reduce embeddedness by 25 percent, increase average canopy cover to 60 percent, introduce 100 pieces of large organic debris per mile (short-term), manage vegetation to promote large organic debris in future (long-term) and increase sinuosity to provide habitat diversity. Monitor tributaries to assess effectiveness and determine if interim targets are achieved.
 - Mark all net pen rainbow to separate them from wild fish.
- Continue Lake Roosevelt Fisheries Monitoring Program to monitor effectiveness of these measures, assess impact of reservoir operations on achieving biological objectives, and develop biological and integrated rule curves.

Coeur d'Alene Reservation Tributaries biological objectives:

Biological objectives for wild adfluvial cutthroat trout in tributaries on the Coeur d'Alene Indian Reservation include rebuilding to 75 percent of the optimal level for adult fish. This will be accomplished by achieving interim biological objectives (25 percent and 50 percent of optimal level) by the target dates noted in the following table:

Tributary	Target level (percent)*	Escapement target	+	Harvest target	=	Biological objective	Year
Lake Creek	25	5,346		12,877		8,223	2001
	50	10,695		5,751		16,446	2005
	75	16,042		8,626		24,668	2009
Benewah Creek	25	9,277		4,880		14,157	2001
	50	18,555		9,759		28,314	2005
	75	27,832		14,648		42,471	2009
Alder Creek	25	7,562		4,113		11,675	2001
	50	15,125		8,226		23,351	2005
	75	22,687		12,339		35,026	2009
Evans Creek	25	5,420		2,944		8,364	2001
	50	10,840		5,888		16,728	2005
	75	16,260		8,832		25,092	2009

* Percent improvement over current conditions.

Achievement of cutthroat trout biological objectives are related to enhancing habitat in each tributary to achieve the following conditions:

Lake Creek

Habitat Characteristics	Current Condition	Optimal Condition	Future Desired Condition (percent over current)			Difference		
			25	50	75	25	50	75
Average residual pool depth	1.9 ft	5.0 ft	2.4	2.9	3.4	0.5	1.0	1.5
Average canopy cover (thermal cover)	13.9%	75%	17.4	20.9	24.4	3.5	7.0	10.5
# Large woody debris/ Lineal distance	<0.1/m							
Rifflepool ratio	3.6:1	3:2	3:1	3:2	3:2	-.6	-1	0
Average percent fines	19.1%	<10%	14.3	8.4	3.2	-4.8	10.7	-15.5

Benewah Creek

Habitat Characteristics	Current Condition	Optimal Condition	Future Desired Condition (percent over current)			Difference		
			25	50	75	25	50	75
Average residual pool depth	2.0 ft	5.0 ft	2.5	3.0	3.5	0.5	1.0	1.5
Average canopy cover (thermal cover)	36.6%	75%	45.8	56.4	65.6	9.2	18.4	27.6
# Large woody debris/ Lineal distance	<0.1/m							
Rifflepool ratio	1.8:1	3:2	5:1	3:2	3:2	-.3	0	0
Average percent fines	10.9%	<10%	8.1	5.3	5.3	2.8	5.6	0

Alder Creek

Habitat Characteristics	Current Condition	Optimal Condition	Future Desired Condition (percent over current)			Difference		
			25	50	75	25	50	75
Average residual pool depth	2.0 ft	5.0 ft	2.5	3.0	3.2	0.5	1.0	1.5
Average canopy cover (thermal cover)	23.8%	75%	29.8	35.7	41.6	5.9	11.8	17.7
# Large woody debris/ Lineal distance	<0.1/m							
Rifflepool ratio	1.2:1	3:2	1.2:1	NC	NC	0	0	0
Average percent fines	37.6%	<10%	28.2	18.8	9.4	9.4	18.8	28.8

Evans Creek

Habitat Characteristics	Current Condition	Optimal Condition	Future Desired Condition (percent over current)			Difference		
			25	50	75	25	50	75
Average residual pool depth	2.5 ft	5.0 ft	3.1	3.6	4.3	0.6	1.2	1.8
Average canopy cover (thermal cover)	40.1%	75%	50	60	70	10	20	30
# Large woody debris/ Lineal distance	<0.1/m							
Rifflepool ratio	10.9:1	3:2	7.9:1	5.3:1	2.6:1	-2.6	-5.3	-7.9
Average percent fines	16.8%	<10%	12.6	8.4	4.2	4.2	8.4	12.6

Additionally, produce 25,000 catchable rainbow trout for stocking into trout ponds to provide an interim subsistence and recreation fishery for Coeur d'Alene Tribal members.

Strategies for achieving Coeur d'Alene Reservation Tributaries biological objectives:

The following strategies will be employed to achieve Coeur d'Alene tributaries biological objectives:

- Enhance habitat on Alder, Benewah, Evans and Lake Creeks to achieve interim 25 percent, 50 percent, and final 75 percent habitat improvement targets by specified dates.
- Purchase critical watershed areas (riparian corridors and associated uplands) along these four tributaries within the boundaries of the Coeur d'Alene Indian Reservation. Construct and operate a low-capital trout hatchery and trout ponds.
- Monitor tributaries to determine if habitat remains improved, and harvest and escapement goals are met.

Biological objectives for kokanee salmon in the Kootenai River:

- Restore the historic kokanee fishery exploited by the Kootenai Tribe of Idaho in four Kootenai River tributaries to meet the following total population, harvest and escapement targets. Fish should weigh about a half pound apiece.

Stream	Harvest + pop.#	Escapement = pop.#	Biological Objective	Type of Objective	Year Accomplished
Parker Creek	0	350	350	interim	2000
	200	500	700	long-term	2008
Long Canyon creek	800	800	1,600	interim	2000
	2,144	1,056	2,300	long-term	2008
Smith Creek	100	500	600	interim	2000
	700	500	1,200	long-term	2008
Boundary Creek	550	550	1,100	interim	2000
	1,474	726	2,200	long-term	2008

Strategies to achieve Kootenai River kokanee salmon biological objectives:

- Restore spawning habitat in Parker, Long Canyon, Smith and Boundary creeks, tributaries to the Kootenai River.
- Explore various strategies including instream incubation of eggs and supplementation to enhance survival.

Biological objectives for largemouth bass, bull trout and cutthroat trout in the Box Canyon Reservoir and tributary streams:

These biological objectives are for the entire system. Specific interim and final targets for each tributary will be established upon completion of detailed habitat and fish population assessments that are currently under way.

- Increase the biomass of harvestable largemouth bass in the Box Canyon Reservoir from current 6 pounds/acre (44,400 pounds for entire reservoir) to an interim target of 8 pounds/acre (59,200 pounds for entire reservoir) by 2003 and final target of 12 pounds/acre (88,800 for entire reservoir) by 2008. The interim net gain will be 14,800 pounds of harvestable largemouth bass. The final net gain will be 44,400 pounds of harvestable largemouth bass.
- Increase 0+ largemouth bass overwinter survival from current levels of 0.4-3.9 percent to approximately 15-20 percent. This increase in overwinter survival will

contribute to the goal of 12 pounds/acre of harvestable bass.

- Attain densities (all age classes) of 9.8 bull trout/100 square meters (or 390 fish/linear mile) age class in the upper one third of each major tributary system. This equates to 97,410 bull trout (all age classes) in approximately 250 miles of suitable tributary habitat in the system . Total numbers of adult bull trout recruited to the fishery will be 4,410 fish, composed of an escapement of 2,205 fish and harvest of 2,205 fish, by 2016.
- Interim bull trout targets are established at 48,855 total fish (all age classes), including a total of 2,205 fish recruited to the fishery, composed of an escapement of 1,102 fish and harvest of 1,103 fish, by 2006.
- Attain population of 242,212 adult fish in 500 miles of suitable cutthroat trout habitat in the system, including an escapement of 156,800 fish and harvest of 85,412 fish by 2016.
- Interim cutthroat trout targets are established at 121,106 total adults recruited to the fishery, composed of an escapement of 78,400 fish and harvest of 42,706 fish by 2006.

Strategies to achieve biological objectives for largemouth bass, bull trout and cutthroat trout in Box Canyon Reservoir and tributary streams:

- Operate and maintain low-capital warm water hatchery constructed on the Kalispel Indian Reservation to produce 100,000 largemouth

bass fry and 50,000 fingerlings for release into Box Canyon Reservoir. Stocking will include 50,000 age 0 fry and 50,000 age 1 fingerlings released directly into Box Canyon Reservoir and 50,000 fry to be stocked into and reared to fingerling size in two rearing sloughs located on the Pend Oreille wetlands wildlife mitigation project.

- Construct, operate and maintain water control structures on the Pend Oreille wetlands wildlife project for the purpose of creating bass nursery sloughs.
- Construct, place and maintain artificial cover structures to increase the amount of bass age 0 fry winter cover in the Box Canyon Reach of the Pend Oreille River. The purpose of placing cover is to increase overwinter survival of age 0 largemouth bass.
- Monitor effectiveness of largemouth bass supplementation.
- Complete bull trout and cutthroat trout habitat and population inventories to develop specific biological objectives and conduct advance designs for habitat improvements in each tributary.
- Construct, operate and maintain habitat improvements for bull trout and cutthroat trout in tributary streams.
- Monitor effectiveness of habitat enhancement projects.

Biological objectives for lakes and streams on the Colville Indian Reservation:

Biological objectives for lakes and streams on the Colville Indian Reservation include production of 50,000 pounds of resident fish at the Colville Tribal Hatchery for distribution

into reservation waters, including boundary waters, to provide a high quality subsistence/recreational fishery for Colville Tribal members as well as a non-member sport fishery. For the purposes of this program, a high quality fishery on the Colville Reservation is defined as: subsistence/ recreational fisheries that provide at a minimum 1 fish per hour catch-per-unit-effort and average fork lengths of 13.5 inches for rainbow trout (KFL \geq 1.0), 12.0 inches for brook trout (KFL \geq 1.0), and 20.0 inches for Lahontan cutthroat trout (KFL \geq 0.9). Specific annual production targets include:

- Production of 2,500 pounds of fingerling rainbow trout (200,000 fish).
- Production of 13,000 pounds of subcatchable rainbow trout (300,000 fish).
- Production of 15,000 pounds of catchable rainbow trout (81,000 fish).
- Production of 2,200 pounds of fingerling brook trout (176,000 fish).
- Production of 13,200 pounds of subcatchable brook trout (300,000 fish).
- Production of 4,500 pounds of Lahontan cutthroat (90,000 fish).

Additionally, in reservation waters, increase natural production of brook trout by 10 percent and rainbow trout by 15 percent by 2000.

Strategies for achieving biological objectives for lakes and streams on the Colville Indian Reservation:

- Continue Bonneville funding of the operation and maintenance of the Colville Tribal Fish Hatchery to produce 50,000 pounds of resident fish consistent with biological

objectives. Monitor and evaluate success in terms of achieving catch-per-unit-effort and fish growth targets.

- Continue the current on-reservation brood sources for brook and Lahontan cutthroat trout, and develop an on-reservation brood source for rainbow trout.
- Provide rearing conditions that prevent fin abrasion, prevent bacterial and viral diseases and prevent parasitic infestations.
- Initiate a fish marking program to assess the contribution of various size fish to the fishery, including both the creel and natural production.
- Improve reservation lake and stream spawning and rearing habitat.
- Monitor and evaluate effectiveness of enhancement measures.

Biological objectives for Moses Lake and Ford Hatchery:

Specific biological objectives have not yet been identified for enhancing the warm water fishery at Moses Lake, pending recommendations of a baseline investigation being performed by the Washington Department of Fish and Wildlife. The biological objective for the Ford Hatchery is production of 35,000 additional pounds of resident trout for planting in northwest Washington lakes and streams.

Strategies for achieving biological objectives at Moses Lake and Ford Hatchery:

- Perform baseline investigations to determine biological objectives and identify fishery enhancement measures. Complete these studies and make recommendations to the Council by December 31, 1998.
- Improve water supply at Ford Hatchery to rear additional 35,000 lb. of resident trout and provide operation and maintenance expenses to rear these fish.

Measures and time frames for Resident Fish Substitution above Chief Joseph and Grand Coulee Dams:

The resident fish substitution projects for above Chief Joseph/Grand Coulee also include the operating criteria for Grand Coulee Dam described in Measures 10.3E.3 to 10.3E.5.

Bonneville

- 10.8B.1 Fund the following resident fish substitution activities and in the blocked area above Chief Joseph Dam to partially mitigate for salmon and steelhead losses incurred as a result of the construction and operation of Chief Joseph and Grand Coulee dams.

Spokane Tribe

- 10.8B.2 Operate and maintain kokanee salmon hatcheries at Galbraith Springs and Sherman Creek. Use the Sherman Creek hatchery as an imprinting site and egg collection facility to provide a source of kokanee fry for transferring to Galbraith Springs hatchery for

rearing to the residualized smolt stage before planting into Lake Roosevelt. Coordinate decisions on hatchery production, stocking and outplanting locations through a three-member committee consisting of one representative each appointed by the Confederated Tribes of the Colville Reservation, the Spokane Tribe of Indians and the Washington Department of Fish and Wildlife.

- 10.8B.3 Add a new production well, capable of producing 2.5 to 3.0 cubic feet per second of additional flow, for the Spokane Tribal Kokanee Hatchery by January 1996. The purpose of this action is to allow for 500,000 kokanee to be reared to residualized smolt size at the Spokane Tribal Hatchery before release into Lake Roosevelt.
- 10.8B.4 The Council has been presented with evidence that kokanee released as residualized smolts contribute more to the fishery and return to egg collection sites at a higher rate than fish released as fry. In collaboration with the Washington Department of Fish and Wildlife and Colville Tribes, construct and operate 20 net pens for rearing kokanee salmon (25,000 fish/pen) to post-smolt size in Lake Roosevelt. This shall include 16 net pens, dock and anchoring system at Sherman Creek and four net pens at Seven Bays. Bonneville shall conduct an environmental assessment for the project in 1995, with construction in 1996.
- 10.8B.5 In collaboration with the Colville Confederated Tribes and the Washington Department of Fish and Wildlife, monitor and evaluate the Lake Roosevelt biota to assess the effectiveness of Measures 10.8B.2 to 10.8B.4, 10.8B.9, 10.8B.11 and 10.3E.3 to 10.3E.5 and determine

impacts of reservoir operations on achieving the biological objectives addressed by these measures. Specifically, this measure will identify changes in the kokanee, rainbow and walleye fisheries as a result of the above measures and develop biological and integrated rule curves for Lake Roosevelt to define the operations necessary to sustain the resident fish populations. The following tasks will be completed as part of this measure:

- Conduct a year-round reservoirwide creel survey to determine angler use, catch rates and composition, harvest by species, harvest of wild versus hatchery (or net pen) fish growth and condition of fish harvested number of anglers using Lake Roosevelt and the angler's contribution to the local economy. This information will determine if the biological objectives are being met, identify hatchery release strategies that provide the most fish for harvest and indicate changes in the number of harvested fish in relation to lake operations.
- Conduct monthly relative-abundance surveys by electrofishing, hook and line, gill netting, and/or trawling at nine index sites to collect fisheries population information (i.e., fish growth and condition, species composition, number of wild versus hatchery fish, diet habits of kokanee, rainbow and walleye, and prey availability). Tagged and marked fish will be collected to determine the most effective hatchery release strategies and kokanee ability to home back to the release sites during spawning migration. The data collected will

- also be used to determine the health of the fisheries.
- Collect zooplankton weekly at 9 sites within Lake Roosevelt and two sites in Rufus Woods. The biomass of each species collected will be determined in order to identify the biomass availability for fish consumption, correlate lake water retention time with zooplankton biomass, determine the potential productivity of zooplankton and determine entrainment rates of zooplankton during different lake operations.
 - Model zooplankton population dynamics and reproduction rates to identify the effect of water retention time, water temperature and fish predation on zooplankton's population dynamics. The model will predict biomass of zooplankton during different hydrological lake conditions.
 - Monitor reservoir hydrology weekly at 11 sites (i.e., lake elevation, water retention time, water temperature, pH, conductivity, etc.). Biological productivity of the lake will be related to reservoir hydrology in order to develop the biological rule curve.
 - Conduct a mark/recapture study of hatchery-reared kokanee and rainbow by tagging 50 percent of hatchery kokanee with coded-wire tags and tag 20 percent of the hatchery rainbow trout reared in net pens with floy tags. Mark all remaining hatchery fish (both kokanee and rainbow) with fin clips. Tagged fish recovered by anglers and relative abundance surveys will be used to determine the release strategies that maximize harvest and adult returns to egg collection facilities while minimizing entrainment.
 - Monitor the number of tagged kokanee and rainbow entrained through Grand Coulee Dam by creel surveys in Rufus Woods Reservoir and monitor the number of tagged fish collected at Rock Island Dam fish passage facility. This task will identify the entrainment rate of kokanee and rainbow, which will be related to lake operations in order to identify operations that cause entrainment.
 - Drip synthetic chemicals at hatcheries to imprint hatchery-reared kokanee, and drip synthetic chemicals at egg collection facilities to encourage the return of spawning adults. This task will increase the number of kokanee returning to egg collection facilities so that a self-sustaining egg source can be developed.
 - Conduct daily creel surveys and weekly electrofishing surveys at egg collection sites from September 1 to October 31 to collect tagged kokanee. The collected tagged fish will indicate kokanee release strategies that maximize the number of adults returning. This information also will be used to determine the ability of kokanee to follow the scent of synthetic chemicals to egg collection sites.
 - Map the availability of fish habitat in Lake Roosevelt at different lake elevations. The map will be used to estimate the change in fish habitat availability with changes in lake elevations.
 - In collaboration with appropriate states and tribes, compile and analyze data from studies completed by other investigators in Lake Roosevelt. The information gathered from other studies, past and present, will be used to evaluate kokanee and rainbow

release strategies and develop biological rule curves.

- In collaboration with appropriate state and federal agencies, develop a computer simulation model that will predict the best reservoir operations for the resident fish populations in Lake Roosevelt. This model will be used to create the biological rule curve. The development of a biological rule curve will stabilize the ecosystem, facilitating the development of a viable fishery. This rule curve will also balance reservoir conditions needed for resident fish with flows needed for anadromous fish.
- In collaboration with appropriate state and federal agencies, develop an integrated rule curve that will incorporate the biological rule curve with the flood control, power irrigation rule curves, and anadromous fish and wildlife rule curves.
- In collaboration with appropriate state and federal agencies, continue the monitoring and evaluation program at least through the year 2005. A biological rule curve will be presented to the Council in 1998. An integrated rule curve will be presented in 1999. The rule curve will be evaluated through the year 2005.

Colville Tribes

- 10.8B.6 Operate and maintain the resident trout hatchery on the Colville Indian Reservation. Monitor and evaluate this measure.
- 10.8B.7 In collaboration with the Spokane Tribe and Washington Department of Fish and Wildlife, evaluate natural production of kokanee above Chief Joseph Dam including Nespelem River,

Big Sheep Creek, Alder Creek, Deep Creek, Orapaken Creek, Onion Creek and the San Poil River. The purpose of this measure is to evaluate the status of naturally producing kokanee, determine what measures are necessary to ensure self-sustaining populations and determine the feasibility of using these fish in the ongoing kokanee hatchery program in this area. The evaluation will involve electrophoretic evaluation, egg-fry survival determination, kokanee spawning escapement and kokanee entrainment. This project will be initiated in 1995 and completed by 2000.

- 10.8B.8 Identify and study the feasibility of alternatives for preventing resident fish from being swept downstream out of Grand Coulee Reservoir. This investigation will assess the number of individuals entrained, by species and life stage, at different seasons and under different operating conditions. It will also establish routes by which fish are entrained under different reservoir elevations and operating conditions. This investigation will be coordinated with the Lake Roosevelt Monitoring Program (Section 10.8B.5). Complete these studies and make recommendations to the Council by December 31, 1997.
- 10.8B.9 In collaboration with the Spokane Tribe and Washington Department of Fish and Wildlife, operate and maintain pilot projects for improving habitat and passage into and out of Lake Roosevelt tributary streams for rainbow trout. The aim of this measure is to emphasize natural production by: 1) facilitating passage of migratory rainbow trout between Lake Roosevelt and its tributary streams; and 2) improving fry and fingerling rearing habitat in these streams.

10.8B.10 In collaboration with the Spokane Tribe and Washington Department of Fish and Wildlife, monitor and evaluate effectiveness of the pilot projects in Section 10.8B.9 by trapping and marking adult and juvenile fish in tributary streams, estimating fish populations and habitat within the tributaries, and conducting creel surveys on each tributary. Contribution of these fish to the Lake Roosevelt fishery shall be determined by the Lake Roosevelt Monitoring Program (Section 10.8B.5). Pilot projects will be completed in 1995. Monitoring and evaluation will start in 1996 and continue to 2000. At that time, the Council will expect to receive a report that recommends one of the following alternatives: 1) continued operation and maintenance of pilot projects, plus improving habitat in additional tributaries if interim biological objectives of pilot projects are achieved; 2) additional monitoring, in the event the interim biological objectives are not met by 2,000 but there is reason to suspect they may be achieved in the near future; or 3) discontinue project if the interim biological objectives are not met and the reason for failure is understood and not correctable.

Lake Roosevelt Forum

10.8B.11 Implement the rainbow trout net pen rearing program in Lake Roosevelt including: 1) operation and maintenance of 26 existing net pens; and 2) procurement, operation and maintenance of 10 additional net pens. As a condition of Bonneville funding, operation of the net pen rearing program will be coordinated and consistent with the management policies of the Lake Roosevelt Fisheries Management Committee (see Section

10.8B.2), including those addressing stock selection and release strategies. In addition, continue voluntary contributions and private sector funding as a cost-share for the net pen rearing program.

Kalispel Tribe

10.8B.12 Design, construct, operate and maintain a warmwater low-capital bass hatchery on the Kalispel Indian Reservation. Mark all hatchery production. Design will commence in 1995, and construction will be completed by 1996.

10.8B.13 Design, construct, operate and maintain for two years, a yellow perch aquaculture facility on the Kalispel Indian Reservation. Design will commence in 1996, with construction completed by 1998.

10.8B.14 In collaboration with the Washington Department of Fish and Wildlife, conduct studies to determine the status of existing bull trout and cutthroat trout populations in the Pend Oreille River and its tributaries. Studies to be performed shall include: 1) determination of population densities, population abundance of each age class, growth, and feeding habits of bull trout in the Pend Oreille River and its tributaries; 2) radiotelemetry studies will be performed to identify migration patterns and areas that are utilized for spawning; 3) electrofishing, migration trapping and netting, in combination with mark/recapture investigations, will be performed to identify resident and adfluvial stocks that remain in the mainstem Pend Oreille and its tributaries; and 4) non-lethal biopsy samples will be collected to investigate genetic variability among different tributaries. This investigation will occur from 1995 to 1997.

- 10.8B.15 In collaboration with the Washington Department of Fish and Wildlife, complete advanced designs, and construct, operate and maintain habitat improvement projects to enhance bull trout and cutthroat trout in all tributaries in the Box Canyon Reach of the Pend Oreille River. Designs for three demonstration tributaries, Cee Cee Ah Creek, Skookum Creek and LeClerc Creek, will be completed in 1995, with construction occurring in 1996 and 1997. The remaining tributaries will be prioritized upon completion of Section 10.8B.14. The Washington Department of Fish and Wildlife and Kalispel Tribe will submit recommended habitat improvements, implementation schedules and detailed biological objectives for each tributary to the Council for approval in 1997. The Council will act promptly to consider these recommendations.
- 10.8B.16 Working with the U.S. Forest Service and Washington Department of Fish and Wildlife, remove exotic brook trout in Cee Cee Ah Creek in 1996.
- 10.8B.17 Design, construct, operate and maintain water control structures and repair dikes on the Pend Oreille wetlands wildlife mitigation project for the purpose of creating a bass nursery slough. Stock a portion of the bass production from the Kalispel Tribal hatchery (Measure 10.8B.12) into this slough in an attempt to cut hatchery production costs because fry can prey on natural foods. Screen the water control structures to prevent access by reservoir species that prey on bass fry. Design will occur in 1995, with construction and operation commencing in 1996.
- 10.8B.18 Construct and place artificial cover structures to increase the amount of bass fry winter cover in the Box Canyon Reach of the Pend Oreille River. Design will occur in 1995, with construction and placement of the structures in 1996 and 1997.
- 10.8B.19 In collaboration with the Washington Department of Fish and Wildlife, conduct a four-year monitoring program to assess effectiveness of bull trout and cutthroat trout habitat improvements in tributary streams and hatchery supplementation of largemouth bass in the Pend Oreille River. Monitoring will start in Cee Cee Ah, Skookum and LeClerc Creeks starting in 1998 (for cutthroat and bull trout) and in the Pend Oreille River in 1997 (for largemouth bass).

Coeur d'Alene Tribe

10.8B.20 Implement habitat restoration and enhancement measures in Lake, Benewah, Evans and Alder Creeks located within the Coeur d'Alene Indian Reservation including: 1) construct, operate and maintain water storage facilities adjacent to streams for water recruitment and to provide juvenile rearing habitat (trout refugia); 2) restore stream riparian zone through plantings, fencing and stream bank stabilization; 3) provide for off-site livestock watering areas; 4) construct lateral/side channels for juvenile rearing habitat and provide overflow or "flood" channels to help relieve peak flow increases; and 5) place large woody debris in channels to increase instream cover.

Also, 1) purchase critical watershed areas (riparian corridors, sensitive wetland and upland areas) for protection of fisheries habitat; 2) conduct an educational/outreach program for private landowners and the general public within the Coeur d'Alene Reservation to develop a "holistic" watershed protection process; 3) develop an interim fishery for tribal and non-tribal members of the reservation through construction, operation and maintenance of trout ponds; 4) design, construct, operate and maintain a trout production facility on the Coeur d'Alene Reservation; and 5) implement a five-year monitoring program to evaluate the effectiveness of the hatchery and habitat improvement projects.

Implementation of the above measures should be according to the following schedule: (i) in 1995, develop master plan and environmental assessment of the program, conduct habitat demonstration projects on Lake and

Benewah Creeks and develop an educational outreach program; (ii) in 1996, complete master planning process and environmental assessment of the project, implement habitat improvement projects on Lake and Benewah Creeks, conduct an educational outreach program, advanced designs of hatchery and trout ponds and purchase land for hatchery and trout ponds; (iii) in 1997, construct and operate trout ponds and wells, begin construction of hatchery and well, implement habitat improvement projects on Lake, Benewah and Evans Creeks, continue educational outreach program; (iv) in 1998, continue hatchery and trout pond operation and maintenance, weir trapping of spawners, habitat improvements on Evans and Alder Creeks, and educational outreach program; (v) in 1999, continue habitat improvement projects, as well as operation and maintenance for hatchery, trout ponds, weir trapping of spawners and habitat improvement projects; (vi) from 2000 - 2004, monitor and evaluate restoration projects and (vii) for an indefinite period, continue to operate and monitor hatchery, trout pond and habitat improvement projects.

10.8B.21 Conduct a NEPA analysis, a habitat analysis and a land value appraisal of a 2,100 acre wetland/riparian and associated upland parcel in the Lake Creek drainage and Windy Bay area of Lake Coeur d'Alene in Fiscal Year 1996. This is to be credited for: 1) 250 acres of wildlife habitat losses due to Albeni Falls Dam (Table 11-04 in the Wildlife Section) on Lake Pend Oreille, an aboriginal use area of the Tribe, and 2) as a resident fish substitution for extensive salmon losses due to Grand Coulee Dam. Bonneville is to purchase a land option and transfer title to the Bureau of Indian Affairs to be put into

trust for the Coeur d'Alene Tribe. In Fiscal Year 1997, complete the land purchase and begin habitat enhancement activities, initiating long-term operation and maintenance and monitoring and evaluation.

Kootenai Tribe of Idaho

- 10.8B.22 Perform a five-year Kootenai River ecosystem status determination and improvement study. The study should include elements that will: 1) provide a comprehensive ecosystem status report; 2) evaluate the biological feasibility of restoring system productivity; 3) identify effects of hydropower operations (Libby Dam) on aquatic biota and fish assemblages; and 4) develop, evaluate, test and analyze solutions to ecosystem problems caused by factors currently limiting system productivity, such as nutrient limitation and hydropower effects.

Washington Department of Fish and Wildlife

- 10.8B.23 Conduct baseline investigations to identify biological objectives for Moses Lake and determine the most feasible measures for enhancing the Moses Lake fishery to achieve these objectives. Include assessment of the current availability and use of spawning, rearing and cover habitats including hydrological and limnological factors associated with each as well as evaluating the age class structure, species composition and biological interaction occurring within the lake. The Council expects this investigation to start in Fiscal Year 1996 and be completed by December 31, 1998. The Department shall submit biological objectives and recommendations for fishery improvement to the Council for

consideration in the next amendment process after that date.

- 10.8B.24 Improve water supply at Ford Hatchery to rear 35,000 pounds of resident trout and kokanee for stocking into Banks Lake and other northeastern Washington Lakes. Fund operation and maintenance cost for rearing these fish.

Washington Department of Fish and Wildlife and Appropriate Tribes

- 10.8B.25 Plan, engineer, design, construct, operate and maintain improvements to the Department's Phalon Lake wild rainbow trout trapping facility. These improvements will allow the continuation and possible expansion of the Kettle River wild rainbow stocking program into other upper Columbia River Basin waters.

Bonneville

- 10.8B.26 Fund a cooperative project among the Confederated Colville Tribes, Kalispel Tribe, Spokane Tribe, and the Washington Department of Fish and Wildlife to assess stock status of resident fish species and associated habitats in the areas above Chief Joseph and Grand Coulee Dams.
- (a) Phase I. Assess existing data and develop a database, identify data gaps and develop standardized data collection methodologies.
 - (b) Phase II. Conduct field sampling to gather the needed data, assess data and identify management, protection and recovery efforts.

- (c) Phase III. Implement management, protection, recovery, monitoring and evaluation.

10.8C Resident Fish Substitution Projects Above Hells Canyon Dam

The following resident fish substitution activities and projects in the blocked area above Hells Canyon Dam will partially mitigate for salmon and steelhead losses incurred in this blocked area as a result of the construction and operation of hydropower projects in the Columbia River Basin.

Shoshone-Paiute Tribes

- 10.8C.1 Annually stock catchable and fingerling trout of the appropriate stocks in Duck Valley Indian Reservation lakes and streams.
- 10.8C.2 Review Duck Valley Indian Reservation surface water and groundwater suitability for resident fish production facilities. Initiate a comprehensive genetic sampling program of the redband trout in Owyhee Basin. Based on results of these studies, develop and implement strategies to protect wild redband trout populations from potential impacts caused by hatchery programs.
- 10.8C.3 Evaluate alternative sources of catchable and fingerling resident fish.
- 10.8C.4 Analyze feasibility of developing an additional lake fishery at Coyote Sink. Submit feasibility study with recommendations to the Council. Implement upon Council approval of recommendations.
- 10.8C.5 Implement, monitor and evaluate resident fish habitat improvement and protection measures at the Duck Valley Indian Reservation. Include the following habitat protection and improvement measures: 1) management recommendations for reservoir pool levels; 2) reservoir rehabilitation measures for non-game fish and aquatic vegetation control; 3) reservoir inlet and outlet screening; 4) improvement of recreational fishing sites; 5) stream riparian zone restoration by planting vegetation, fencing overgrazed areas and stream bank stabilization; and 6) base-line water quality survey to assess contaminants that may affect trout populations.
- 10.8C.6 Acquire or construct a trout production facility and operate and maintain the facility for the production of trout for stocking on the Duck Valley Indian Reservation and elsewhere. Assess opportunities for joint production strategies with the Shoshone-Bannock Tribe, including the training of tribal members in fish culture.

Bonneville

- 10.8C.7 Fund the Shoshone-Paiute Tribe projects listed above.

Bonneville, Bureau of Reclamation, Idaho Power Company, Fish and Wildlife Managers

- 10.8C.8 In cooperation with other relevant entities as listed in Section 3.1D, develop and implement the subregional process for the area above Hells Canyon Dam. Immediately meet to identify an approach for developing the subregional process, and identify funding responsibilities for developing

the process. The process will identify funding commitments for additional resident fish substitution projects by Bonneville, by Idaho Power Company through hydropower project relicensing activities, by the Bureau of Reclamation through operation and management responsibilities, as well as by other appropriate parties. Additional resident fish substitution projects may include propagation and release of kokanee and coho stocks into Lucky Peak and Cascade reservoirs. Include in this process the development of a comprehensive approach to coordinating anadromous fish, resident fish and wildlife activities. Submit to the Council by December 31, 1994.

maintain, monitor and stock the additional fish ponds.

10.8D Resident Fish Substitution Projects Above Dworshak Dam

Bonneville

- 10.8D.1 Fund the following resident fish substitution actions in the blocked area above Dworshak Dam to mitigate partially for salmon and steelhead losses incurred as a result of the construction and operation of hydropower projects in the Columbia River Basin.

Nez Perce Tribe

- 10.8D.2 Develop, maintain and manage trout ponds within the Nez Perce Indian Reservation including: 1) physically improve, maintain, monitor and stock two existing trout ponds; 2) identify through site inventory and analysis additional sites suitable for fish pond construction; 3) construct six to 12 additional fish ponds, depending on availability of suitable sites; and 4)

10.8E Resident Fish Substitution Projects Above Pelton Dam

Bonneville and Portland General Electric Company

- 10.8E.1 Fund resident fish substitution projects above Pelton Dam on an equal-share basis. These projects will partially mitigate for salmon and steelhead losses in this blocked area as a result of the construction and operation of hydropower projects in the Columbia River Basin.

Warm Springs Tribe

- 10.8E.2 Determine how the crayfish population in Lake Billy Chinook fits into the altered ecosystem. Include specific objectives of determining sex, size composition, growth rate and size at maturity of the crayfish population; size, relative abundance, and seasonal movement of the crayfish population; potential availability as a significant food item, especially for bull trout; and management recommendations.

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Section 11

WILDLIFE

The development of the hydropower system in the Columbia River Basin has affected many species of wildlife as well as fish. Some floodplain and riparian habitats important to wildlife were inundated when reservoirs were filled. In some cases, fluctuating water levels caused by dam operations have created barren vegetation zones, which expose wildlife to increased predation. In addition to these reservoir-related effects, a number of other activities associated with hydroelectric development have altered land and stream areas in ways that affect wildlife. These activities include construction of roads and facilities, draining and filling of wetlands, stream channelization and shoreline riprapping (using large rocks or boulders to reduce erosion along streambanks). In some cases, the construction and maintenance of power transmission corridors altered vegetation, increased access to and harassment of wildlife, and increased erosion and sedimentation in the Columbia River and its tributaries.

The habitat that was lost because of the hydropower system was not just land, it was home to many different, interdependent species. In responding to the system's impacts, we should respect the importance of natural ecosystems and species diversity.

While the development of the hydropower system harmed wildlife, it also resulted in a number of beneficial effects. For example, the creation of reservoirs provided important resting, feeding and wintering habitat for waterfowl. In addition, where reservoir storage is used for irrigation as well as power generation, the irrigation water promoted extensive growth of grass and food crops that could not otherwise exist in such a dry climate. These areas have provided important habitat for wildlife. On the other hand, many acres of native shrub and

grasslands providing habitat for a variety of native wildlife species were replaced, and a large body of scientific evidence shows that some of the species have not sustained initial population increases. Programs to protect, mitigate and enhance wildlife affected by hydroelectric development should consider the net effects on wildlife associated with hydropower development.

Although the Northwest Power Act refers to them as "hydropower facilities," the dams serve multiple purposes: hydropower, flood control, navigation, irrigation, recreation and other purposes. Congress encouraged a comprehensive response to the fish and wildlife impacts of dams on the Columbia River and its tributaries, and rejected the piecemeal, fragmented approach that characterized past mitigation efforts. The Council believes the region will benefit from a coordinated approach to wildlife mitigation. At the same time, as Congress specified, consumers of electric power should pay only the cost of measures to deal with the effects of electric power. The Act gives the Bonneville Power Administration the responsibility to allocate expenditures to the various project purposes, in consultation with the Corps of Engineers and the Bureau of Reclamation, and in accordance with existing accounting procedures.

The Council's program will address the full impacts of the "hydropower facilities" in the broad sense that Congress intended, including all effects traceable to any of the projects' purposes. Bonneville, in consultation with the Army Corps of Engineers and the Bureau of Reclamation, should allocate implementation costs, and develop any cooperative agreements needed to ensure coordinated and expeditious program implementation.

It is critical, however, that implementation of wildlife measures not be delayed by these allocation procedures. Bonneville funding for the ratepayer share of wildlife mitigation should proceed expeditiously, pursuant to short-term agreements. There is no reason for ratepayer wildlife mitigation in the short term to wait for a determination of the financial responsibility of other project purposes. For the longer term, if there is no agreement on funding allocations, the federal agencies should work with the Council and the Congressional delegation to arrive at a solution.

11.1 WILDLIFE PROGRAM GOAL: FULLY MITIGATE FOR WILDLIFE LOSSES FROM HYDROPOWER IN THE COLUMBIA RIVER BASIN

The goal of this program's wildlife strategy is to achieve and sustain levels of habitat and species productivity as a means of fully mitigating wildlife losses caused by construction and operation of the federal and non-federal hydroelectric system.

11.2 WILDLIFE PROGRAM POLICIES

11.2A Ratepayer Share of Funding

Bonneville, the Corps and the Bureau of Reclamation have jointly determined that the percent of joint costs of the Federal Columbia River Power System allocated to power for systemwide fish and wildlife mitigation is 72 percent. The hydropower system is therefore responsible for mitigation for 72 percent of the lost habitat units identified in Table 11-4.

Bonneville

11.2A.1 To develop a comprehensive coordinated wildlife mitigation strategy, in consultation with other responsible operators and managers, coordinate ratepayer-funded measures with measures that address impacts caused by non-electric power development and operations. The parties should develop any cooperative agreements necessary to ensure coordinated and expeditious program implementation and should submit them to the Council for review and approval by December 1, 1994. Should the parties fail to develop agreements necessary to ensure coordinated program implementation, the Council will take the actions necessary to ensure that such agreements are developed.

11.2A.2 Report to the Council yearly on progress to date on all coordinated wildlife mitigation activities.

11.2B Determine Allocation of Effort

**Bonneville, Corps of Engineers,
Bureau of Reclamation and
Wildlife Managers**

11.2B.1 Determine the allocation of expenditures by the relevant federal entities needed to achieve full mitigation of wildlife losses attributable to the construction and operation of the federal hydroelectric facilities.

11.2C Definition of Mitigation

Relevant Parties

11.2C.1 For purposes of this program, mitigation is defined as achieving and sustaining the levels of habitat and species productivity for the habitat units lost as a result of the construction and operation of federal and non-federal hydropower projects.

11.2D Mitigation Plans and Agreements

Bonneville and Wildlife Managers

11.2D.1 In developing wildlife mitigation plans and projects, demonstrate the extent to which the plans comply with the following principles:

- Are the least-costly way to achieve the biological objective.
- Have measurable objectives, such as the restoration of a given number of habitat units.
- Protect high quality native or other habitat or species of special concern, whether at the project site or not, including endangered, threatened or sensitive species.
- Provide riparian or other habitat that can benefit both fish and wildlife.
- Where practical, mitigate losses in-place, in-kind. When a wildlife measure is not in-place, in-kind, the habitat units protected, mitigated or enhanced by that measure will be credited against mitigation due for one or more hydroelectric projects.
- Help protect or enhance natural ecosystems and species diversity over the long term.
- Complement the activities of the region's state and federal wildlife agencies and Indian tribes. In particular, state clearly how plans

or projects would complement agency and tribal policies or programs to protect or enhance natural ecosystems and species diversity over the long term.

- Encourage the formation of partnerships with other persons or entities, which would reduce project costs, increase benefits and/or eliminate duplicative activities.
- Do not impose on Bonneville the funding responsibilities of others, as prohibited by Section 4(h)(10)(A) of the Northwest Power Act.
- Address special wildlife losses in areas that formerly had salmon and steelhead runs that were eliminated by hydroelectric projects (for example, societal and tribal wildlife losses).
- Address concerns over additions to public land ownership and impacts on local communities, such as reduction or loss of local government tax base, special district tax base or the local economic base; or consistency with local governments' comprehensive plans.
- Use publicly owned land for mitigation or management agreements on private land, in preference to acquisition of private land, while providing permanent protection or enhancement of wildlife habitat in the most cost-effective manner.

11.2E Mitigation Priorities

Bonneville and Wildlife Managers

11.2E.1 Ensure that wildlife mitigation projects implemented in fulfillment of this program are consistent with the

basinwide implementation priorities described in Tables 11-1, 11-2 and 11-3, below.

<i>Table 11-1</i>	
<i>Lower Columbia Subbasin Wildlife Mitigation Priorities</i>	
Habitat Types--Target Species	Priority
Riparian/Riverine	High
• Great Blue Heron	
Old Growth Forest	High
• Northern Spotted Owl	
Wetlands	High
• Great Blue Heron	
• Band-tailed Pigeon	
• Western Pond Turtle	
Coniferous Forest	Medium
• Ruffed Grouse	
• Elk	
• American Black Bear/Cougar	

<i>Table 11-2</i> <i>Upper Columbia Subbasin Wildlife Mitigation Priorities</i>	
Habitat Types--Target Species	Priority
Riparian/River	High
• Bald Eagle (breeding)	
• Black-capped Chickadee	
• Peregrine Falcon	
Shrub-Steppe	High
• Sharp-tailed Grouse	
• Pygmy Rabbit	
• Sage Grouse	
• Mule Deer	
Wetlands	High
• Mallard	
• Redhead	
Islands	Medium
• White Pelicans	
Agricultural Lands	Low
• Swainson's Hawk	
• Ring-necked Pheasant	

Table 11-3
Snake River Subbasin Wildlife Mitigation Priorities

Habitat Type--Target Species	Priority
Riparian/Riverine	High
• Bald Eagle (breeding)	
• Bald Eagle (wintering)	
• River Otter	
• Black-capped Chickadee	
• Peregrine Falcon	
• Ruffed Grouse	
Wetlands	High
• Mallard	
Native Grasslands and Shrubs	Medium
• Mule Deer/Elk	
• White-tailed Deer	
• Sharp-tailed Grouse	
Coniferous Forest	Medium
• Elk	
Old Growth Forest	Medium
• Pileated Woodpecker	
Lowland Forest	Low
• White-tailed deer	

11.3 IMPLEMENT WILDLIFE MEASURES

11.3A Identify Measures Based on Losses

Bonneville and Wildlife Managers

- 11.3A.1 Use the loss estimates in Table 11-4 for identifying wildlife measures and developing short-term and long-term wildlife mitigation agreements. These losses represent the unannualized losses attributable to the construction of the federal hydropower system.

11.3B Wildlife Plan

Bonneville

- 11.3B.1 In consultation with the wildlife managers, Corps of Engineers, Bureau of Reclamation, state and federal land management agencies, the Council and other interested parties, finalize the Draft Wildlife Plan as described in Appendix G of this program by March 1, 1996. Upon approval by the Council fund implementation of the final Wildlife Plan.

11.3C Credit for New Actions

Wildlife Managers and Bonneville

- 11.3C.1 Because there are inconsistencies throughout the basin in how to determine the amount of credit given for acquisitions of habitat involving the protection of existing habitat, develop a consistent, systemwide method for crediting new wildlife mitigation

actions for the losses described in Table 11-4, while reflecting the following principles:

- The Council endorses the use of habitat units as the preferred unit of measurement for mitigation accounting unless parties to an agreement develop another method that, in the Council's opinion, adequately takes into account both habitat quantity and quality adequate to mitigate for the identified losses.
- The hydropower system must protect, mitigate and enhance wildlife to the extent affected by Columbia River Basin hydropower facilities. This obligation will be discharged when these effects are fully addressed, i.e., when mitigation actually offsets the loss caused by a hydropower facility, and when the operator provides adequate operation and maintenance funding to sustain the mitigation while the hydroelectric project is in place. Mitigation agreements may predict a certain level of mitigation, as long as provision is made for operation and maintenance funding and for monitoring and evaluation to determine if the predicted benefits were realized.
- It is clear that Bonneville should receive some credit for protection of existing habitat. That credit can be determined through the use of the annualization process contained in the Habitat Evaluation Procedure or through a negotiated settlement such as the Lower Snake Compensation Plan, in which the Corps has agreed to credit acquisitions for habitat

protection at half of their existing value.

- 11.3C.2 The Council recognizes some fish habitat projects provide benefits to wildlife as well as fish. Because of this, the Council calls upon Bonneville and the wildlife managers to develop a method for crediting wildlife benefits from fish projects. The development of such a method for crediting should not prevent fish habitat projects that benefit wildlife from going forward.

11.3D Short-Term Agreements

Bonneville and Wildlife Managers

- 11.3D.1 To ensure that wildlife mitigation proceeds expeditiously, within 90 days following the adoption of this program consummate interim five-year agreements, similar to the interim Washington Wildlife Mitigation agreement, with the states of Idaho and Oregon and appropriate Indian tribes

Interested Parties

- 11.3D.2 If the parties are unable for any reason to reach agreement within this time frame, then by February 15, 1994, submit to the Council a list of wildlife mitigation projects for implementation. Each October 1, thereafter, submit to the Council a list of wildlife mitigation projects for implementation.

Council

- 11.3D.3 Select and approve those projects to be funded for a given fiscal year.

Bonneville

- 11.3D.4 Upon Council approval, fund the projects approved by the Council.
- 11.3D.5 Continue to fund ongoing wildlife mitigation projects and incorporate them into the interim agreements.
- 11.3D.6 Fund the purchase of 100 acres adjacent to the existing Pend Oreille Wetlands Wildlife Mitigation project to protect and enhance an additional 100 acres of riparian forest and adjacent flood plain to partially mitigate for lost habitat units caused by the inundation and water level fluctuations due to the construction of Albeni Falls Dam on the Pend Oreille River. Funding will be provided to purchase land and fund operation and maintenance, and evaluation and monitoring of the project.
- 11.3D.7 Fund advance design activities and implement Black Canyon Reservoir wildlife mitigation, with the highest priority area in the Bruneau River Valley.
- 11.3D.8 In consultation with the State of Idaho, the Shoshone-Bannock Tribes, the Council and other interested parties, initiate implementation planning for the remainder of wildlife mitigation projects at the Palisades project. The Idaho Department of Fish and Game has completed planning for mitigation projects focused on bald eagles, the species of priority within the Palisades mitigation plan. The Tribes' efforts are intended to supplement the ongoing efforts of the agencies.

11.3E Long-Term Agreements

**Bonneville, Corps of Engineers,
Bureau of Reclamation and
Wildlife Managers**

11.3E.1 Within three years following the adoption of this program, develop long-term agreements for all wildlife mitigation. The following elements should be considered and addressed in the development of long-term agreements:

- Clear objectives (e.g., number of habitat units, acres and/or habitat types, sample projects with list of indicator species);
- Demonstration of how the agreement is expected to meet, exceed or fall short of wildlife loss assessments;
- Demonstration that the level of funding provided has substantial likelihood of achieving and sustaining stated wildlife mitigation objectives;
- Demonstration of consistency with the Council's wildlife rule policies and standards;
- Incentives to ensure effective implementation of the agreement with periodic monitoring and evaluation (including an audit at least every other year) to ensure progress and document successes and failures;
- Demonstration that the agreements do not impose financial liabilities on states or tribes for operation and maintenance or for third party claims for additional mitigation. State/tribal liability should be limited to good-faith performance of the mitigation agreement and should not include the risk of financial or biological uncertainty;

- Criteria for re-evaluation or reopening to consider whether mitigation actually has been achieved; and
- Provisions for public involvement during implementation (e.g., advisory council, hearings, etc.).

Council

- 11.3E.2 Before any agreement is signed, the Council will review the agreement in an open, public process, and determine whether it is consistent with this program.

11.3F Complete and Implement Snake River Compensation Program

The Corps of Engineers is in the final stages of implementing mitigation plans for the Lower Snake River Fish and Wildlife Compensation Plan. The Compensation Plan was authorized by Congress in 1976. The Corps has acquired all of the acreage called for in the plan. Final habitat developments on acquired lands will be completed by September 1996. The Council believes that when complete, the wildlife portion of the Compensation Plan developed by the Corps will meet acreage/funding obligations mandated by Congress. However, the Corps has not fully mitigated the habitat unit losses identified for the Lower Snake River hydroelectric projects. Accordingly, the Council has included the unmitigated wildlife losses associated with the Lower Snake River Projects in Table 11-4.

Corps of Engineers

- 11.3F.1 The Corps will complete wildlife mitigation as authorized under the Lower Snake River Fish and Wildlife Compensation Plan. Upon completion of all activities in 1996, the Corps will submit a report to the Council documenting the work completed and the mitigation credited in terms of habitat units.

Bonneville

- 11.3F.2 Within 90 days following adoption of this program, report to the Council all costs reimbursed to the U.S. Treasury by Bonneville associated with the wildlife mitigation portion of the Lower Snake River Fish and Wildlife Compensation Plan.

- 11.3F.3 Fund implementation of the hydropower share of unaddressed mitigation according to Section 11.3D of the program. Highest priority should be given to unaddressed losses sustained by the Nez Perce Tribe and Yakama Indian Nation.

11.4 MONITOR AND EVALUATE WILDLIFE EFFORTS AT FEDERAL DAMS

The Council is interested in ensuring that mitigation actually occurs on the ground and accordingly is providing for monitoring to determine projected benefits to wildlife that result from the program.

11.4A Biennial Monitoring Report and Scientific Review

Bonneville

- 11.4A.1 Fund the coordinated preparation of a biennial monitoring report. The report should compile information on wildlife implementation, habitat units gained, and the status of wildlife populations. The report should reflect broad technical review and input, including the Council. The final report should be submitted to the Council by June 15, every other year.

11.4A.2 Fund an independent scientific review group to evaluate the progress and success of wildlife mitigation efforts.

11.5 MONITOR AND EVALUATE WILDLIFE EFFORTS AT NON-FEDERAL PROJECTS

Non-federal hydroelectric projects are licensed by the Federal Energy Regulatory Commission. The Electric Consumers Protection Act of 1986 (ECPA) mandates that the Federal Energy Regulatory Commission give equal consideration to the protection, mitigation of damage to, and enhancement of wildlife in licensing and relicensing decisions.

11.5A Mitigation Considerations in Dam Licensing Decisions

Federal Energy Regulatory Commission

11.5A.1 In developing license conditions, take into account to the fullest extent practicable the policies established in this section, and the measures taken by Bonneville and others to implement this section, and Section 12.1A.2 of this program. In particular, it is important to take into account the mitigation projects at federal projects undertaken pursuant to this section, to ensure that license conditions are consistent with and complement these wildlife mitigation projects and contribute fully and proportionately to regional wildlife mitigation goals.

Council

11.5A.2 The Council will monitor the Federal Energy Regulatory Commission licensing and relicensing proceedings and comment or intervene where appropriate.

<i>Table 11-4 Estimated Losses Due to Hydropower Construction (losses are preceded by a “-”, gains by a “+”</i>	
Species	Total Habitat Units
Albeni Falls	
• Mallard Duck	-5,985
• Canada Goose	-4,699
• Redhead Duck	-3,379
• Breeding Bald Eagle	-4,508
• Wintering Bald Eagle	-4,365
• Black-Capped Chickadee	-2,286
• White-tailed Deer	-1,680
• Muskrat	-1,756
• Yellow Warbler	+171
Lower Snake Projects	
• Downy Woodpecker	-364.9
• Song Sparrow	-287.6
• Yellow Warbler	-927.0

• California Quail	-20,508.0
• Ring-necked Pheasant	-2,646.8
• Canada Goose	-2,039.8
Anderson Ranch	
• Mallard	-1,048
• Mink	-1,732
• Yellow Warbler	-361
• Black Capped Chickadee	-890
• Ruffed Grouse	-919
• Blue Grouse	-1,980
• Mule Deer	-2,689
• Peregrine Falcon	-1,222 acres*
* Acres of riparian habitat lost. Does not require purchase of any lands.	
Black Canyon	
• Mallard	-270
• Mink	-652
• Canada Goose	-214
• Ring-necked Pheasant	-260
• Sharp-tailed Grouse	-532
• Mule Deer	-242
• Yellow Warbler	+8
• Black-capped Chickadee	+68

<i>Table 11-4</i>	
<i>Estimated Losses Due to Hydropower Construction</i>	
<i>(losses are preceded by a “-”, gains by a “+”</i>	
Deadwood	
• Mule Deer	-2080
• Mink	-987
• Spruce Grouse	-1411
• Yellow Warbler	-309
• Yellow-rumped Warbler	-2626

Table 11-4 (cont.)
Estimated Losses Due to Hydropower Construction
(losses are preceded by a “-”, gains by a “+”

Species	Total Habitat Units
Palisades	
• Bald Eagle	-5,941 breeding
	-18,565 wintering
• Yellow Warbler/	-718 scrub-shrub
• Black Capped Chickadee	-1,358 forested
• Elk/Mule Deer	-2,454
• Waterfowl and Aquatic Furbearers	-5,703
• Ruffed Grouse	-2,331
• Peregrine Falcon*	-1,677 acres of forested wetland
	-832 acres of scrub-shrub wetland
	+68 acres of emergent wetland
* Acres of riparian habitat lost. Does not require purchase of any lands.	
Willamette Basin Projects	
• Black-tailed Deer	-17,254
• Roosevelt Elk	-15,295
• Black Bear	-4,814
• Cougar	-3,853
• Beaver	-4,477
• River Otter	-2,408
• Mink	-2,418
• Red Fox	-2,590
• Ruffed Grouse	-11,145
• California Quail	-2,986
• Ring-necked Pheasant	-1,986
• Band-tailed Pigeon	-3,487
• Western Gray Squirrel	-1,354
• Harlequin Duck	-551
• Wood Duck	-1,947
• Spotted Owl	-5,711
• Pileated Woodpecker	-8,690
• American Dipper	-954
• Yellow Warbler	-2,355
• Common Merganser	+1,042
• Greater Scaup	+820
• Waterfowl	+423
• Bald Eagle	+5,693
• Osprey	+6,159

Table 11-4 (cont.)
Estimated Losses Due to Hydropower Construction
(losses are preceded by a “-”, gains by a “+”

Species	Total Habitat Units
Grand Coulee	
• Sage Grouse	-2,746
• Sharp-tailed Grouse	-32,723
• Ruffed Grouse	-16,502
• Mourning Dove	-9,316
• Mule Deer	-27,133
• White-tailed Deer	-21,362
• Riparian Forest	-1,632
• Riparian Shrub	-27
• Canada Goose Nest Sites	-74
McNary	
• Mallard (wintering)	+13,744
• Mallard (nesting)	-6,959
• Western Meadowlark	-3,469
• Canada Goose	-3,484
• Spotted Sandpiper	-1,363
• Yellow Warbler	-329
• Downy Woodpecker	-377
• Mink	-1,250
• California Quail	-6,314
John Day	
• Lesser Scaup	+14,398
• Great Blue Heron	-3,186
• Canada Goose	-8,010
• Spotted Sandpiper	-3,186
• Yellow Warbler	-1,085
• Black-capped Chickadee	-869
• Western Meadowlark	-5,059
• California Quail	-6,324
• Mallard	-7,399
• Mink	-1,437

Table 11-4 (cont.)
Estimated Losses Due to Hydropower Construction
(losses are preceded by a “-”, gains by a “+”

Species	Total Habitat Units
The Dalles	
• Lesser Scaup	+2,068
• Great Blue Heron	-427
• Canada Goose	-439
• Spotted Sandpiper	-534
• Yellow Warbler	-170
• Black-capped Chickadee	-183
• Western Meadowlark	-247
• Mink	-330
Bonneville	
• Lesser Scaup	+2,671
• Great Blue Heron	-4,300
• Canada Goose	-2,443
• Spotted Sandpiper	-2,767
• Yellow Warbler	-163
• Black-capped Chickadee	-1,022
• Mink	-1,622
Dworshak	
• Canada Goose-(breeding)	-16
• Black-capped Chickadee	-91
• River Otter	-4,312
• Pileated Woodpecker	-3,524
• Elk	-11,603
• White-tailed Deer	-8,906
• Canada Goose (wintering)	+323
• Bald Eagle	+2,678
• Osprey	+1,674
• Yellow Warbler	+119

Table 11-4 (cont.)
Estimated Losses Due to Hydropower Construction
(losses are preceded by a “-”, gains by a “+”

Species	Total Habitat Units
Minidoka	
• Mallard	+174
• Redhead	+4,475
• Western Grebe	+273
• Marsh Wren	+207
• Yellow Warbler	-342
• River Otter	-2,993
• Mule Deer	-3,413
• Sage Grouse	-3,755
Chief Joseph	
• Lesser Scaup	+1,440
• Sharp-tailed Grouse	-2,290
• Mule Deer	-1,992
• Spotted Sandpiper	-1,255
• Sage Grouse	-1,179
• Mink	-920
• Bobcat	-401
• Lewis' Woodpecker	-286
• Ring-necked Pheasant	-239
• Canada Goose	-213
• Yellow Warbler	-58

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Section 12

FUTURE HYDROELECTRIC DEVELOPMENT

Much of this program has focused on mitigating damage done to Columbia River Basin fish and wildlife by hydropower development and operations in the past. But the future is equally important. The Corps of Engineers and the Bureau of Reclamation continue to study the need for additional federal hydroelectric projects and to plan for new development in the basin. The Federal Energy Regulatory Commission has many permits and applications pending for hydroelectric development in Idaho, Oregon, Montana and Washington. Many of those applications and permits are for projects throughout the Columbia River Basin. Dozens of small or medium-sized hydroelectric projects are proposed for tributary drainage basins that contain important anadromous fish habitat. However, most new hydroelectric development will be accomplished by private or non-federal public entities licensed by the Federal Energy Regulatory Commission.

Many of the proposals are for hydroelectric projects that would produce less than 5 megawatts of electricity. Although individual small projects may have no significant adverse effects on the fish and wildlife resources of the basin, the cumulative effects of such development throughout a river basin could be quite harmful. These cumulative effects need to be taken into account fully.

The Council estimates that 4,600 stream miles of Columbia River Basin salmon and steelhead spawning and rearing habitat have been lost to development, not including losses of migration routes and of resident fish and wildlife habitat. Minimizing further habitat loss is especially important in view of the Council's goal of doubling salmon and steelhead runs in the Columbia River Basin consistent with system policies (see Sections 2 and 4). Development in critical fish and wildlife areas leads to divisive and expensive conflicts that

the Council believes can be avoided through resource planning.

The Council finds that future hydroelectric developers in the basin should be required to mitigate harm to fish and wildlife and has adopted program measures calling for such mitigation. New hydroelectric development has the potential to cause further damage to the basin's fish and wildlife resources as well as to negate ongoing Council efforts to remedy damage caused by the existing hydropower system. Federal agencies also should assess and mitigate the cumulative effects on fish and wildlife of multiple hydroelectric projects.

The Council also intends to continue to review applications for Federal Energy Regulatory Commission permits and licenses and for Corps of Engineers and Bureau of Reclamation proposals for hydroelectric development. The purpose of this review is to identify program measures related to the proposed development to ensure that any new development in the basin is consistent with this fish and wildlife program and the Council's Northwest Power Plan. The Council's reviews would complement and recognize, not supplant, the role of the fish and wildlife agencies and tribes in reviewing proposals for hydroelectric projects.

12.1 FUTURE HYDROELECTRIC DEVELOPMENT

12.1A Conditions

**Federal Energy Regulatory
Commission, Corps of Engineers,
Bureau of Reclamation and
Bonneville**

12.1A.1 Do not license, exempt from license, relicense, propose, recommend, agree to acquire or wheel power from, grant billing credits for, or otherwise support any hydroelectric development in the Columbia River Basin without specifically providing for these development conditions:

- Consultation with the fish managers and the Council throughout study, design, construction and operation of the project;
- Specific plans for flows and fish facilities prior to construction;
- The best available means for aiding downstream and upstream passage of anadromous and resident fish;
- Flows and reservoir levels of sufficient quantity and quality to protect spawning, incubation, rearing and migration;
- Full compensation for unavoidable fish losses or fish habitat losses through habitat restoration or replacement, appropriate propagation, or similar measures consistent with the provisions of this program;
- Assurance that the project will not inundate the usual and accustomed, traditional or contemporary fishing places of any tribe without tribal approval;
- Assurance that the project will not degrade fish habitat or reduce numbers of fish in such a way that the exercise of treaty or executive order tribal rights will be diminished;
- Assurance that all fish protection measures are fully operational at the time the project begins operation;
- The collection of data needed to monitor and evaluate the results of the fish protection efforts; and
- Assurance that the project will not degrade water quality beyond the point necessary to sustain sensitive

fish species (as designated in consultation with the fish managers).

12.1A.2 Do not license, relicense, exempt from license, propose, recommend, agree to acquire or wheel power from, grant billing credits for, or otherwise support any hydroelectric development in the Columbia River Basin without specifically providing for these development conditions:

- Consultation with wildlife managers and the Council throughout study, design, construction and operation of the project;
- Avoiding inundation of wildlife habitat, insofar as practical;
- Timing construction activities, insofar as practical, to reduce adverse effects on nesting and wintering grounds;
- Locating temporary access roads in areas to be inundated;
- Constructing subimpoundments and using all suitable excavated material to create islands, if appropriate, before the reservoir is filled;
- Avoiding all unnecessary or premature clearing of land before filling the reservoir;
- Providing artificial nest structures when appropriate;
- Avoiding construction, insofar as practical, within 250 meters of active raptor nests;
- Avoiding critical riparian habitat (as designated in consultation with the wildlife managers) when clearing, riprapping, dredging, disposing of spoils and wastes, constructing diversions, and relocating structures and facilities;
- Replacing riparian vegetation if natural revegetation is inadequate;
- Creating subimpoundments by diking backwater slough areas, creating islands and nesting areas;

- Regulating water levels to reduce adverse effects on wildlife during critical wildlife periods (as defined in consultation with the fish and wildlife managers);
- Improving the wildlife capacity of undisturbed portions of new project areas (through such activities as managing vegetation, reducing disturbance, and supplying food, cover and water) as compensation for otherwise unmitigated harm to wildlife and wildlife habitat in other parts of the project area;
- Acquiring land or management rights, such as conservation easements, where necessary to compensate for lost wildlife habitat at the same time other project land is acquired and including the associated costs in project cost estimates;
- Funding operation and management of the acquired wildlife land for the life of the project;
- Granting management easement rights on the acquired wildlife lands to appropriate management entities;
- Collecting data needed to monitor and evaluate the results of the wildlife protection efforts;
- Assurance that the project will not inundate the usual and accustomed, traditional or contemporary hunting places of any tribe without tribal approval; and
- Assurance that the project will not degrade wildlife habitat or reduce numbers of wildlife in such a way that the exercise of treaty or executive order tribal rights will be diminished.

12.1A.3 Ensure that all licenses for hydroelectric projects or documents that propose, recommend or otherwise support hydroelectric development explain in detail how the provisions of Sections 12.1A.1 and 12.1A.2 will be

accomplished or the reasons why the provisions cannot be incorporated into the project.

12.2 PROTECTED AREAS

From the inception of this program, the Council has supported the concept of protecting some streams and wildlife habitats from hydroelectric development, where the Council believes such development would have major negative impacts that could not be reversed. Beginning in 1983, the Council directed extensive studies of existing habitat and has analyzed alternative means of protection. In 1988, the Council concluded that: 1) the studies had identified fish and wildlife resources of critical importance to the region; 2) mitigation techniques cannot assure that all adverse impacts of hydroelectric development on these fish and wildlife populations will be mitigated; 3) even small hydroelectric projects may have unacceptable individual and cumulative impacts on these resources; and 4) protecting these resources and habitats from hydroelectric development is consistent with an adequate, efficient, economical, and reliable power supply. The Council, relying on these studies, designated certain river reaches in the basin as “protected areas,” where the Council believes hydroelectric development would have unacceptable risks of loss to fish and wildlife species of concern, their productive capacity or their habitat.

River reaches to be protected are those reaches or portions of reaches listed on the “Protected Areas List” adopted by the Council on August 10, 1988, and subsequently. For each river reach listed on the Protected Areas List, the fish and wildlife to be protected are those on the list. The Council will supply a copy of the Protected Areas List to any party free of charge.

12.2A Protect Areas From New Hydropower Development

The following are not affected by protected areas:

- Any hydroelectric facility or its existing impoundment that as of August 10, 1988, had been licensed or exempted from licensing by the Federal Energy Regulatory Commission;
 - The relicensing of such hydroelectric facility or its existing impoundment;
 - Any modification of any existing hydroelectric facility or its existing impoundment; and
 - Any addition of hydroelectric generation facilities to a non-hydroelectric dam or diversion structure.
- **Transition projects:** The Council recognizes that there exist, as of August 10, 1988, applications for hydroelectric projects that are in various stages of completion before the Federal Energy Regulatory Commission. In many cases the applicants have made substantial investments and have completed, or nearly completed, agreements with all interested parties, including state fish and wildlife agencies. The Council recognizes that the Federal Energy Regulatory Commission may be obligated to complete its processes on these applications, but expects where possible that this measure will be taken into account to the fullest extent practicable.

The Council recognizes that there may exist preliminary permits or applications for licenses or exemptions for hydroelectric projects at sites that were not previously within protected areas, but which may be included within protected areas as a result of amendments approved by the Council. An important purpose of protected areas is to encourage developers to site projects outside protected areas. The Council therefore exempts from the effect of an amendment that designates a previously unprotected area as protected, any project for which the developer had obtained a preliminary permit or filed an application for license or exemption prior to the date on which the Council entered rulemaking on the amendment. However, it is the Council's intention that the Federal Energy Regulatory Commission give full consideration to the protection of fish and wildlife resources located at these project sites and provide

suitable protection and mitigation for such resources in the event that a license or exemption is approved.

- **Effect on water rights and riparian areas:** This measure should not be interpreted to authorize the appropriation of water by any entity or individual, affect water rights or jurisdiction over water, or alter or establish any water or water-related right. The Council does not intend this measure to alter or affect any state or federal water quality classification or standards, or alter any management plan developed pursuant to the national Forest Management Act, 16 U.S.C. 1601, et seq., or the Federal Land Policy Management Act, 43 U.S.C. 1701, et seq., except to the extent planning decisions are directly related to hydropower licensing and development. Nor should this measure be interpreted to alter, amend, repeal, interpret, modify, or conflict with any interstate compact made by the states. If this measure is found by a court or other competent authority to conflict with any other interstate compact, this measure will terminate with respect to the area involved, without further action of the Council.

This measure applies to river reaches, or portions of river reaches, and to river banks or surrounding areas only where such areas would be directly affected by a proposed hydroelectric project. In adopting this measure, the Council has not attempted to balance all the factors that may be relevant to land management determinations.

Bonneville Power Administration

- 12.2A.1 Do not acquire power from hydroelectric projects located in protected areas. The Council believes that the Long-Term Intertie Access Policy's reliance on protected areas is consistent with the Council's power plan and fish and wildlife program as they apply to fish and wildlife in the Columbia River Basin. The Council continues to recommend

that Bonneville adopt a similar policy with respect to protected areas outside the Columbia River Basin.

Federal Energy Regulatory Commission

- 12.2A.2 Under the Northwest Power Act, the Federal Energy Regulatory Commission, and all other federal agencies responsible for managing, operating, or regulating federal or non-federal hydroelectric facilities located on the Columbia River or its tributaries are required to take protected area designations into account to the fullest extent practicable at all relevant stages of decisionmaking processes. The Council recognizes that the Federal Energy Regulatory Commission makes licensing and exemption decisions for nonfederal projects, and does not expect that the Commission will abandon its normal processes with regard to projects located in protected areas. Rather, consistent with Section 4(h)(11) of the Northwest Power Act, the Council expects that the Federal Energy Regulatory Commission will take the Council's judgment into account, and implement that judgment in licensing and exemption decisions unless the Federal Energy Regulatory Commission's legal responsibilities require otherwise.

12.3 ADDITIONAL PROTECTIONS AND CONSISTENCY OF HYDROPOWER DEVELOPMENT

12.3A Cumulative Effects

Federal Project Operators and Regulators

- 12.3A.1 Review simultaneously all applications or proposals for hydroelectric development in a single river drainage, through consolidated hearings, environmental

impact statements or assessments, or other appropriate methods. This review shall assess cumulative environmental effects of existing and proposed hydroelectric development on fish and wildlife.

12.3B Ensure Consistency With This Program

Federal Energy Regulatory Commission

- 12.3B.1 Require all applicants for licenses (including license renewals, amendments and exemptions) and preliminary permits in the Columbia River Basin to demonstrate in their applications how the proposed project would take this program into account to the fullest extent practicable.
- 12.3B.2 Provide the Council with copies of all applications for licenses (including license renewals, amendments and exemptions) and preliminary permits in the Columbia River Basin so that the Council can comment in a timely manner on the consistency of the proposed project with this fish and wildlife program. This provision is not intended to supplant review of such applications by the fish and wildlife agencies and tribes.

Federal Land Managers and Federal and State Fish and Wildlife Agencies

- 12.3B.3 Incorporate pertinent elements of the fish and wildlife program in the terms and conditions they apply to projects exempted from licensing under Federal Energy Regulatory Commission exemption procedures. The Council also requests federal land managers to incorporate this program into their permit

procedures related to hydroelectric development on lands they manage.

Corps of Engineers, Bureau of Reclamation, and any Other Federal Agency Studying or Proposing Hydroelectric Development in the Columbia River Basin

- 12.3B.4 Provide opportunity for Council review and comment.

W:\95AMEND\DRFTRULE\S12-CLN.925

Section 16

Findings on the Recommendations for Amendments to the Resident Fish and Wildlife Portions of the 1994 Fish and Wildlife Program and Response to Comments September 13, 1995

In late 1994 the Council requested that fish and wildlife agencies, Indian tribes and others submit recommendations for amendments to the resident fish and wildlife portions of the Council's Columbia River Basin Fish and Wildlife Program. The Council received approximately 80 recommendations. In this section of the program, the Council provides written findings explaining its disposition of these recommendations. When the Council rejected a recommendation, or any part of one, the Council has explained how the rejection comports with Section 4(h)(7) of the Northwest Power Act. These findings also summarize and respond to comments received by the Council relating to the recommendations and the Council's rulemaking process, and they satisfy the federal Administrative Procedure Act's requirement of a statement of the "basis and purpose" of the amendments.

These amendments are part of a larger process begun by the Council in early 1994 to consider amendments to the entire fish and wildlife program. The Council split the amendment process into two parts -- first, amendments related to the anadromous fish portions of the program, and second, these amendments related to the resident fish and wildlife portions of the programs. The Council called for and received recommendations for amendments to the anadromous fish portions of the program by mid-August 1994, and in December 1994 the Council adopted program amendments and findings related to anadromous fish issues. The Council accepted recommendations for amending the resident fish and wildlife portions of the program until January 27, 1995. The two processes have not been completely divided. Overlapping issues resulted in the Council adopting certain amendments to the resident fish section of the program (Section 10) in December as part of the anadromous fish rulemaking process, partly in an effort to ensure that anadromous fish measures do not adversely affect resident fish communities. Recommendations raising similar issues are part of this resident fish and wildlife rulemaking process, resulting in amendments to the anadromous fish portions of the program (e.g., Section 5) and to portions of the program relevant to anadromous fish and to resident fish and wildlife (e.g., Sections 1-3).

1 **General finding for Section 4(h)(5) of the Power Act -- assuring an adequate, efficient,**
2 **economical and reliable power supply**
3
4

5 The Council's fish and wildlife program must consist of measures to "protect, mitigate, and
6 enhance fish and wildlife affected by the development, operation, and management of [hydropower]
7 facilities while assuring the Pacific Northwest an adequate, efficient, economical, and reliable power
8 supply." Northwest Power Act, Section 4(h)(5). The measures in the program and the findings
9 below address the first part of this requirement. These findings briefly address the second part of
10 the requirement.
11

12 As part of the Council's December 1994 anadromous fish rulemaking, the Council analyzed
13 the impact of the measures in the program on the power supply. See Section 1.8 of the program,
14 the power system, cost and rate impact analysis attached to the program as Part I of Appendix B,
15 and the broader analysis of the issue of assuring an adequate, efficient, economical and reliable
16 power supply attached to the program as Appendix C. The Council concluded that the
17 anadromous fish recovery measures and other measures adopted in December (such as the
18 integrated rule curves for Hungry Horse and Libby dams), can be implemented while assuring the
19 region an adequate, efficient economical and reliable power supply. The Council also recognized,
20 however, that "[i]t is possible for fish recovery measures and other costs to cause Bonneville's
21 power supply to be perceived as no longer economical in relation to competing supplies," leading to
22 a loss of customers and thus eroding Bonneville's revenue base. This could result in Bonneville
23 being unable to meet all of its obligations under the Power Act. To quote further from the Council's
24 finding: "The Council's analysis suggests that Bonneville probably can absorb some additional fish
25 recovery costs and still be able to carry out the Act's purposes. However, this conclusion is quite
26 uncertain, particularly in the short term, and the Council believes that additional means should be
27 explored to pay those costs." The Council suggested a number of methods for spreading the costs
28 of implementing the program so as to lessen the impact on Bonneville. The Council also concluded
29 that "while the Council has done considerable analysis in connection with these findings, it is
30 important to recognize that the adequacy, efficiency, affordability, and reliability of the region's
31 power supply, and the impact of these measures on Bonneville's ability to carry out the purposes of
32 the Act, can be more fully gauged as the Council revises its regional power plan. The fish and
33 wildlife program is part of the power plan, and the mutual impacts of fish and power measures are
34 intended to be examined together . . . The potential impacts of these and other fish and wildlife
35 measures deserve further consideration in the context of a full revision of the power plan."
36

37 The Council finds that the resident fish and wildlife program amendments the Council adopts
38 in this process do not alter these conclusions. The new resident fish and wildlife measures affect the
39 power system in two basic ways: First, a power and cost analysis by the Council staff estimates
40 that implementing the recommended operating criteria for Grand Coulee Dam (Section 10.3E.3) will
41 reduce the firm energy generating capability of the hydropower system by as much as 100 average
42 megawatts and is likely to cost the region less than \$20 million per year. Second, the revisions to
43 the Lake Pend Oreille operations (Section 10.6E), because they call for the reservoir levels to be

1 held two feet lower in the winter than in the 1994 program, should result in a savings of about \$3
2 million per year from the revised estimate of a \$6 million average annual cost of the operations
3 specified in the 1994 program. Together these measures will impose new burdens on the power
4 system in some months and relieve burdens in other months. However, these changes in the
5 program's impacts on the power supply are relatively small. Thus the conclusions reached in
6 Section 1.8 and Appendix C concerning the impact of the Council's program on the region's power
7 supply and the underlying explanations continue to apply. The December 1994 findings concerning
8 Bonneville's financial situation and ability to meet its obligations under the Act also remain valid.
9 The Council continues to view these findings on the impact of the program on the power supply and
10 on Bonneville's status as provisional pending further consideration in the Council's revision of the
11 power plan.
12
13
14
15
16

1 **SECTION 1: INTRODUCTION**

2
3
4 **Program Section(s): 1.3.C (regional funding and staffing/power system)**

5 Source: Columbia River Alliance

6 Recommendation No.: 95-2/0088

7
8 **Recommendation:** The Columbia River Alliance recommended two measures that
9 concern the general issue of cost-effectiveness review for the whole program. First, the Alliance
10 recommended deleting existing Section 1.3.C, which discusses cost allocations and cost-
11 effectiveness commitments, and inserting the following language:

12
13 "In order to assess measures that will have the greatest level of biological effectiveness
14 relative to the regional costs incurred, the Council shall review and acknowledge all formal cost-
15 effectiveness analyses related to the Program. This review shall include analyses prepared by the
16 Bonneville Power Administration and the Corps, as well as analyses conducted by the tribes and
17 state agencies, industry, and university researchers.

18
19 "The Council shall acknowledge the cost-effectiveness reviews by formally stating within
20 Section 2 of the Program how this information has been used to: (1) assess Council actions
21 recommended within the program; and (2) prioritize measures for implementation.

22
23 "Cost-effectiveness analyses will aid the Council in adopting a comprehensive ecosystem
24 perspective toward the Fish and Wildlife Program. Because the cost-effectiveness analyses identify
25 and prioritize measures, limiting the extent of measures to actions that significantly enhance biological
26 benefits, the potential for counterproductive measures between anadromous fish and resident fish
27 and wildlife resources is reduced."

28
29 Second, the Alliance recommended adding a new Section 1.8A, as follows:

30
31 "To ensure that the Fish and Wildlife Program does not jeopardize an economical and
32 reliable power system, the Council shall review cost-effectiveness analyses related to the Program.
33 This review directly guides the Council's decision-making regarding key measures and elements of
34 the Program, and it serves as a key basis for measure prioritization. This review process is
35 described in Section 2 and within Appendix () of the Program."

36
37 The recommendation assumed that Section 2 of the program would be amended both to
38 describe in detail the nature of this cost-effectiveness review process and the results of any
39 particular review process. The Alliance did not recommend any particular changes to Section 2.

40
41 **Draft:** The draft rule included, as an addition to the existing language of Section 1.3C (and
42 not as a substitute), the first paragraph of the recommended language for Section 1.3C, with the

1 minor modification that the Council would review those cost-effectiveness analyses that have been
2 submitted to the Council for review. Otherwise, the recommendation was not included in the draft.
3

4 **Comment:** The Confederated Salish and Kootenai Tribes commented that in dealing with
5 mitigation activities throughout the basin, what is cost effective in one area is not in another, so that
6 cost-effectiveness must be looked at on a project-specific basis. (186)
7

8 The Eastern Oregon Irrigators Association and the Columbia-Snake River Irrigators
9 Association (Darryl Olsen commenting on their behalf) supported the proposed amendment to
10 Section 1.3C. Mr. Olsen noted in his oral testimony that the purpose of the proposed language was
11 to have the Council consider and review cost effectiveness analyses submitted to the Council, not to
12 impose a responsibility on the Council to seek out or contract for such reviews. The Associations
13 also supported what was the second paragraph in the recommended addition to Section 1.3C, that
14 the Council acknowledge cost-effectiveness reviews by formally stating within Section 2 of the
15 program how the information is used to (1) assess Council actions recommended within the
16 program and (2) prioritize measures for implementation. The Associations observed that cost-
17 effectiveness review and prioritization of salmon recovery measures in general should limit actions to
18 those that significantly improve biological benefits and thus reduce the potential for counter-
19 productive measures between anadromous fish and resident fish and wildlife. And they stated that
20 in fact the most cost-effective salmon measures -- juvenile transportation, surface collectors, harvest
21 reductions, predator controls, minor amounts of flow augmentation in low flow years -- are also the
22 measures that have the relatively lowest biological and economic risk and create few resident fish
23 and wildlife impacts. (240, 252)
24

25 Oregon Trout commented that the Council should delete the second sentence in the draft
26 amendment to Section 1.3C, beginning with "This review . . ." The sentence is redundant, as the
27 first sentence "captures the intent needed because it requires the Council to review all formal cost-
28 effectiveness analyses." (209)
29

30 The Flathead Basin Committee supported the amendment, commenting that an original
31 purpose of the Act was that cost effectiveness should be part of the Council's mandate as well as
32 biological effectiveness, and that if this is not stated explicitly in the program, it needs to be. (186)
33

34 The Western Montana Electric Generating and Transmission Cooperative commented that
35 the Council's commitment to cost effectiveness of all proposed and existing programs must be
36 significantly increased. The language proposed for Section 1.3C should be modified to extend
37 beyond a simple "review and acknowledge all formal cost effectiveness analysis" to require that any
38 amendment or proposal made to the Council include a cost-effectiveness analysis of the costs and
39 benefits. Failure to provide this information should result in Council rejection of the amendment.
40 And, once the Council has adopted a project or measure into the program, implementation
41 proposals should be put out to an open and public bidding process to assure the lowest possible
42 cost. (221)
43

1 Public Utility District No. 1 of Okanogan County stated that it agreed with the comments of
2 the Columbia River Alliance and the Western Montana Electric Generating and Transmission
3 Cooperative in this rulemaking. (222)

4
5 The Benton County PUD, Kennewick, Washington, “strongly supported” the proposed
6 amendment. (244)

7
8 **Findings:** The Council adopted one part of this recommendation -- the sentence stating
9 that the Council would review and acknowledge all cost-effectiveness analyses related to the
10 program. The Council modified this sentence to refer to those analyses “submitted to the Council”
11 to reflect the comments of the drafter of the recommendation (Darryl Olsen, for the Alliance) that
12 the intent was for the Council to review analyses submitted to the Council, not to impose on the
13 Council the burden to seek out analyses.

14
15 The Council did not accept the rest of the recommendation. Some of the recommended
16 language was superfluous, such as the sentence that described the possible sources of such
17 analyses, as the comment from Oregon Trout noted.

18
19 The Council also rejected language that specified how the Council would use cost-
20 effectiveness analyses. The Council is bound to follow the requirements of the Northwest Power
21 Act and the Administrative Procedures Act. Section 4(h)(6)(C) of the Northwest Power Act states
22 the particular form of cost-effectiveness review that the Council is to follow in developing and
23 implementing the fish and wildlife program -- when measures are equally effective in achieving the
24 same biological objective, choose the least-cost measure. And Section 4(h)(5) requires a form of
25 programmatic cost impact analysis, in that the Council is to develop the fish and wildlife program
26 while assuring an adequate, efficient, economical, and reliable power supply. Any other form of
27 cost-effectiveness review is not a criteria or procedural step in program development, under the
28 Act. On the other hand, the Power Act and the Administrative Procedures Act, require the Council
29 to consider, note and respond to comments received in the process of program amendment
30 rulemakings, including cost-effectiveness review. If this is the procedure the Alliance intended for
31 program development, it already exists by virtue of the Act. If not, it is not clear what procedure
32 the Alliance proposes, or how it squares with these legal requirements.

33
34 Within this context, the Council has stated in the program its commitment to cost-
35 effectiveness analysis, in both general and specific terms. This includes the language already in
36 Section 1.3C (cost effectiveness review an important part of the program, measuring success by
37 providing permanent salmon restoration at the lowest cost and avoiding short-term least-cost
38 calculations if inconsistent with long-term success in recovery), as well as the language added by the
39 Council to that section in this rulemaking. In addition the program contains Sections 1.3A
40 (principles governing costs), 2.2B (assess program measures for cost effectiveness and other
41 purposes), 3.2E (prioritization and cost-effectiveness), and 5.2A.4 and 5.2A.5 (cost-effectiveness
42 review and methodology for securing additional water supplies for salmon flows). Program
43 implementation must be consistent with Section 4(h) of the Act and with the program. Prioritization

1 decisions must be based on and guided by the priorities and principles stated in the program,
2 including the cost-effectiveness principles. The newly revised implementation planning process in
3 Section 3.1B notes that the Council will review both the development of prioritization criteria and
4 the application of that criteria to prioritize projects, in a public review process in which all interested
5 parties will have an opportunity to comment. The Council does not understand the Alliance's
6 recommendation to call for procedures significantly different than what the Act calls for and the
7 program already states, except to the extent that the Alliance recommendation would have the
8 Council explain formally, in the program, how the cost-effectiveness analyses of others was used to
9 prioritize projects. This would not be consistent with the Act. The Act specifies the function of the
10 program and how measures are to be adopted into it. Specific implementation decisions for
11 program measures are not part of the program amendment process.

12
13 In short, the rejected language is either superfluous, reflecting what is already in the
14 program, or would be less effective and accurate in following the procedural requirements of the
15 Act and the other principles and procedures in the program, and thus less effective than what has
16 been adopted in ensuring the protection, mitigation and enhancement of resident fish and wildlife, 16
17 U.S.C. §839b(h)(7)(C), and complementing the activities of the federal and state fish and wildlife
18 agencies and appropriate Indian tribes, 16 U.S.C. §839b(h)(6)(A), (7)(B).

19
20 The Alliance did not explain why it recommended deleting the language in existing Section
21 1.3C as well as adding the new language. The existing language is not inconsistent with the
22 recommended language nor, except in small part, does it even pertain to the same subject. The
23 Council thus rejected this part of the recommendation.

SECTION 2: SYSTEMWIDE GOAL AND FRAMEWORK

Program Section(s): 2.2F.1 (funding targets/funding levels)

Source: Colville Confederated Tribes

Recommendation No.: 95-2/0052

Source: Kalispel Tribe of Indians and Spokane Tribe of Indians

Recommendation No.: 95-2/0084

Recommendation: The Colville Confederated Tribes recommended amending Section 2.2F.1 to change funding targets to specified funding levels. The section would state that the Council "expects" Bonneville to allocate 15 percent of its fish and wildlife budget to resident fish and 15 percent to wildlife, "contingent upon enough approved Council projects to utilize the 15 percent budget level." The Council is to review "the 15 percent budget allocation" in 1996. The Tribes also deleted the sentence stating that the Council did not encourage selective or slowed implementation of anadromous fish measures.

The Kalispel Tribe and the Spokane Tribe jointly submitted a similar recommendation, adding a sentence to Section 2.2F.1 stating that beginning in October 1995 Bonneville will fund resident fish and wildlife measures at a level of 15 percent each. These Tribes did not recommend deletion of any language from the section.

Draft: The draft included with minor revisions the funding level language recommended by the Colville Confederated Tribes. The main revision was to state that the funding levels were to be "not less than" 15 percent for resident fish and 15 percent for wildlife, leaving open the possibility that funding levels could be higher. Note that the Upper Columbia United Tribes (of which the Kalispel Tribe and the Spokane Tribe are members) as a group added these mandatory budget levels to their revised Section 3 implementation planning process recommendation (Recommendation No. 95-2/0075) and to their Section 10 resident fish framework recommendation, No. 95-2/0076), as discussed below. The UCUT Tribes' Section 10 resident fish framework recommendation was different in one significant respect -- the funding level for the resident fish program was stated as 15 percent of the budget or \$15 million, whichever was greater. The consensus resident fish program framework submitted by the Columbia Basin Fish and Wildlife Authority (also discussed below) included this same budget language. The draft did not include this latter version, conforming all draft provisions to call for not less than 15 percent of total budget dollars to resident fish programs.

The draft did not delete the language in Section 2.2F.1 concerning implementation of anadromous fish measures, as recommended by the Colville Confederated Tribes but not included in the recommendation from the Spokane and Kalispel Tribes.

Comment: The UCUT Tribes and its member tribes commented that the Council should reinstate the fish managers' consensus language -- 15 percent or \$15 million -- as submitted in the

1 CBFWA framework. This formulation, according to the UCUT Tribes, represented the fish
2 managers' consensus view of the absolute minimum funding level needed to make meaningful
3 progress on the necessary resident fish projects. Reasons given for needing this funding level
4 include: First, resident fish stocks are in decline all over the basin, just like anadromous fish, yet \$15
5 million is a tiny amount compared to anadromous fish budget (program budget + repayments +
6 foregone revenues for fish flows) and is needed to spread over four states and 13 Indian
7 reservations. Second, with decline in salmon fishing, fishing pressure east of the Cascades has
8 increased, dramatically at Lake Roosevelt. It is important to restore and enhance these fish before
9 the fishing pressure further damages them. Third, a number of the species are potential candidates
10 for ESA listing, including bull trout and westslope cutthroat. Fourth, the funding levels
11 recommended by CBFWA are consistent with an ecosystem approach as required by Section
12 4(h)(1)(A) of the Act, and considerably more than \$15 million is actually necessary to implement all
13 resident fish projects in the program in a timely fashion to prevent further declines. The Coeur
14 d'Alene Tribe added that it could support language calling for 15 percent or not less than \$15
15 million for a three- to four-year period, to assure that un-implemented projects stand a good chance
16 of implementation, with a review of this funding allocation formula during the next amendment cycle.
17 (174, 178, 188, 194, 196)

18
19 The Colville Confederated Tribes also supported the CBFWA consensus language on
20 funding (15 percent or \$15 million), stating that the resident fish program has been operating on such
21 limited funding that there is a "bow wave" of projects in need of implementation that will require a
22 minimum of \$15 million annually if they are to be implemented by 2006. (174, 226)

23
24 The Confederated Salish and Kootenai Tribes and the Montana Department of Fish,
25 Wildlife and Parks both supported the budget allocation language in the draft amendments, but with
26 the understanding that resident fish substitution projects should be included within the overall
27 anadromous fish program and therefore in the anadromous fish budget, and not funded from the 15-
28 percent budget share allocated to resident fish. The Tribes also cautioned against the possibility of
29 anadromous fish projects becoming resident fish projects. The Department also recommended
30 adding (in proposed Section 3.1B.2) a sentence stating that CBFWA members "may shift the
31 percentage expended in each category (anadromous fish, resident fish and wildlife) if they do so by
32 consensus of all CBFWA members." (186, 189, 202)

33
34 The Burns Paiute Tribe "strongly" supported the draft amendments to Section 2.2,
35 especially the specified budget allocation of at least 15 percent for resident fish and for wildlife.
36 (176)

37
38 The Shoshone-Bannock Tribes commented generally that all other planning and
39 implementation problems pale when compared to the problems created by "the depauperate
40 amount of fish and wildlife mitigation funding provided by Bonneville." But the fact that this
41 inadequate funding is not fairly spread around the basin is another real problem, although there has
42 been a significant improvement over years past. The funding and implementation process needs to
43 ensure that even before projects are ranked, some level of basic funding will be provided each year

1 to each fishery manager to ensure that each manager can at least maintain an office and limited staff
2 on a year-to-year basis (195). The Burns Paiute Tribe submitted similar comments as to the
3 problems caused by the lack of funding and the need for a base or minimal funding level distributed
4 throughout the region before individual projects are ranked and funded. (218)
5

6 The Columbia River Inter-Tribal Fish Commission and one of its members, the
7 Confederated Tribes of the Umatilla Indian Reservation, supported the funding target approach in
8 the existing fish and wildlife program that identifies the funding allocations of 15/15/70 percent as
9 targets rather than hard and fast budget levels. They recommend the Council strike all references to
10 specific funding allocations in the resident fish and wildlife amendments. CRITFC stated that rigid
11 funding allocations do not account for variations in project funding needs and that setting funding
12 levels for anadromous and resident fish and wildlife on a basis other than the biological merits
13 regarding increasing population survival to prevent further decline might preclude the ability to direct
14 funding where it is most needed to prevent population extirpation. The Umatilla Tribes commented
15 that setting specific funding levels in the program is inconsistent with Sections 4(h)(6)(B), (D), and
16 (E)(i) and (ii) of the Act requiring the Council to adopt measures that are based on the best available
17 scientific knowledge, protect treaty rights, and provide for improved salmon flows and passage
18 survival. Rob Lothrop, CRITFC, commented in a consultation that CRITFC would have trouble
19 supporting fixed percentage allocations, noting that even current budget allocations do not leave
20 anything for important Oregon salmon projects. (168, 232, 233)
21

22 The Oregon Department of Fish and Wildlife commented that obligating 15 percent of the
23 budget to each of the resident fish and wildlife sections represents a reasonable allocation of funds in
24 the long term. However, given the anadromous fish crisis, allocation of funds in the short term
25 should be left to the discretion of regional managers to balance immediate needs against long-term
26 needs for all resources. (234)
27

28 Bonneville commented that it did not understand the reference in the amendment language to
29 budget levels that “will be appropriated” because Bonneville receives no appropriations for fish and
30 wildlife mitigation. Bonneville also noted it had concerns about setting absolute budget allocations
31 between program areas. The better course is to preserve flexibility and place all approved
32 measures and projects into the implementation planning prioritization process, funding whatever
33 projects have the greatest degree of certain benefits and measurability of results. Resident fish
34 projects should fare well in this type of process. The standard for program integration should be
35 the best overall benefit for fish, not specific flow volumes or budget levels or equal impacts between
36 resident and anadromous fish.
37

38 Bonneville also commented that it “believe[s] the first paragraph [of Section 2.2F.1, which
39 was not proposed for amendment] is inaccurate, and that it should be amended to read as follows:
40 “Each year, the Council will review the annual implementation plan and work with Bonneville in its
41 budget planning process to ensure implementation of fish and wildlife measures consistent with the
42 power plan, program, and the purposes of the Northwest Power Act.” [It is not clear from this
43 comment that Bonneville would simply edit the third sentence of this paragraph and retain the

1 existing language of the first two sentences, or whether Bonneville meant the first two sentences
2 should be deleted.] (146, 229)

3
4 Trout Unlimited, Montana Council, commented that the proposed funding targets should
5 remain flexible to allow funding to be directed where most needed. The Council should also
6 annually list what projects were not funded (both anadromous fish and resident fish and wildlife) to
7 maintain the 15-percent levels for resident fish and wildlife. (186)

8
9 The Flathead Basin Committee supported the proposed budget allocation, but noted that 15
10 percent for resident fish may not be high enough and urged the Council to follow through with a
11 1996 review of the budget allocations. (186)

12
13 Oregon Trout opposed efforts to fix funding levels without first defining what measures are
14 critical for listed species, which should be the main criteria driving prioritization and budget
15 allocations (209).

16
17 The American Fisheries Society, Oregon Chapter, similarly opposed fixed budget levels
18 “that will limit necessary flexibility to fund projects according to need and priority.” (199)

19
20 The Oregon Natural Resources Council commented that biological need and opportunity,
21 not arbitrary pre-set funding levels, should determine which species are given the highest priority for
22 protection and restoration. (231)

23
24 Public Utility District No. 1 of Okanogan County also opposed the mandated budget
25 percentages. The PUD recognized that all “facets” of the limited budget should be fairly treated, but
26 also that cost-effectiveness should be applied to the entire budgeting process, and “hard
27 percentages being imposed belies the meaning of cost-effectiveness.” (222)

28
29 The Oregon Water Coalition, Hermiston, Oregon, supported the proposed budget
30 allocations. (203, 252).

31
32 Everett Peterson, Roseburg, Oregon, opposed any budget limitations or specific allocations
33 in the short term, stating that accomplishing the most critical tasks at hand must be the priority (201).
34 Richard Hardin, Grants Pass, Oregon, objected to the recommendation to set specific funding levels
35 for resident fish and wildlife as “pure pork barrel.” (173)

36
37 **Findings:** The Council adopted what it proposed in the draft rule -- a budget allocation
38 formula of not less than 15 percent of Bonneville’s fish and wildlife program budget for resident fish
39 projects and the same for wildlife projects. In response to a comment from Bonneville, the term
40 “appropriated” has been replaced with the term “allocated” to make clear that the Council is
41 concerned with the allocation of the money in Bonneville’s budget derived from revenues and
42 intended to meet Bonneville’s fish and wildlife obligations under the Act.

1 It is an unfortunate reality that Bonneville's fish and wildlife budget, even as supplemented in
2 various ways, has not been and will not be adequate in the near future for full implementation of the
3 program. The Council adopted the 15 percent funding targets during the 1994 Phase Four resident
4 fish and wildlife amendments, as an estimate of what it could take to implement the resident fish and
5 wildlife programs over the next decade in a manner consistent with anadromous fish program
6 implementation. The Council now agrees with the current views of various fish managers and
7 others, especially from the upper parts of the basin, that the Council needs to take the next step to a
8 budget allocation formula as part of the effort to ensure that important resident fish and wildlife
9 needs are addressed and not ignored in a time of intense focus on salmon recovery, to ensure that
10 the program truly addresses the impacts of hydropower on fish and wildlife in the Columbia River
11 system as a whole, as the Act intended. The Council is comfortable that the trend in budget
12 allocation has been to move closer to the 15 percent budget targets in every succeeding year
13 (especially with regard to resident fish projects). The adoption of the budget allocation levels,
14 instead of targets, is intended not to let this progress slip away.

15
16 The Council is mindful of the admonition from the Umatilla Tribes, the Columbia River Inter-
17 Tribal Fish Commission, and others that a mandated budget level for any part of the program is not
18 the best procedure in a perfect world for addressing the most important fish and wildlife needs --
19 that all projects should be prioritized together and the most urgent funded no matter what type.
20 However, budget allocation and funding decisions are primarily policy questions that are not
21 completely amenable to objective, scientific determination and consensus prioritization. The
22 circumstances associated with the salmon crisis -- public attention; a crisis atmosphere; the greater
23 political, organizational, financial, institutional, geographical and population clout of those interested
24 in salmon; and the force of other statutory mandates -- could quite easily result in budget allocation
25 decisions that ignore what are truly high priority resident fish and wildlife needs, if all of the projects
26 were thrown into the same prioritization process. The Council's responsibilities under the
27 Northwest Power Act are not the same as the federal government's under the Endangered Species
28 Act. The Council and the Council's program have to be concerned with the protection and
29 mitigation of fish and wildlife throughout in the basin, not just those populations close to extirpation.

30
31 The Umatilla Tribes and CRITFC seemed to recognize this point implicitly by their
32 willingness to agree to at least the funding allocation targets, and by their initial participation in the
33 CBFWA consensus framework for resident fish that specified budget levels. The Council has
34 concluded that budget allocation levels are the appropriate tool to assure systemwide
35 implementation of important projects in the present situation, a decision that the Council intends to
36 revisit as conditions change and we learn from the experience with specified budget allocations.

37
38 The Umatilla Tribes expressed a concern that budget allocation levels might lead to project
39 implementation decisions that are inconsistent with the criteria for program measures in Section
40 4(h)(6). All of the measures in the program have been deemed to satisfy the criteria in Sections
41 4(h)(6) of the Act. Yet some may not be funded because Bonneville has made the determination
42 that it cannot at the present fully fund the program and yet meet all of its other obligations under the
43 Act and other statutes. Resident fish and wildlife managers are legitimately concerned that without

1 budget allocation levels, projects that address their activities and legal rights will receive no or
2 minimal funding. Allocating 15 percent of the budget to resident fish and wildlife projects will help
3 ensure that the benefits of the project budget are spread to complement the activities and legal rights
4 of people and entities throughout the basin. If the actual experience with the budget allocation levels
5 reveals that important anadromous fish, resident fish or wildlife measures that must be implemented
6 to complement the activities of the tribes and agencies and the legal rights of the tribes are not
7 implemented because demonstrably less important fish and wildlife measures are funded due to
8 mandatory budget allocations, the Council will revisit the budget allocation provision.

9
10 The Council did reject the recommendation to adopt a budget allocation level for resident
11 fish of 15 percent or \$15 million. The \$15 million figure represents the upper river agencies and
12 tribes' present estimate as to what it would take to implement fully the resident fish measures in the
13 program over the next decade. In a time of anticipated severe budget shortfalls, in which the
14 program may fail by a large measure in being fully implemented, the Council cannot fairly assign a
15 budget allocation level to any part of the program that would ensure that only part is fully
16 implemented. Instead, each part of the program must share in the program budget shortages,
17 through fair percentage allocations that ensure that implementation successes and failures are spread
18 throughout the program and the system to complement the most critical activities of all the agencies
19 and tribes.

20
21 The UCUT Tribes point to the fact that the fish and wildlife managers came to a consensus
22 agreement on the "15 percent or \$15 million" budget allocation, in the CBFWA consensus resident
23 fish framework submitted to the Council in February, and that the Council must defer this consensus
24 judgment. The consensus did not hold together on this point, as illustrated, for example, by the
25 comments of CRITFC and the Umatilla Tribes (advocating budget targets only) and ODFW (which
26 supported the straight 15 percent allocation level, and even that only in the long term and not the
27 short, to allow flexibility to assign more to anadromous fish). The Council considers budget
28 allocation decisions to be policy decisions that incorporate a host of factors that implicate the
29 Columbia River and its tributaries as a system. The Council gives special weight to the judgments of
30 the fish and wildlife managers, but it is the Council that is uniquely charged with ensuring that the
31 program is designed to deal with the Columbia River and its tributaries as a system, 16 U.S.C.
32 §839b(h)(1)(A). The UCUT Tribes would put a greater emphasis on the concept of budget equity;
33 the Council believes that budget equity is sufficiently well-served by a 15 percent budget allocation,
34 and that a rigid insistence on a specific dollar amount strays too far from the Act's emphasis on
35 cost-effective mitigation for the effects of the hydropower system. Requiring a minimum \$15 million
36 allocation too rigidly aims for budget equity without sufficient consideration of the biological needs of
37 fish and wildlife.

38
39 The Council does agree with the UCUT Tribes, however, that the 15 percent budget
40 allocation level should not be seen as an automatic ceiling, but instead as a minimum or floor funding
41 level. Rather than specify at least \$15 million, the Council chose instead to state the budget levels
42 for resident fish and wildlife as "not less than" 15 percent, affording the fish and wildlife managers,

1 the Council and Bonneville in any given year the flexibility to decide to assign a greater share of the
2 budget to important resident fish and/or wildlife projects.

3
4 For these reasons, the Council concludes that what the Council adopted is more effective
5 than the recommended language in providing for the balanced, systemwide protection, mitigation
6 and enhancement of fish and wildlife, 16 U.S.C. §839b(h)(7)(C), is more consistent with the Act's
7 requirement that the Council balance fish and wildlife measures with an adequate, efficient,
8 economical and reliable power supply, 16 U.S.C. §839b(h)(5), (7)(A), and better complements or
9 balances the views and activities of all the federal and state fish and wildlife agencies and
10 appropriate Indian tribes, 16 U.S.C. §839b(h)(6)(A), (7)(B).

11
12 The Council acknowledges that the Montana Department of Fish, Wildlife and Parks and
13 the Confederated Salish and Kootenai Tribes commented in support of the 15 percent budget
14 allocations under the understanding that resident fish substitution projects should or would be part of
15 the anadromous fish budget and not the resident fish budget. These entities raise an interesting point
16 for the region to consider, but the Council could not adopt this position in this rulemaking even if it
17 wanted to. Under the existing program, resident fish substitution projects are considered part of the
18 resident fish portion of the program. Under the present budgeting process, resident fish substitution
19 projects are part of the resident fish budget. The Council understood the budget recommendations
20 as not intended to change that fact, and the Council proposed budget allocation levels in the draft
21 rule with the understanding that resident fish substitution projects would be part of the resident fish
22 budget. In the draft rule, the Council did not provide public notice or an opportunity to comment on
23 the significant step of redefining resident fish substitution projects as part of the anadromous fish
24 program and anadromous fish budget. The Council may review the matter when the Council
25 reviews the budget allocation levels in 1996.

26
27
28
29 **Program Section(s):** **New 2.2I (systemwide policies/integrated rulemaking)**

30 Source: Confederated Salish and Kootenai Tribes

31 Recommendation No.: 95-2/0040

32 Source: Kalispel Tribe of Indians

33 Recommendation No.: 95-2/0082

34
35 **Recommendation:** The Confederated Salish and Kootenai Tribes recommended adding a
36 new systemwide policy to Section 2.2: "The Council will address system wide Program measures
37 (i.e., anadromous, resident fish and wildlife) under an integrated rulemaking process. This process
38 will facilitate a system wide approach that will assure that decisions made will take into account
39 potential conflicts between measures. If equity is not addressed in the 1995 resident fish and
40 wildlife rulemaking, the Council shall enter into a separate rulemaking considering the entire
41 Columbia Basin Fish and Wildlife Program as amended." The Kalispel Tribe submitted the same
42 recommendation, except to refer to "equitability" and not "equity."
43

1 The language proposed in both recommendations was one of a series of recommended
2 amendments intended primarily to change the way program planning and salmon restoration planning
3 and implementation occur so as to ensure that resident fish and wildlife needs get full consideration
4 at the same time. For example, both recommendations coupled this proposed revision to Section
5 2.2 with recommended additions to Section 5.1D.2 concerning operating rules for flow
6 augmentation, discussed below. In addition, the Confederated Salish and Kootenai Tribes added a
7 proposed revision to Section 5.4A, concerning spring salmon flows in the Columbia (see below).
8

9 **Draft:** The Council modified these recommendations to add to the draft, as a new Section
10 2.1I.1, that “[h]enceforth, the Council rulemakings will facilitate a system wide approach that will
11 assure that decisions made will take into account potential conflicts between measures.
12

13 **Comment:** The UCUT Tribes “strongly support” that future Council rulemakings not
14 artificially separate anadromous fish from resident fish and wildlife, to facilitate a systemwide
15 approach that can take into account potential conflicts between measures as required by Section
16 4(h)(1)(A) of the Act. (196)
17

18 The Burns Paiute Tribe stated that it “strongly supports the new language adopted in the
19 systemwide goal and framework section.” (176)
20

21 The National Park Service, Coulee Dam Recreation Area, commented in support of the
22 recommendation for an “integrated ‘biologically based’ rulemaking process that supports a
23 ‘systemwide’ approach during planning and subsequent management stages” that “will help to rectify
24 potential conflicts between individual measures” and “encourage greater equity between
25 anadromous fish and the resident fish and wildlife portions of the program. “The Council must
26 prioritize recommendations within the resident fish and wildlife portions of the program according to
27 how well they fit into the ‘reasonable balance’ system approach between protection of anadromous
28 fish and resident fish and wildlife.” (228)
29

30 Seattle City Light similarly commented in support of the recommendations for an integrated
31 (and ecologically integrated) rulemaking process for anadromous and resident fish and wildlife.
32 (141)
33

34 The Columbia River Inter-Tribal Fish Commission commented generally that the Council’s
35 decision-making priority should be to give priority to measures that harmonize anadromous and
36 resident fish needs (such as the Pend Oreille lake level measures that allow for summer flow
37 augmentation for anadromous fish and higher winter elevations for resident fish) and not measures
38 that exacerbate conflicts. (233)
39

40 Bonneville commented generally that it supports integrated planning and operations to
41 benefit fish and wildlife to the greatest degree possible in part to reduce detrimental impacts to
42 resident fish, while it raised concerns about setting absolute allocations between program areas.
43 The best course is to preserve flexibility and place all approved measures and projects into the

1 implementation planning prioritization process, funding whatever projects have the greatest degree
2 of certain benefits and measurability of results. Resident fish projects should fare well in this type of
3 process. The standard for program integration should be the best overall benefit for fish, not
4 specific flow volumes or budget levels or equal impacts between resident and anadromous fish.
5 (146)
6

7 The Oregon Natural Resources Council commented that the distinction between native and
8 exotic species is more relevant than and should be emphasized in the program over the distinction
9 between anadromous and resident fish. The Council's policy should be to not consider
10 recommendations that do not distinguish between native and non-native stocks, with native species
11 receiving clear preference for protection and restoration. The conflict between anadromous and
12 resident fish is not inherent but human-caused; before humans radically altered the ecosystem,
13 anadromous and resident fish co-existed in the basin. The Council should not accept the necessity
14 for trade-offs between anadromous and resident fish, but instead should actively seek and give
15 preference to solutions that benefit all native species (such as removing the lower Snake dams to
16 benefit anadromous fish without the seasonal impact on resident fish and wildlife). (231)
17

18 Flathead Save Our Lake from Kalispel, Montana, noted generally that a successful salmon
19 recovery program could have benefits for resident fish by, for example, helping to define the
20 problems associated with restoration of all types of endangered fish, by providing food sources for
21 wild birds and other fish predators, lessening the predator pressure on other fish, and by providing a
22 fishery that will lessen the fishing pressure on other fish. (161)
23

24 **Findings:** The Council adopted a slightly revised version of what it proposed in the draft
25 rule -- "Council rulemakings will facilitate a systemwide approach to ensure that decisions made
26 take into account potential conflicts among measures." The Council considers that it adopted the
27 substance or spirit of these recommendations, even if it did not adopt the precise language
28 recommended. The Council agrees that no rulemaking, and no measure of any significance
29 considered in any rulemaking, should receive other than a systemwide level of scrutiny, which will
30 take into account how that rulemaking or that proposed measure will affect other measures. In this
31 latest round of rulemaking, the Council followed this policy by, for example, scrutinizing the
32 proposed anadromous fish measures (in late 1994) for impacts on resident fish and upriver storage
33 reservoirs and adopting reservoir operating criteria to protect resident fish communities; entertaining
34 and approving in this rulemaking recommendations for changing the operation of FOEC and the
35 Fish Passage Center to better integrate resident fish and anadromous fish concerns; and analyzing
36 the more stringent operating criteria for Grand Coulee Dam for their impacts on anadromous fish
37 flows before adopting the criteria proposed. The Council did not adopt the precise language that it
38 address systemwide measures in "an integrated rulemaking," primarily because it is not clear what
39 this would mean, it appears to be superfluous, and if it is not, the Council needs to retain the
40 flexibility to enter into rulemakings that open for review only portions of the program, even as those
41 recommended changes receive a "systemwide" review. To the extent that any time a rulemaking or
42 a recommended measure in a rulemaking presents systemwide implications, the Council, by the
43 adopted language, has expressed clearly what was already its implicit policy of integrating those

1 systemwide concerns and perspectives into its consideration of the rulemaking and the
2 recommended measures.

3
4 The Council did not adopt the language in the recommendation which would require a new
5 and separate rulemaking if “equity [equitability] is not addressed in the 1995 resident fish and
6 wildlife rulemaking.” The Council will strike a balance between the needs of the various categories
7 of fish and wildlife and an adequate, efficient, economical and reliable power supply. The term
8 “equity” as used in the recommendation is unclear, and it is equally unclear as to how the Council
9 would decide if equity has been addressed in the 1995 resident fish and wildlife rulemaking. The
10 Council will be guided instead by the provisions and criteria of the Act in carrying out its
11 responsibilities. Note also that the Council is adopting a recommended amendment to Section
12 2.2F.1, calling for a specific budget allocation to resident fish and wildlife projects, and amendments
13 to Section 3.1B, Implementation and Monitoring, which allow the fish and wildlife managers to
14 recommend to the Council priorities among fish and wildlife projects, in effect providing the fish and
15 wildlife managers an opportunity to address the issue of “equity” called for in this measure.

16
17 For these reasons, the Council concludes that the recommended language is less effective
18 than what was adopted in protecting, mitigating and enhancing fish and wildlife and that the various
19 provisions the Council has adopted better complement the activities of all the federal and state fish
20 and wildlife agencies and appropriate Indian tribes, 16 U.S.C. §839b(h)(6)(A), (7)(B). More
21 technically, the Council may also decline to adopt the recommended language simply because it
22 concerns the Council’s rulemaking process and is not really a recommendation for a measure to
23 protect, mitigate or enhance fish and wildlife. 16 U.S.C. §839b(h)(2)(A), (5), (7)(A).

1 **SECTION 3: COORDINATED IMPLEMENTATION, RESEARCH, MONITORING**
2 **AND EVALUATION**

3
4
5 **Program Section(s): 3.1B (implementation planning process)**

6 Source: Upper Columbia United Tribes (Spokane Tribe, Coeur d'Alene Tribe,
7 Kalispel Tribe, Kootenai Tribe)

8 Recommendation No.: 95-2/0075
9

10 **Recommendation:** The Upper Columbia United Tribes recommended deleting the
11 implementation planning process and many of the other processes in the program and replacing
12 them with a simplified planning process that affords great deference to the implementation planning
13 decisions of the agencies and tribes through the Columbia Basin Fish and Wildlife Authority
14 (CBFWA). The revised planning process was found in the UCUT Tribes' revised Sections 3.1B
15 and 3.1D.1. To summarize:

16
17 (1) Delete all of existing Section 3.1B (implementation and monitoring) except Section
18 3.1B.6 (concerning FERC), which is renumbered Section 3.1B.7.

19
20 (2) Add a new Section 3.1B that provides the heart of the simplified implementation
21 planning process: The section is to begin with a statement describing what is wrong with the current
22 process, primarily that it costs too much, takes too much time, delays project implementation and is
23 not always consistent with the collective management priorities of the agencies and tribes. In the
24 new process, the Council and Bonneville are to annually negotiate a total funding level for the
25 program, and include in that funding the amount for Council oversight and the amount for Bonneville
26 oversight. The rest is the amount available to fund fish and wildlife measures, which will be
27 communicated to CBFWA. CBFWA will create an "A" list (and workplan) of the priority projects
28 that exactly totals the money budgeted for projects, with a 70 percent, 15 percent, 15 percent
29 allocation between anadromous fish, resident fish and wildlife. CBFWA can shift the allocations by
30 consensus decision. The Council will review the "A" list for consistency with the program, which
31 means only whether the projects listed have been previously approved by the Council as program
32 measures in a public review process. Council review at this stage thus need not be a public review
33 process. After Council review and approval, Bonneville will fund these projects as expeditiously as
34 possible.
35

36 CBFWA will also produce each year a second or "B" list of projects and estimated budget
37 numbers which will represent a full implementation budget for all the measures in the Council's
38 program. The Council is to assume that the "A" and "B" lists are the best documents available to
39 describe "the collective management goals of the fish and wildlife agencies and tribes as required by
40 the Power Act. Additionally, since the agencies and tribes collectively represent all of the
41 geographic locations/ecosystems within the Basin, the Council will also assume that the CBFWA
42 priorities also represent the best possible balance for protecting and enhancing the various biological
43 communities within the Columbia River Ecosystem." The Council will also review and approve the

1 "B" list, on the same basis as the "A" list, and then use the "B" list to help determine what total
2 program funding levels should be and to negotiate future annual funding levels with Bonneville.
3 Meanwhile, Bonneville is to conduct an internal audit to determine how to lower its internal costs for
4 program management.

5
6 (3) Delete all but the last paragraph to the introductory narrative to Section 3.1C, on
7 management and coordination. Retain the measures in Section 3.1C, however.

8
9 (4) Retain the existing language of the introductory narrative to Section 3.1D, concerning
10 the Integrated System Plan. Delete all of the provisions of Section 3.1D, concerning the subregional
11 process (primarily intended for coordinated production and watershed planning and also described
12 in Section 7.0 of the program), and replace with a brief, new Section 3.1D.1: "Fishery managers
13 shall incorporate elements of the Integrated System Plan into their annual List A workplan submitted
14 to the Council. The Council will assume that the list represents the best collective management
15 priorities of the fishery managers in terms of implementing the Integrated System Plan." The UCUT
16 Tribes state that this provision is intended to replace, among other things, the model watershed and
17 complex watershed process in existing Section 7.7.

18
19 (5) Delete Sections 3.1E (management review); 3.2B (independent scientific evaluation);
20 3.2C (key uncertainties); and 3.2F (regional analytical methods coordination).

21
22 Note: This recommendation and another from the UCUT Tribes (95-2/0076)
23 recommended deleting certain portions of Section 7, including Sections 7.1I (biodiversity institute);
24 7.2B (hatchery evaluations); 7.2C (partnerships in hatchery production); 7.2D, 7.2D.1, 7.2D.2 and
25 7.2D.3 (part of the section on improved propagation at existing facilities); 7.6C (coordinated habitat
26 planning); 7.7, 7.7A, 7.7A.2, 7.7A.3, 7.7A.4 and 7.7A.5 (most but not all of the coordination of
27 watershed activities); all of 7.7B (model watersheds); and part of 7.8D.1 relating to model
28 watersheds, and inserting new language concerning coordinating watershed activities. These
29 recommended amendments are discussed below, in a subsection relating to Section 7.

30
31 **Draft:** The draft included the UCUT Tribes' proposed revisions for Section 3.1B
32 concerning the implementation planning process, both deletions and replacement language. The
33 Council's only change of significance in this section was to alter the mandated funding levels to call
34 for "at least" 15 percent of total budget dollars to go to resident fish and to wildlife (an issue
35 discussed above in the recommendation for Section 2.2F.1). The draft rule did not include the
36 other portions of this recommendation. The entire recommendation was included in an appendix to
37 the draft rule entitled "Other Amendment Recommendations On Which the Council Specifically
38 Invites Comment."

39
40 **Comment:** At the time the UCUT Tribes submitted this recommendation, and continuing
41 through the rulemaking process, the Council, Bonneville and CBFWA (including the UCUT Tribes),
42 with the assistance of other groups, were actively engaged in an effort to reform the implementation
43 planning process. This effort was detailed in, among other places, an April memorandum from

1 Council staff member Doug Marker (95-2/0155). Thus the UCUT Tribes' recommendation
2 became one of a number of alternatives under review for replacing the existing implementation
3 planning process.
4

5 For comments specifically concerning the recommended budget allocations, see above at
6 the findings for Section 2.2F.1.
7

8 The UCUT Tribes, collectively and individually, confirmed their support for the
9 recommendation, in extensive comments, as a way of "streamlining the process and putting more
10 money into tangible results on the ground." The Tribes stated that the Council's original language
11 has the potential to produce program implementation that does not complement the activities of the
12 fish agencies and tribes nor is that language consistent with the legal rights of the tribes, as required
13 by Section 4(h)(6)(A) and (D) of the Act. The Act contemplates that other entities -- utilities,
14 public interest groups, etc. -- are to participate in program development through recommendations
15 and comments but not in implementation, in which the Act gives deference to the management
16 objectives and activities of the agencies and tribes, especially tribal governments. The Council
17 needs to support this position by directing Bonneville about which program measures to fund,
18 interacting with the agencies and tribes to develop the CBFWA workplan and "then sending explicit
19 instructions to BPA to fund it." The pace of implementation is slowed because Bonneville's process
20 includes power and other interests that are opposed to the agencies and tribes management goals
21 and objectives, yet are given an equal voice in the process contrary to the Act and the Ninth
22 Circuit's opinion calling for deference to the agencies and tribes management.
23

24 The UCUT Tribes recommended the deletion of the various provisions in Sections 3 (and in
25 Section 7) because these have introduced complex layers of process and numerous redundant
26 committees that are interfering with implementation and recovery. The institutional structure of the
27 fish and wildlife program needs to be reduced. Recent Council amendments have added calls for
28 the policy level Basin Oversight Group; quarterly meetings with policy makers from the tribes;
29 expanded implementation processes that include land and water managers, utilities, and citizens
30 groups; subregional teams to develop new subregional plans; management consultants to analyze the
31 structure of the program; an independent scientific evaluation of the program; and a center for
32 regional biological analysis. The entire section needs to be deleted because it adds too much
33 expensive process that slows implementation further at the expense of actual benefits to fish and
34 does not contribute useful biological information. Moreover, no funding for tribal participation has
35 been envisioned, "so it will be virtually impossible for the tribes to participate adequately if this
36 structure is left in the program," in "direct contradiction" to Section 4(h)(6)(A). The Tribes
37 questioned where all of the process came from in the first place, as it is not and has never been
38 consistent with the management objectives of the agencies and tribes, the legal rights of the tribes, or
39 the ability of the managers to protect, restore and enhance fish and wildlife. "[D]elayed
40 implementation caused by redundant committee oversight and watershed management teams is now
41 a principle factor in causing further decline in fisheries."
42

1 The UCUT Tribes concluded that only 43 percent of Bonneville program expenditures have
2 gone to on-the-ground benefits, with the rest for process-related activities and overhead, including
3 activities that “second guess” the management objectives and activities of the agencies and tribes,
4 such as the RASP process which essentially duplicated the integrated system plan, needlessly
5 delaying implementation. The best example of subverted process has been what has happened with
6 the Yakama and Nez Perce hatcheries. The Tribes estimated that if the process continues as in the
7 past, it will cost the ratepayers \$400 to \$500 million over the next decade that would be directed
8 under the Tribes’ simplified planning process to on-the-ground protection and enhancement
9 activities. (174, 188, 196)

10
11 The Washington Department of Fish and Wildlife suggested placing a specific limitation on
12 the amount of the budget that can be spent on oversight and clarifying what constitutes oversight by
13 both the Council and Bonneville. WDFW also recommended that language be added to this section
14 clarifying that it is the member agencies and tribes of CBFWA (not CBFWA) that will be
15 responsible for developing project priorities. (230)

16
17 The Oregon Department of Fish and Wildlife commented that recognizing CBFWA as the
18 exclusive source for the prioritization recommendations for Bonneville-funded projects under the
19 Council’s program may not be desirable or practical. The Council should work with CBFWA to
20 include projects proposed by others in the A list submitted to Bonneville for funding. ODFW
21 recommended that the Council retain the provisions in Section 3 for independent review of projects
22 by the ISG and for coordination of regional analytical methods. Any deletions in the program that
23 compromise regional efforts to independently review projects and coordinate regional analytical
24 methods is not prudent. (234)

25
26 The Montana Department of Fish, Wildlife and Parks recommended the addition of the
27 following sentence to proposed Section 3.1B.2: “CBFWA members may shift the percentage
28 expended in each category (anadromous fish, resident fish and wildlife) if they do so by consensus
29 of all CBFWA members. (202)

30
31 The Confederated Tribes of the Umatilla Indian Reservation commented that changes in the
32 project prioritization process must be consistent with treaty rights of the Columbia River treaty
33 fishing tribes and provide for protection, recognition and effectuation of treaty rights of the four
34 lower Columbia River treaty tribes. The Umatilla Tribes further noted that they are an active
35 member of CBFWA and support the use of this forum to prioritize projects for implementation
36 under the Council’s program. However, the using CBFWA to prioritize projects for implementation
37 must in no way diminish Bonneville’s obligation to maintain “a direct government-to government
38 relationship with the CTUIR and protect the treaty reserved rights and resources when addressing
39 funding of protection mitigation and enhancement projects.” (232)

40
41 Rob Lothrop, Columbia River Inter-Tribal Fish Commission, commented in a consultation
42 that simply looking at the available money and then ranking proposals to match this amount is not
43 the best way to pursue Bonneville funding, that this process should be pursued more analytically.

1 He also noted that even if an improved implementation planning process saved Bonneville up to
2 \$20-30 million, good projects that are not currently funded will need that money. (168)
3

4 The Colville Confederated Tribes noted generally that the current draft rule in its entirety
5 “has the potential to increase the amount of process involved implementing on the ground projects,”
6 and that the Tribes have “concerns that project implementation may be severely delayed with this
7 increase in program process.” (226)
8

9 The Shoshone-Bannock Tribes commented generally that all other planning and
10 implementation problems pale when compared to the problems created by “the depauperate
11 amount of fish and wildlife mitigation funding provided by Bonneville.” But the fact that this
12 inadequate funding is not fairly spread around the basin is another real problem, although there has
13 been a significant improvement over years past. The funding and implementation process needs to
14 ensure that even before projects are ranked, some level of basic funding will be provided each year
15 to each fishery manager to ensure that each manager can at least maintain an office and limited staff
16 on a year-to-year basis. The implementation planning and prioritization process should also
17 emphasize interconnected basic programs and projects, such as low-tech, low-profile fish and
18 wildlife habitat and production efforts spread out over various parts of watersheds to boost
19 productivity of native species, rather than a few expensive, high-tech, large-scale hatcheries and
20 efforts to build non-native fisheries. (195)
21

22 The Burns Paiute Tribe submitted similar comments as to the problems caused by the lack
23 of funding, the need for a base or minimal funding level distributed throughout the region before
24 individual projects are ranked and funded, the excessive amount of hatchery projects prioritized and
25 funded, and the need instead to take an ecosystem approach that emphasizes habitat improvements.
26 The Tribe also stated that projects in the program should have a clear beginning and end and should
27 not be funded indefinitely, as too many appear to be. All projects are in need of critical review of
28 their scientific merits. (218)
29

30 Bonneville objected to many of the aspects of the UCUT Tribes’ proposed implementation
31 planning process amendment. Bonneville has requested that CBFWA work with the Council this
32 year to facilitate the prioritization process. But given that there have been many discussions and
33 proposals about changes to the planning process, “including government-to-government
34 relationships and block grants to some Tribes, individual rankings by different groups, and other
35 suggestions, it seems unwise to lock in selection of CBFWA as the process facilitator and limit
36 communications to CBFWA members.”
37

38 Bonneville particularly objected to the proposed language directing Bonneville to fund
39 CBFWA’s A-list “without exception” and, if it does not, that the Council find Bonneville out of
40 compliance with the Act. “It is unclear how this draft amendment fulfills the requirements stated in
41 Sections 4(h)(5), (6), (7) and (8) or 4(j) of the Act, suggesting it may be arbitrary and capricious.”
42 Moreover, these provisions fail to account for limitations on Bonneville’s mitigation funding authority
43 under Section 4(h)(10)(A) of the Act. Bonneville must decline to fund, for example, measures

1 intended to mitigate for social, cultural or economic losses, or measures proposed as non-federal or
2 non-power purpose mitigation, or to relieve other entities of their authorized or required funding
3 obligations. Such a funding requirement might very well be inconsistent with Bonneville's duty under
4 Section 4(h)(5) to assure the region an adequate, efficient, economical, and reliable power supply.
5 Also, some measures require a great deal of planning and environmental compliance. The schedule
6 for funding the A-list might not allow for adequate time to complete the planning and review, yet
7 Bonneville could be found in noncompliance. Finally, Bonneville noted that the proposed
8 amendments appear to be inconsistent with Section 4(j) of the Act, which already provides a means
9 for the Council to review the consistency of Bonneville's actions under Section 4(h).

10
11 Bonneville commented that the program should not specify implementors or contractors for
12 measures, only the project and the name of the source or proposer of the measure, and that the
13 Council should amend the implementation planning process section and the rest of the program to
14 be consistent with this intent. (146, 229)

15
16 The National Park Service, Coulee Dam Recreation Area, agreed with the "concept" of a
17 simplified implementation planning process that affords great deference to the fish and wildlife
18 agencies and tribes through CBFWA. "However, it is not in the best interest of any agency with
19 responsibility for managing resources in areas that suffered fish and wildlife losses to defer important
20 decisions to an organization without full agency representation." The Park Service "strongly
21 urge[d]" Park Service representation "at all levels to effectively carry out our responsibilities as an
22 involved resource agency." The Service encouraged the Council to "prioritize recommendations"
23 and ensure in that process a reasonable balance between anadromous fish and resident fish and
24 wildlife. "This can be accomplished through an evaluation and decision-making process that
25 involves review by technical and management specialists, as appropriate, from the full range of
26 resource management agencies and tribes directly responsible for the on-site management of
27 resources in the Columbia Basin." (228)

28
29 Oregon Trout opposed limiting the project selection process to CBFWA control, in that
30 CBFWA "is a vested interest in some activities that harm native fish populations, and ought not be
31 given further priority than agencies already have under the Northwest Power Act." The Council
32 should retain existing Section 3.1B on implementation and monitoring. Provisions in the existing
33 section that take into account issues of scientific uncertainties and monitoring to address those
34 uncertainties must be retained. (209)

35
36 The American Fisheries Society, Oregon Chapter, opposed a project selection process
37 dictated only by CBFWA, "which could restrict public involvement." (199)

38
39 The Flathead Basin Committee supported the streamlined process in the proposed
40 amendments for Section 3.1B, and added that monitoring and evaluation programs should be in
41 place prior to implementation of any of the program measures. (186)

42

1 The Public Power Council commented that it recognized and respected the perspective of
2 the fish agencies and tribes, believed their involvement is a fundamental basis for success, and seeks
3 to work with them in an open and sound decision-making process. PPC stated that it realized, as
4 did the Council and the agencies and tribes, “that a successful mitigation program must be based on
5 clear priorities,” and noted that there are “legitimately different ways to prioritize mitigation actions
6 and expenses.” “Under the Act, the Council is charged with establishing priorities for the basin
7 through an open and public process. We would like to participate as you move toward
8 implementation of your plan and strongly encourage the Council to keep the entire process open to
9 all of the major players.” (219)

10
11 The Eugene Water and Electric Board echoed the comments of the Public Power Council,
12 concluding that EWEB understands that “the Council’s responsibility to establish priorities is
13 demanding and difficult,” and appreciated the Council’s “efforts to keep the priority-setting process
14 open to all interested parties.” (208)

15
16 The Western Montana Electric Generating and Transmission Cooperative also opposed the
17 recommended revisions to Section 3.1B and asked that they be deleted. WMG&T commented
18 that the proposed amendments greatly expand CBFWA’s role and should be rejected because they
19 go well beyond what was envisioned or stated in the Act, as indicated by what is in Sections
20 4.(h)(2) and (4)(A). The proposed process is an attempt to limit public participation and review, in
21 clear violation of the Council’s responsibility to provide for an open review process under Section
22 4(h)(4)(B) of the Act and is counter to the open discussion and dialogue that the Council has
23 worked almost 15 years to promote. The requirement in proposed Section 3.1B.3 that the
24 Bonneville Administrator “fund [the workplan] without exception” is overly broad and extends to
25 both the Council and CBFWA authorities not granted in the Northwest Power Act. WMG&T also
26 commented that all project proposals should be put out to an open and public bidding process to
27 assure the lowest possible cost, and that a “sunset” clause, like that proposed in Section 10.8B.26
28 (Lake Roosevelt pilot project) be included in all projects (221).

29
30 Public Utility District No. 1 of Okanogan County stated that it agreed with the comments of
31 WMG&T in this rulemaking, and added that the PUD did not agree that the Columbia Basin Fish
32 and Wildlife Authority’s priorities “represent the best possible balance” of fish and wildlife resources
33 for the Columbia River ecosystem. The PUD suggested that the Council consider setting priorities
34 in a public process, with the participation of local people affected by the decision-making process.
35 (222)

36
37 Steven M. Bruce, Boise, Idaho, commented generally that an enormous amount of money
38 had been spent on studies and processes without producing meaningful results, and that the money
39 would be better spent on activities benefiting fish. (182)

40
41 Everett Peterson, Roseburg, Oregon, stated that “all qualified sources” must be permitted to
42 participate in implementation planning and prioritization (201). Richard Hardin, Grants Pass,
43 Oregon, objected that the recommendation for a project selection process “to be dictated only by

1 [CBFWA] is a blatant attempt to exclude many concerned citizens who live outside the area, but
2 who would share in the costs, as well as suffer from the results of this attempted power grab.”
3 (173)
4

5 **Findings:** The Council revised the draft rule language, resulting in a Section 3.1B that has
6 been extensively modified from what it was in the 1994 program, but also significantly modified from
7 what was recommended by the UCUT Tribes. The Council believes that the revised language
8 incorporates the core of the recommendation, simplifies the implementation planning process,
9 clarifies the roles of the respective parties in implementing the program, and gives appropriate
10 deference to the fish and wildlife managers, while preserving the appropriate roles assigned to the
11 Council and Bonneville under the Act and allowing for public comment and review, also a purpose
12 of the Act.
13

14 In accord with the recommendation, the revised Section 3.1B calls upon the Council and
15 Bonneville to negotiate annual funding levels for the fish and wildlife program and communicate these
16 levels to the fish and wildlife managers. The recommendation then called for the fish and wildlife
17 managers to prioritize the projects to correspond to the negotiated funding level. The
18 recommendation was not clear as to what criteria the managers were to use to prioritize the project
19 except to the extent the Council was to review the prioritization for consistency with the program.
20 To make this point clear, the Council added a provision calling on the fish and wildlife managers to
21 recommend prioritization criteria for Council review and approval. The Council’s intent is that the
22 prioritization criteria will be based on the priorities, principles, goals, objectives, standards and the
23 like stated in the Act and the program, such as, for example, the salmon and steelhead rebuilding
24 principles in Section 4.1A and the priorities for the resident fish program in Section 10.1B.
25

26 Then, again in accord with the recommendation, the fish and wildlife managers are to
27 prioritize proposed anadromous fish, resident fish and wildlife projects and recommend a prioritized
28 project list and workplan to the Council. The recommendation called for an A list that matched the
29 negotiated budget level, and a B list that ranked all projects. The Council called instead for one list
30 in which all of the projects are ranked or prioritized. It will be obvious which projects will make the
31 cut for funding and which will not. The recommendation did not specify the source of proposed
32 projects for the fish and wildlife managers to consider; the final language covers that point. Also, the
33 recommendation called for the Columbia Basin Fish and Wildlife Authority to develop the prioritized
34 projects list. The Council agrees on the need for some institutional arrangement in which all of the
35 fish and wildlife managers are gathered together to prioritize the projects. But the Council is
36 concerned that CBFWA does not represent all of the fish and wildlife managers (e.g., the Yakama
37 Indian Nation), and that the fish and wildlife managers need to have the flexibility to use whatever
38 institutional arrangement (CBFWA or something else) that can bring them all to the same table.
39 Thus the Council altered the language to allow the fish and wildlife managers to use CBFWA or
40 another arrangement of their choice, so long as that arrangement brings together the fish and wildlife
41 managers for project ranking.
42

1 The revised language then follows the recommendation by providing that the Council will
2 review the prioritized project list and a workplan for consistency with the program and forward an
3 approved list to Bonneville for funding. The recommendation then stated that if the Council did not
4 approve the fish and wildlife managers' recommended list, the Council was to continue to return the
5 list to the managers for revision and re-submission to the Council, until the Council approved a
6 project list from the managers. While the Council intends to follow that process in the ordinary
7 course of planning, the potential for an endless cycle of revision and re-submission in any given year
8 is obvious. Thus the Council altered the language to retain the flexibility when needed to conclude
9 the review process, revise the fish managers' project list and workplan and submit to Bonneville. In
10 another minor modification, the recommendation stated that the Council's review of the workplan
11 would not need to be a public review, since every element in the workplan would be linked to a
12 program measure, which would have been subjected to a public review when adopted into the
13 program. The Council understands its responsibilities under Section 2(3) of the Act to require
14 public review of a decision of the magnitude of its approval of the prioritized projects list for funding,
15 and so made this explicit in the revised Section 3.1B. The Council sees no reason not to let the
16 public comment on the workplan at the same time, with no particular prejudice or delay to result
17 and some benefits to be realized.
18

19 In developing this process of prioritization and review, the Council modified the
20 recommendation in two other respects. First, the recommendation called upon the Council to
21 assume that the prioritized list is the best reflection of the collective management goals of the fish and
22 wildlife agencies and tribes and that the CBFWA priorities represent the best possible balance for
23 protecting and enhancing the various biological communities within the Columbia River ecosystem.
24 The purpose of this language is unclear, since it would not affect the process described, in which the
25 fish and wildlife managers recommend a priority list of projects and the Council reviews for
26 consistency with the program. The Council is charged with the responsibility of carrying out the
27 purposes of the Act, which include developing a systemwide program to protect, mitigate, and
28 enhance fish and wildlife, including related spawning grounds and habitat, on the Columbia River
29 and tributaries. The measures which are the subject of prioritization under Section 3.1B are the
30 measures which have previously been approved by the Council as part of its fish and wildlife
31 program, based on the recommendations of the fish and wildlife managers (primarily) and others,
32 and giving due weight to recommendations, expertise and legal rights and responsibilities of the
33 agencies and tribes. By adopting these new provisions, the Council draws upon the knowledge and
34 expertise of the fish and wildlife managers in prioritizing projects within the context of limited funding
35 availability. In any particular prioritization process, the collective, consensus prioritization judgment
36 of the fish and wildlife managers may represent the best possible balance for protecting and
37 enhancing the various biological communities within the Columbia River ecosystem, and the Council
38 may defer to that judgment. But it is the Council that has been assigned the ultimate policy
39 responsibility under the Act for developing a program that treats the Columbia basin as a system,
40 Section 4(h)(1)(A), and for overseeing implementation for consistency with the Council's program.
41 The language in the recommendation requiring the Council to assume that the fish managers'
42 prioritization is the best reflection of systemwide needs and priorities is extremely important, but it
43 cannot be conclusive. In this respect the Council agrees with the Oregon Department of Fish and

1 Wildlife, Bonneville, the National Park Service, the Public Power Council, the Eugene Water and
2 Electric Board, the Western Montana Electric Generating and Transmission Cooperative, the
3 American Fisheries Society-Oregon Chapter, Public Utility District No. 1 of Okanogan County and
4 others, who objected to an implementation planning process that would delegate the conclusive
5 systemwide priority decisions to CBFWA and/or not allow public participation in the prioritization
6 process through the Council's public review responsibilities.
7

8 Second, the recommendation provided that if Bonneville does not fund the project list and
9 workplan, the Council is to "find the Administrator out of compliance with the Power Act." As
10 noted in the comments from Bonneville, Sections 4(i) and 4(j) of the Act specify how the Council is
11 to review the actions of Bonneville to determine whether Bonneville is acting consistent with the
12 power plan or fish and wildlife program and to secure in writing Bonneville's explanation for why it
13 is not undertaking action requested by the Council under the plan or program (which is part of the
14 power plan). These provisions of the Act guide how the Council reviews Bonneville's compliance
15 with the program. To the extent this is what the UCUT Tribes' recommendation means by calling
16 on the Council to find Bonneville "out of compliance with the Act," adding the language is not
17 necessary. To the extent the recommendation is intended to set up a different review process and
18 determination, this would have to yield to what the Act provides. In either case, the language would
19 serve no purpose, and the Council did not adopt it.
20

21 The revised Section 3.1B then followed the recommendation in calling on the Council to use
22 the fish and wildlife managers' full project list and estimated full implementation budget to negotiate
23 future funding levels with Bonneville. In an attempt to inject some budgeting and implementation
24 certainty into what has been a fluctuating and uncertain budget situation, the Council modified the
25 recommended language to call on the Council to negotiate with Bonneville to determine funding
26 levels five years into the future. And the Council adopted the final recommended addition to
27 Section 3.1B, calling on Bonneville to conduct an internal review to try to reduce its program
28 administration costs.
29

30 The UCUT Tribes' recommendation would have deleted all of Section 3.1B in the 1994
31 program (except the call to FERC at the end to take the program into consideration to the fullest
32 extent practicable, parroting the Act). The Council agrees that much of this section became
33 superfluous or inconsistent with the revised language and had to be deleted. But certain sections
34 remain important and have been retained. The Council retained (and revised) the provisions in
35 Section 3.1B calling generally for the various groups and entities involved in activities that affect fish
36 and wildlife in the basin to coordinate implementation to the greatest degree possible, in an attempt
37 to avoid the duplication, delays and problems that stem from unshared and uncoordinated
38 information and actions.
39

40 Of greater importance is the provision calling for the workplan and the Council's review of
41 the workplan to include actions to address key scientific uncertainties associated with the program.
42 The UCUT Tribes not only recommended deletion of this provision (retained as Section 3.1B.9),
43 but also of Sections 3.2B and 3.2C, which set up the Independent Scientific Group and the process

1 for independent scientific evaluation of the program and the identification of the key scientific
2 uncertainties underlying program development and implementation, and Section 3.2F, calling for
3 regional coordination of analytical methods. Our knowledge of the complex river ecosystems in
4 which the basin's fish and wildlife live is sketchy at best, and thus much of the program is based on
5 best available scientific knowledge that is riddled with uncertainties. This causes, among other real
6 problems, tremendous uncertainty and disagreement about the Council's decisions as to which
7 measures have the greatest promise of benefits and should be adopted and prioritized, and an
8 immense amount of public controversy and uneasiness about the actions for which the Council calls.
9 The Council's call to identify and address these uncertainties in the process of program
10 implementation, monitoring and evaluation, and to subject portions of the program and its
11 implementation to periodic independent scientific evaluation, is thus critical. It is the cornerstone of
12 the Council's adaptive management approach, which allows the Council to act in the face of such
13 key scientific uncertainty. It is the procedural price the region pays for action and not paralysis.
14

15 With regard to the provision calling for regional analytical methods coordination, this section
16 of the program calls for the development of a regional center for biological analysis. Computer
17 models and other analytical methods are essential to the program framework because they provide
18 a means to link program measures to survival targets, rebuilding schedules and rebuilding targets.
19 Unfortunately, the Council and the region have spent much time, effort and money over the last five
20 years arguing about the merits of conflicting computer models, based essentially on the lack of
21 empirical data and the not-well-understood differences in assumptions that the models have used to
22 portray the scientifically uncertain points. It is essential that the analytical assumptions be widely
23 understood and that an integrated approach is used so that conclusions reached can be compared.
24 This framework and analytical coordination is another necessary part of the adaptive management
25 approach adopted by the Council in its program and, it is hoped, will reduce process and
26 duplication and allow for more of these efforts to be directed to actual on-the-ground activities. In
27 short the Council agrees with the comment of ODFW that it would not be prudent for the Council
28 to delete portions of the program that would compromise regional efforts to independently evaluate
29 the program and projects and coordinate regional analytical methods.
30

31 The UCUT Tribes recommended still other deletions in Sections 3.1 and 3.2. None of
32 these deletions were included in the draft rule, nor did the Council adopt them. The UCUT Tribes
33 sought their deletion under the assumption that these are process provisions that take money and
34 effort away from on-the-ground activities that benefit fish and wildlife. The Council is sensitive to
35 unnecessary and complex layers of process and is mindful of the need to streamline its program so
36 that scarce resources are being used effectively. But the Council is also of the opinion that the
37 deletions called for would either not have the effect that the UCUT Tribes anticipate, or, in a few
38 cases, the added layer of process is justified by the purpose of the process.
39

40 As one example, the recommendation would strike all but the last paragraph of the
41 introduction to Section 3.1C, Management and Coordination, but would retain the substantive
42 measures in that section. The paragraphs recommended for deletion state the Council's
43 commitment to establishing a clear and responsible structure for management of the numerous

1 pieces of the program, and the Council's commitment to being responsive to suggestions for better
2 management and therefore better implementation of the program. Nothing would be accomplished
3 by their deletion, since no called-for activities would be deleted.
4

5 In the most important instance, the UCUT Tribes' recommendation also called for the
6 deletion of Section 3.1D, concerning the subregional process, which is primarily intended for
7 coordinated production and watershed planning for anadromous fish. The recommendation would
8 replace all of this section of the program with a brief, new Section 3.1D.1, calling on the fishery
9 managers to incorporate elements of the Integrated System Plan into their project list and workplan
10 submitted to the Council. This is a deceptively simplified approach that would likely lead to greater
11 delay and even paralysis in implementation. The agencies and tribes primarily involved in
12 coordinated production and watershed planning for anadromous fish could not reach a consensus
13 on the subbasin plans in the ISP for implementation (or on the revised subbasin plans in the tribal
14 restoration plan recommended to the Council in the 1994 anadromous fish rulemaking). Thus these
15 managers agreed that the ISP cannot and should not simply be implemented as is, under the current
16 circumstances. They agreed that the ISP should form the backbone or guide for production and
17 watershed planning, but that the subbasin plans to be implemented must still be perfected, and even
18 when the subbasin plans are in place, annual implementation planning must still take place.
19

20 The Council and others also recognized that comprehensive watershed planning for fish and
21 wildlife will affect and depend on the cooperative actions of many landowners, land managers,
22 governmental units and other interests in each watershed, and thus these interests must be involved
23 in implementation watershed planning in some fashion in order for implementation planning and
24 implementation to actually take place. All of this must be done in the face of a budget shortage that
25 will prevent funding of some projects and demand coordination in developing and prioritizing
26 watershed projects to get the most benefit for the dollars spent. Thus the Council and the fishery
27 managers who developed the subregional process provisions and the other coordinated production
28 and watershed provisions in Section 3.1 and elsewhere (such as Sections 7.0 and 7.7) recognized
29 that they needed some sort of coordinated production and watershed planning and implementation
30 planning process to reduce what could be a nightmare of additional planning processes and
31 implementation delays, and to bring together the important watershed and subregional (groups of
32 related watersheds) interests in coordinated planning units. Simply telling the fishery managers to
33 plan and prioritize these projects on the basis of the ISP would take the region back to square one,
34 without any process for resolving the obvious obstacles to implementation. Additional findings on
35 the production and watershed planning issues are below, in response to the UCUT Tribes'
36 companion recommendation to delete production and watershed provisions in Section 7.
37

38 In summary, the Council has concluded that what it has adopted is more effective than what
39 the UCUT Tribes recommended in providing the right type of implementation planning and
40 evaluation processes to contribute to the protection, mitigation and enhancement of fish and wildlife,
41 16 U.S.C. §839b(h)(7)(C), and is more consistent with the legal responsibilities and obligations
42 assigned to the Council and Bonneville under Section 4(h) and other parts of the Act.
43

1 The findings must explain why the Council deviated from the UCUT Tribes'
2 recommendation, and so these findings focus on the problems the Council saw in the
3 recommendation. This obscures the point that the Tribes have raised a most important issue, and
4 have performed a valuable service to the region in focusing on the problem of implementation delays
5 and excessive processes and in proposing solutions to those problems. What the Council has
6 adopted here is the first step in an effort to address those implementation problems, and yet retain
7 some important evaluation and review processes that serve the interests of implementation, even if
8 not always obviously and sometimes through the avenues of program legitimacy and adaptive
9 management. The Council intends to review and evaluate the revised implementation process, and
10 will not hesitate to take further actions if unreasonable delays in implementation planning continue to
11 occur and excessive process eats up the region's fish and wildlife budget. And the Council hopes
12 that the UCUT Tribes and other fish and wildlife managers will continue to probe and question in
13 this area.

14
15 The Council is also mindful of the concerns raised by the UCUT Tribes that because of
16 limited tribal funds, they are not able to adequately participate in many of the coordinated planning
17 processes, arrangements and evaluations which they have recommended for deletion. The Council
18 is not willing to jettison all of these provisions for this reason, but it is sensitive to the resource
19 problems faced especially by the (Columbia and Snake) tribes. The Council is willing to entertain
20 specific requests for travel funding from these tribes, as it has with FOEC, either in a
21 recommendation/rulemaking forum or outside of it.

22
23 With reference to the concern of the Confederated Tribes of the Umatilla Indian
24 Reservation, the Council does not intend for the provisions setting forth the project prioritization
25 process to interfere in any way with the Council's consideration of the Columbia River Treaty fishing
26 tribes and their treaty rights. Neither will they interfere with Bonneville's obligation to maintain "a
27 direct government-to-government relationship with CTUIR and protect the treaty reserved rights
28 and resources when addressing funding of protection, mitigation and enhancement projects."

29
30 Bonneville had several comments on the draft rule based upon what were described as
31 conflicts with the Act. These have been discussed above and resolved by changes in the draft.

32
33
34
35
36

1 **SECTION 5: JUVENILE SALMON MIGRATION**
2
3

4 **Program Section(s): 5.1A.2, 5.1A.6 (FOEC annual implementation plan)**

5 Source: UCUT Tribes (Spokane Tribe, Coeur d'Alene Tribe, Kalispel Tribe,
6 Kootenai Tribe)

7 Recommendation No.: 95-2/0078
8

9 **Recommendation:** The UCUT Tribes recommended adding a new measure to Section
10 5.1A, calling for the Fish Operations Executive Committee (FOEC), in its annual implementation
11 plan, to "specifically evaluate tradeoffs between flows needed for anadromous fish and reservoir
12 elevations and water retention times needed to protect resident fish and wildlife in upstream storage
13 reservoirs at Grand Coulee, Hungry Horse, Libby and Dworshak Dams." The plan is to describe
14 "[p]rojected specific impacts to resident fish populations and communities and their prey base and
15 habitat within each of these reservoirs" and develop mitigation measures to address adverse
16 impacts.
17

18 The recommended provision also stated that Bonneville is to fund participation of a UCUT
19 Tribal representative to act as a member of FOEC "and to assist the Council Fish Passage Advisor
20 and committee with modeling and evaluating impacts to resident fish and wildlife."
21

22 This was the first in a series of recommended amendments to Section 5, discussed below,
23 primarily from the UCUT Tribes and its members and from the Confederated Salish and Kootenai
24 Tribes. These recommendations were intended to ensure the integration of resident fish and wildlife
25 considerations in anadromous fish flow planning and management. This particular recommendation
26 also included proposed revisions to Section 5.1B.1, concerning the Fish Passage Center, and the
27 deletion of Section 5.4B.3, allowing for a summer draft of Grand Coulee, both discussed below.
28

29 **Draft:** The draft included the FOEC implementation plan language recommended by the
30 UCUT Tribes. The draft did not include the latter portion of the recommendation, concerning
31 participation funding.
32

33 **Comment:** The UCUT Tribes confirmed their support of the amendments regarding the
34 operation of FOEC, which should make the program more consistent with Section 4(h)(1)(A) of the
35 program. (174, 196)
36

37 The Confederated Salish and Kootenai Tribes commented that in their view FOEC has
38 always been charged with assuring that the Council's program was fully implemented, and therefore
39 affording protection to upriver resources. The recommended amendment will be a "needed
40 clarification of existing FOEC duties." The Tribes noted, however, that FOEC does not develop an
41 annual implementation plan and that operations of the Columbia River are now dictated by the
42 Technical Management Team under NMFS' 1995 Biological Opinion, thus raising questions about
43 the present role of FOEC. (191)

1
2 The Montana Department of Fish, Wildlife and Parks commented in support of the FOEC
3 amendments. (186 202)
4

5 The Oregon Department of Fish and Wildlife commented that any effort by FOEC to
6 develop and incorporate measures to mitigate for the impacts of its annual implementation plan on
7 fish populations should include anadromous and resident fish impacts, not just resident fish. (234)
8

9 The Columbia River Inter-Tribal Fish Commission commented generally that the Council
10 should give priority to measures that harmonize anadromous and resident fish needs (such as the
11 Pend Oreille lake level measures that allow for summer flow augmentation for anadromous fish and
12 higher winter elevations for resident fish) and not measures that exacerbate conflicts. (233)
13

14 Bonneville noted that this amendment (and the next) addresses trade-offs between flows
15 needed for anadromous fish and reservoir elevations and water retention times needed to protect
16 resident fish and wildlife. “How have the findings of the Biological Opinion, Draft Recovery Plan,
17 and the System Operations Review Draft Environmental Impact Statement (SOR DEIS) preferred
18 alternative been addressed in these sections? Are they consistent? What conflicts need resolution?”
19 Bonneville commented generally in support of integrated planning and operations to benefit fish and
20 wildlife to the greatest degree possible in part to reduce detrimental impacts to resident fish. The
21 standard for program integration should be the best overall benefit for fish, not specific flow volumes
22 or budget levels or equal impacts between resident and anadromous fish. (146, 229)
23

24 The National Park Service, Coulee Dam Recreation Area, generally supported proposals
25 “calling for greater environmental protection for resident fish and wildlife habitat, particularly in
26 Eastern Washington,” including water planning and management measures. “A defined process and
27 coordinating body is needed to ensure that resident fish and wildlife requirements become and
28 continue to be part of overall and long-term Columbia River Basin planning and operations.” The
29 Park Service supported a “Council policy that requires evaluation of anadromous fish measures, at
30 all stages, in full consideration of the effects on resident fish and wildlife. This could include a
31 “reservoir-specific process to coordinate and track storage reservoir operations during critical
32 anadromous fish migration periods.” (228)
33

34 Trout Unlimited, Montana Council, commented that the Council should describe the criteria
35 FOEC is to use to evaluate trade-offs between releasing reservoir flows for anadromous fish and
36 maintaining water in the reservoirs. It is unclear what FOEC will be looking at when determining
37 trade-offs. (186)
38

39 Seattle City Light commented generally in support of efforts to integrate planning and
40 operations for anadromous fish and resident fish and wildlife. (141)
41

42 The American Fisheries Society, Oregon Chapter, generally agreed that “[r]eservoir
43 management should be made in context with the regional needs for managing anadromous and

1 resident fish,” but the Society also emphasized that “[i]mpacts on reservoir fisheries that center on
2 non-native species should be secondary to recovery strategies for anadromous fish.” (199)

3
4 Oregon Trout opposed the proposed language, stating that a trade-off evaluation
5 requirement “will not assist in solving problems for either resident or anadromous fish.” Oregon
6 Trout generally and specifically objected to proposals that could limit water managers’ flexibility and
7 thus adversely affect efforts to recover endangered species, especially if the changes and limits in
8 water management are intended to benefit resident hatchery fish populations and non-native species.
9 (168, 209)

10
11 The Oregon Natural Resources Council commented that the distinction between native and
12 non-native species is more important than between anadromous and resident fish, and that the
13 conflict between anadromous and resident fish is not inherent but human-caused; before humans
14 radically altered the ecosystem, anadromous and resident fish co-existed in the basin. The Council
15 should not accept the necessity for trade-offs between anadromous and resident fish, but instead
16 should actively seek and give preference to water management and other solutions that benefit all
17 native species (such as removing the lower Snake dams to benefit anadromous fish without the
18 seasonal impact on resident fish and wildlife). (231)

19
20 A representative with the Sierra Club and Save Our Wild Salmon commented generally that
21 they had emphasized over the last few years that drawdowns of the lower Snake River and John
22 Day reservoirs in the salmon migration corridor have the prospect of improving the flows and river
23 conditions for salmon without requiring the huge amounts of flow augmentation that horribly impact
24 resident fish in the upriver storage reservoirs. (174)

25
26 A number of individual commentors supported efforts (in general or in response to specific
27 problems or recommendations concerning Lake Roosevelt or other reservoirs) to limit salmon flow
28 augmentation and curtail upriver reservoir drawdowns and reservoir level fluctuations, criticizing the
29 impacts of flow augmentation on productive resident fisheries, reservoir biology, recreation, and/or
30 local economies. Commentors included Al Stangland, Edwall, Washington; J.A. Boswell, Cheney,
31 Washington; Dr. and Mrs. Jerry McKellar, Colville, Washington; Tracy R. Parr, Spokane
32 Washington; Jim Scribner, Davenport, Washington; and Gary Fields, Nine Mile Falls, Washington.
33 (164, 171, 175, 179-81)

34
35 A number of individual commentors objected (in general or with regard to specific
36 proposals) to recommendations that would adversely affect native anadromous fish by reducing the
37 flows needed for juvenile salmon migration, especially if the resident fish to be benefited are non-
38 native fish species such as rainbow trout, walleye, perch and bass. Commentors included Bhagwati
39 Poddar and Saradell Poddar, Astoria, Oregon; Everett Peterson, Roseburg, Oregon; Richard
40 Hardin, Grants Pass, Oregon; Sue Knight, Portland, Oregon; Scott Bischke, Corvallis, Oregon; and
41 Steven M. Bruce, Boise, Idaho. (162, 165, 173, 182, 201, 211)

42

1 **Findings:** The Council adopted the recommendation, as a new Section 5.1A.6, with
2 modifications not intended to alter the core substance or purpose of the recommendation. In
3 developing the annual implementation plan, the Fish Operations Executive Committee is to
4 “specifically evaluate tradeoffs between flows needed for anadromous fish and reservoir operations
5 needed to protect resident fish and wildlife in the Columbia Basin storage reservoirs that are
6 federally operated, licensed or regulated.” The Council substituted the broader term “reservoir
7 operations” for “reservoir elevations and water retention times,” to make clear that FOEC’s
8 responsibility is to take into account the various reservoir operating criteria in the program.
9 Similarly, the Council broadened the measure to refer to all Columbia Basin storage reservoirs that
10 are federally operated, licensed or regulated instead of just the four dams specifically named. The
11 Council also decided not to adopt the language concerning the specific impacts and mitigation
12 measures to be described in the plan, partly to allow FOEC the flexibility to determine how to
13 evaluate and address these issues in the plan. In addition, the recommended language did not
14 accurately depict the responsibilities of FOEC to the extent that it assumed FOEC could develop its
15 own mitigation measures in the implementation plan to substitute for implementation of parts of the
16 Council’s program.

17
18 The Council also did not adopt the proposed language calling for funding a UCUT tribal
19 representative to act as a member of the FOEC and to assist Council staff and the fish passage
20 committee with modeling and evaluating impacts. The Council, in the second half of 1994, invited
21 the upriver tribes collectively to send a member to the FOEC (as the lower river tribes are
22 represented through Columbia River Inter-Tribal Fish Commission). The Council’s Advisory
23 Committee Rules allow for requests for funding for travel and related expenses for such
24 representation. Thus it is unnecessary to include this part of the recommendation in the program.

25
26 The Council agrees with the comment of the Confederated Salish and Kootenai Tribes that
27 FOEC’s duties already did involve recognition and protection of upriver resources, although the
28 added language is useful in making this point explicit. In response to the Tribes’ other comments,
29 and to the comment of Bonneville as to how the FOEC and this particular measure address the
30 Endangered Species Act documents and the Systems Operations Review DEIS, Section 5.1A.2 of
31 the program calls for the FOEC to produce a detailed annual implementation plan for carrying out
32 the work of the program. It is the Council’s understanding that FOEC and the Corps of Engineers
33 do continue to produce the annual plan. The Council believes FOEC is an important means of
34 communication between the federal agencies, the Council, the states and tribes, and other interests
35 that the Endangered Species Act has not historically included.

36
37 Trout Unlimited, Montana Council, commented that the Council should describe the criteria
38 FOEC is to use to evaluate tradeoffs between competing interests. The Council’s program contains
39 program goals and various policies, priorities and objectives; flow, spill and other river operation
40 objectives and measures; and storage reservoir criteria and objectives. The Council understands
41 that the FOEC will apply the program criteria. To make this point more clear, the Council amended
42 Section 5.1A.2 to state explicitly that when FOEC identifies water available in a particular year and

1 plans for its use, it do so “consistent with Council-specified reservoir constraints and anadromous
2 fish measures.”

3
4 There were a number of comments that called for greater support of resident fish and
5 wildlife, or for anadromous fish, or for native fish, or concerning specific reservoirs. Upriver
6 reservoirs and streams contain important populations of resident native fish, and important
7 populations of introduced fish to provide replacement fisheries for blocked salmon fisheries, in
8 habitats vastly altered by hydropower. The Council understands its obligation to protect, mitigate
9 and enhance anadromous fish and resident fish and wildlife in the Columbia basin as a system, which
10 means in part that the Council must review recommended measures and adopt program
11 implementation processes in an attempt to ensure that measures do not conflict and that helping fish
12 and wildlife in one part of the basin does not harm other fish and wildlife in that or other parts. The
13 Council has followed that standard in the December 1994 rulemaking and in this one, for example
14 by analyzing recommended river and reservoir criteria for their impacts on other parts of the system,
15 by adopting recommended criteria to protect, mitigate and enhance fish and wildlife throughout the
16 basin, and by integrating the criteria into systemwide planning and implementation processes, such
17 as FOEC and the Fish Passage Center (see the next recommendation and its findings). With regard
18 to comments on native and introduced fish, the discussion of priorities in Section 10.1B and the
19 findings for that section explain the Council’s policies regarding the relationship between introduced
20 fish for substitution purposes and native fish rebuilding efforts. The Council has developed a
21 program composed of measures which it believes are necessary to protect, mitigate and enhance
22 fish and wildlife throughout the system affected by the development, operation and management of
23 hydropower facilities and also assure an adequate, efficient, economical and reliable power supply.
24
25
26

27 **Program Section(s): 5.1B.1, 5.1B.2 (Fish Passage Center)**

28 Source: UCUT Tribes (Spokane Tribe, Coeur d'Alene Tribe, Kalispel Tribe,
29 Kootenai Tribe)

30 Recommendation No.: 95-2/0078

31
32 **Recommendation:** The UCUT Tribes recommended two revisions to Section 5.1B,
33 concerning the Fish Passage Center:

34
35 Section 5.1B.1: Add to the tasks assigned to the Fish Passage Manager: "Evaluating
36 tradeoffs between anadromous fish and resident fish to ensure that implementation of flow and spill
37 requests equalizes benefits to both types of fish."
38

39 Section 5.1B.2: Insert a sentence stating that "[t]he Fish Passage Center manager will be
40 selected by members of the Columbia Basin Fish and Wildlife Authority and report to the
41 Authority's Executive Director. All correspondence from the Fish Passage Center will be signed by
42 the CBFWA Executive Director to ensure that the FPC opinions reflect the consensus actions of the
43 region's fish and wildlife agencies and the Columbia River Basin Indian tribes."

1
2 **Draft:** With regard to the tasks assigned to the Fish Passage Manager, the Council
3 modified the recommendation and proposed the following revision to Section 5.1B.1:

4
5 Fund the establishment and operation of a Fish Passage Center, including funds for
6 a fish passage manager position, technical and clerical support and the services of
7 consultants when necessary, as jointly agreed by Bonneville and the fish and wildlife
8 agencies and tribes. This support will assist the fish passage manager in:

- 9
10 1) **ensuring that both anadromous fish and resident fish and wildlife are**
11 **protected, mitigated and enhanced;**
12
13 2) planning and implementing the annual smolt monitoring program;
14
15 3) developing and implementing flow and spill requests;
16
17 4) **coordinating storage reservoir and river operations and evaluating potential**
18 **conflicts between anadromous and resident fish to ensure that operating**
19 **criteria for storage reservoirs are met when considering system**
20 **operational requests;**
21
22 5) **identifying when conditions allow for operations in excess of minimum**
23 **objectives and criteria, so that this situation can be brought to the**
24 **attention of relevant decision makers to allocate the operational**
25 **flexibility to maximize benefits for anadromous fish, resident fish and**
26 **wildlife;**~~and~~
27
28 6) monitoring and analyzing research results to assist in implementing the water budget
29 and spill planning and in preparing reports; **and**
30
31 7) **monitoring and analyzing monitoring and research data to assist in**
32 **implementing storage reservoir operating criteria and to better provide**
33 **for the needs of resident fish and wildlife.**
34

35 With regard to the recommended language for Section 5.1B.2, the Council included the first
36 sentence and not the second in the draft rule. In other words, the Council proposed to add the
37 following sentence to the section: "The fish passage manager will be selected by members of the
38 Columbia Basin Fish and Wildlife Authority and report to the Authority's Executive Director."
39

40 This recommendation overlapped in part a recommendation from the Colville Confederated
41 Tribes to create a Storage Reservoir Center to be assigned the responsibility for ensuring that
42 reservoir operating criteria for resident fish and wildlife are satisfied during the planning and
43 implementation of salmon migration flow augmentation as well as other tasks related to monitoring,

1 analysis and data collection. See Recommendation No. 95-2/0043, proposing an addition to
2 Section 10. While the two recommendations were not necessarily mutually exclusive -- it is
3 possible to have a Storage Reservoir Center as recommended by the Colville Tribes that performs
4 certain functions while at the same time the Fish Passage Center incorporates resident fish concerns
5 into salmon migration planning and management -- to implement both fully would call for redundant
6 actions. Under the UCUT Tribes' recommendation, the Fish Passage Center would have to ensure
7 that anadromous fish flow implementation takes into consideration the needs of resident fish and
8 meets the established operating standards to protect those fish, which is what the Storage Reservoir
9 Center would be doing. To avoid this redundancy, and to avoid having to create and fund a new
10 and competing institution, the Council chose in the draft rule to propose assigning these
11 responsibilities to the existing institution -- the Fish Passage Center -- and also assigned to the Fish
12 Passage Center the monitoring and analysis tasks that the Colville Tribes envisioned having the
13 Storage Reservoir Center perform. Thus the resulting draft revised Section 5.1B.1 is actually a
14 hybrid or composite of the two recommendations, with additional language added by the Council.
15

16 **Comment:** The UCUT Tribes supported the amendments proposed to alter the operations
17 of the Fish Passage Center, which should make the program more consistent with Section
18 4(h)(1)(A) of the program. It will give the Center something to do, since it no longer manages the
19 water budget. The Tribes strongly support the additional sentence proposed for Section 5.1B.2, to
20 require the Center's manager be selected by CBFWA members and report to the CBFWA
21 director. That is not currently the case, as the Center's contract goes through the PSMFC, and thus
22 the CBFWA members have no formal control over the Center and thus it does not represent the
23 collective viewpoint of the agencies and tribes. (174, 196)
24

25 The Montana Department of Fish, Wildlife and Parks commented in support of the Fish
26 Passage Center amendments. (186 202).
27

28 The Confederated Salish and Kootenai Tribes supported the Fish Passage Center
29 amendments as well, but noted that if the Center is going to be asked to develop expertise
30 concerning the upriver reservoirs and perform these new functions, the Center would require an
31 increase in money and staffing, and yet there may be no need to develop within the Center this level
32 of expertise if a better system could be developed for having the Center receive, incorporate and
33 follow the recommendations of the upriver managers with the necessary expertise. (186)
34

35 The Columbia River Inter-Tribal Fish Commission commented that if the proposed
36 amendment to expand the Fish Passage Center's responsibilities to address resident fish concerns is
37 adopted, it must not be at the expense of the anadromous fish functions presently carried out by the
38 Center. CRITFC recommends the Council adopt language ensuring that if resident fish
39 responsibilities are added to the Fish Passage Center's duties, those responsibilities will not diminish
40 the Center's anadromous fish duties and are contingent upon adequate funding by Bonneville.
41 CRITFC also commented generally that the Council's program should give priority to measures that
42 harmonize anadromous and resident fish needs (such as the Pend Oreille lake level measures that

1 allow for summer flow augmentation for anadromous fish and higher winter elevations for resident
2 fish) and not measures that exacerbate conflicts. (233)

3
4 The Oregon Department of Fish and Wildlife commented that it is premature to specify
5 additional support tasks or an administrative structure for the Fish Passage Center as proposed in
6 the amendments to address resident fish-related issues given that CBFWA is conducting an audit to
7 assess the appropriate functions, organization, structure, and administration for the Center. ODFW
8 also noted, along with CRITFC, that the additional tasks proposed in the amendment would require
9 substantial increases in both staffing level and operating budget. (234)

10
11 Bonneville stated that it supported seeking greater accountability of the Fish Passage Center
12 to CBFWA and to all the fish agencies and tribes, noting among other things the already greatly
13 increased responsibilities exercised by the Center. Bonneville also noted that this amendment (like
14 the preceding amendment) addresses trade-offs between flows needed for anadromous fish and
15 reservoir elevations and water retention times needed to protect resident fish and wildlife. “How
16 have the findings of the Biological Opinion, Draft Recovery Plan, and the System Operations
17 Review Draft Environmental Impact Statement (SOR DEIS) preferred alternative been addressed in
18 these sections? Are they consistent? What conflicts need resolution?” Bonneville commented
19 generally in support of integrated planning and operations to benefit fish and wildlife to the greatest
20 degree possible in part to reduce detrimental impacts to resident fish. The standard for program
21 integration should be the best overall benefit for fish, not specific flow volumes or budget levels or
22 equal impacts between resident and anadromous fish. (128, 146, 229)

23
24 The Bureau of Reclamation supported in general the concept of integrating planning and
25 implementation of anadromous fish and resident fish and wildlife measures, to minimize impacts from
26 salmon flow measures and to capitalize on opportunities to enhance resident fish conditions with
27 salmon flows. But Reclamation noted that specific recommendations for reservoir criteria,
28 especially the recommended water retention times and reservoir elevations at Grand Coulee Dam
29 and, possibly, the integrated rule curves at Hungry Horse and Libby dams conflict with the National
30 Marine Fisheries Service’s 1995 Biological Opinion concerning salmon flow needs. Thus
31 Reclamation welcomed new ideas on how to integrate the needs of anadromous and resident fish,
32 but expected the Council to carefully evaluate specific proposals. (143, 206)

33
34 The National Park Service, Coulee Dam Recreation Area, generally supported proposals
35 “calling for greater environmental protection for resident fish and wildlife habitat, particularly in
36 Eastern Washington,” including water planning and management measures. “A defined process and
37 coordinating body is needed to ensure that resident fish and wildlife requirements become and
38 continue to be part of overall and long-term Columbia River Basin planning and operations.” The
39 Park Service supported a “Council policy that requires evaluation of anadromous fish measures, at
40 all stages, in full consideration of the effects on resident fish and wildlife. This could include a
41 “reservoir-specific process to coordinate and track storage reservoir operations during critical
42 anadromous fish migration periods.” (228)

1 The Corps of Engineers commented that the recommended sentence for Section 5.1B.2
2 stating that “all correspondence from the Fish Passage Center will be signed by the Authority's
3 Executive Director to ensure . . .” (which was not included in the draft rule, but was in the
4 appendix), be revised to state that “[a]ll correspondence and reports from the Fish Passage Center
5 will be reviewed by the Authority’s Executive Director to ensure” (224)
6

7 The Western Montana Electric Generating and Transmission Cooperative commented that
8 all funding for the Fish Passage Center should be eliminated. The Center has repeatedly refused to
9 supply data resulting from research funded through Bonneville programs and has resisted attempts
10 to be required to provide justification for the water releases it has requested. Further, the primary
11 function of the Fish Passage Center has been supplanted by the National Marine Fisheries Service,
12 which now controls reservoir operations. Also, NMFS and the region have moved to a flow target
13 approach, rather than the “historical approach of shaping volumes of water.” The flow target
14 approach eliminates the function the Center performed. The Center’s data gathering function “could
15 be put to an open and public bidding process to assure the lowest cost and a publicly accountable
16 contractor” (221). The Public Utility District No. 1 of Okanogan County stated that it agreed with
17 the comments of WMG&T in this rulemaking. (222)
18

19 Seattle City Light commented generally in support of efforts to integrate planning and
20 operations for anadromous fish and resident fish and wildlife. (141)
21

22 The American Fisheries Society, Oregon Chapter, generally agreed that “[r]eservoir
23 management should be made in context with the regional needs for managing anadromous and
24 resident fish,” the Society also emphasized that “[i]mpacts on reservoir fisheries that center on non-
25 native species should be secondary to recovery strategies for anadromous fish.” (199)
26

27 Oregon Trout opposed proposals that could limit water managers’ flexibility and thus
28 adversely affect efforts to recover endangered species, especially if the changes and limits in water
29 management are intended to benefit resident hatchery fish populations and non-native species.
30 (168, 209)
31

32 The Oregon Natural Resources Council commented that the distinction between native and
33 non-native species is more important than between anadromous and resident fish, and that the
34 conflict between anadromous and resident fish is not inherent but human-caused; before humans
35 radically altered the ecosystem, anadromous and resident fish co-existed in the basin. The Council
36 should not accept the necessity for trade-offs between anadromous and resident fish, but instead
37 should actively seek and give preference to water management and other solutions that benefit all
38 native species (such as removing the lower Snake dams to benefit anadromous fish without the
39 seasonal impact on resident fish and wildlife). (231)
40

41 A representative with the Sierra Club and Save Our Wild Salmon commented generally that
42 they had emphasized over the last few years that drawdowns of the lower Snake River and John
43 Day reservoirs in the salmon migration corridor have the prospect of improving the flows and river

1 conditions for salmon without requiring the huge amounts of flow augmentation that horribly impact
2 resident fish in the upriver storage reservoirs. (174)

3
4 As noted in the summary of comments on the preceding recommendation, a number of
5 individual commentors supported efforts (in general or in response to specific problems or
6 recommendations) to limit salmon flow augmentation and curtail upriver reservoir drawdowns and
7 reservoir level fluctuations, criticizing the impacts of flow augmentation on productive resident
8 fisheries, reservoir biology, recreation, and/or local economies. Commentors included Al
9 Stangland, Edwall, Washington; J.A. Boswell, Cheney, Washington; Dr. and Mrs. Jerry McKellar,
10 Colville, Washington; Tracy R. Parr, Spokane Washington; Jim Scribner, Davenport, Washington;
11 and Gary Fields, Nine Mile Falls, Washington. (164, 171, 175, 179-81) And, a number of
12 individual commentors objected (in general or with regard to specific proposals) to
13 recommendations that would adversely affect native anadromous fish by reducing the flows needed
14 for juvenile salmon migration, especially if the resident fish to be benefited are non-native fish
15 species such as rainbow trout, walleye, perch and bass. Commentors included Bhagwati Poddar
16 and Saradell Poddar, Astoria, Oregon; Everett Peterson, Roseburg, Oregon; Richard Hardin,
17 Grants Pass, Oregon; Sue Knight, Portland, Oregon; Scott Bischke, Corvallis, Oregon; and Steven
18 M. Bruce, Boise, Idaho. (162, 165, 173, 182, 201, 211)

19
20 **Findings:** The Council adopted the draft rule language with minor modifications. The
21 Council thus adopted the recommendation in substance, with modifications to incorporate ideas
22 raised in the Colville Tribes' separate recommendation for a storage reservoir center (see the
23 discussion under "draft" above), and to clarify and expand the modes of accountability for the Fish
24 Passage Center.

25
26 Under the statement of its revised operations, the Fish Passage Center will both call for river
27 operations to protect salmon and steelhead migration and implement storage reservoir operating
28 criteria in the program for resident fish and wildlife -- the Center is to integrate these project criteria
29 into an overall systems operation. The Center will continue its smolt and water budget monitoring
30 program, but also monitor implementation of the storage reservoir criteria. In modifications from the
31 draft rule, the Council made explicit that the Fish Passage Center should implement the program's
32 water budget, spill and flow criteria and the program's reservoir storage criteria. The Center is
33 authorized by the Council to help implement the Council's program.

34
35 The Council also adopted the recommendation for explicit language calling for the manager
36 of the Center to be selected by the members of the Columbia Basin Fish and Wildlife Authority and
37 report directly to the Authority's Executive Director. The comments overwhelmingly supported
38 adding this level of direct accountability of the Center to the organization that incorporates the
39 interests of fish and wildlife managers throughout. The Council declined to add language requiring
40 that all correspondence from the manager be signed by the CBFWA Executive Director, a
41 requirement that seems designed to hamstring the manager and impose an enormous burden on the
42 Executive Director. The manager of the Center will be directly hired by and accountable to the
43 members of CBFWA and the Director. The CBFWA members and the Director should work out

1 the working details of the relationship, rather than have the Council dictate these points. This
2 language should be sufficient to ensure that the Center's opinions reflect the consensus views of the
3 region's managers and tribes.
4

5 The Council did see a need for a different type of public accountability, the kind that comes
6 with a public airing of issues that arise from operations. Thus the Council added language to make
7 sure that the Council and the public are at least annually apprised by the manager and the CBFWA
8 Director of issues raised by others concerning the Center's operations.
9

10 Unlike the UCUT Tribes and the Western Montana Generating and Transmission
11 Cooperative and Public Utility District No. 1 of Okanogan County, the Council believes that the
12 Fish Passage Center still has an important function. The Council's program has not switched to a
13 purely flow target basis, eliminating the need for a Fish Passage Center to call for releases from a
14 water budget volume. The Council's program is a mix of volumes and flow objectives, as well as
15 spill criteria and other criteria for salmon and steelhead migration, and the storage reservoir
16 operating criteria, various parts of which are to be implemented in a flexible way to ensure that river
17 and reservoir operations in any given year match the fish needs of that year. The Fish Passage
18 Center is needed to perform these real-time operational functions, and to conduct corresponding
19 monitoring programs. The key point is to make the Center more accountable to the region, and thus
20 open up these functions to better institutional and public access.
21

22 A number of commentors, especially the Confederated Salish and Kootenai Tribes and the
23 Columbia River Inter-Tribal Fish Commission, while recognizing a need to better integrate
24 implementation of river and reservoir criteria to protect both anadromous fish and resident fish and
25 wildlife, were concerned that adding functions to the Center would require greater staffing and
26 funding of the Center, drawing more from the strained budget, or would paralyze the Center if
27 funding and staffing were not added. The Council recognizes this problem. There may be no way
28 to add these functions to the Center without giving the Center additional staffing and funding to carry
29 them out. The upriver interests have a reasonable policy goal in ensuring that their concerns are
30 integrated into daily operations, but this cannot be done without some cost. One of the reasons the
31 Council chose to add the storage reservoir criteria function to the Fish Passage Center, instead of
32 creating a new storage reservoir center as recommended by the Colville Tribes, was to avoid the
33 costs of a completely new center -- it is hoped that the Fish Passage Center can integrate these
34 functions at lesser expense. The Council also expects that in the implementation of this measure, the
35 fish managers and the Center make every possible use of existing expertise and institutional
36 arrangements in the upper part of the basin to implement and monitor the storage reservoir criteria
37 (e.g., relying on the existing activities and expertise of the Montana Department of Fish Wildlife and
38 Parks and the Confederated Salish and Kootenai Tribes and the other agencies in Montana to help
39 the Center monitor and implement Hungry Horse and Libby rule curve operations and the activities
40 and expertise of the Colville Confederated Tribes and the Spokane Tribe to help the Center monitor
41 and implement the Grand Coulee operating criteria.)
42

1 A number of comments expressed concern that consideration of resident fish and wildlife
 2 measures would detract from measures provided for salmon migration, while others commented that
 3 implementation of salmon migration measures needs to be curtailed due to adverse impacts on
 4 resident fish in the reservoirs and streams in the upper part of the basin. As explained at the
 5 conclusion of the finding on the previous recommendation, the Council is charged with protecting,
 6 mitigating and enhancing anadromous fish and resident fish and wildlife throughout the system. The
 7 Council has received recommendations for river and reservoir operations primarily intended to
 8 benefit juvenile salmon migration, and recommendations for reservoir constraints primarily intended
 9 to benefit resident fish and wildlife. The Council has analyzed recommended operating criteria in
 10 part to estimate whether the impacts would be adverse to other parts of the system, and has
 11 adopted river and reservoir operating criteria after these analyses. And the Council has called for a
 12 planning and implementation process to integrate these criteria in system operations. With the
 13 assistance and recommendations of the region's fish and wildlife managers, in this rulemaking
 14 process and in the anadromous fish program amendments in December 1994, the Council believes
 15 it has fulfilled its statutory mandate to protect, mitigate and enhance both anadromous and resident
 16 fish .

17
 18
 19
 20 **Program Section(s): 5.1D.2 (rules for flow augmentation)**

21 Source: Confederated Salish and Kootenai Tribes

22 Recommendation No.: 95-2/0040

23 Source: Kalispel Tribe of Indians

24 Recommendation No.: 95-2/0082

25
 26 **Recommendation:** The Confederated Salish and Kootenai Tribes recommended
 27 adjusting the priority list for competing uses of the hydropower system in Section 5.1D.2 as follows:

28
 29 First Firm power
 30 Second ~~Reservoir refill~~ ~~Water budget and other flow measures~~
 31 Third **Water budget and other flow measures and reservoir constraints** ~~Reservoir~~
 32 ~~refill~~
 33 Fourth Secondary energy generation

34
 35 The Tribes also recommend adding a number of new guidelines for flow augmentation to
 36 Section 5.1D:

- 37
 38 • Water budget releases should be prioritized to release first water stored nearest to the
 39 affected fish.
 40
 41 • Measuring of the water budget will be based on (1) Columbia River forecasts measured
 42 at Priest Rapids Dam and (2) Snake River forecasts measured at Ice Harbor Dam.
 43

- 1 • Anadromous fish flows are to be based on a volume approach. The volume will be
2 explicitly stated as a discrete known volume. Location and use sequence for stored
3 water volumes will be specified.
4
- 5 • A water accounting method for anadromous fish flows will be completed by the end of
6 1995.
7
- 8 • All measures that call for flood control shifts will be expressly defined in terms of the
9 range of volumes shifted and locations and/or methods to absorb these shifts.
10
- 11 • The Council will look at Snake River irrigation water in the same context as other
12 volumes in the water budget program. Willing buyer/seller of water will be applied
13 equitably in the Columbia River Basin.
14
- 15 • At the in-season management meetings that address salmon flows, decisions made will
16 allow no damage to resident fish and wildlife.
17
- 18 • Monitoring and evaluation plans and biological objectives for all adaptive management
19 measures will be in place prior to implementation of these measures.
20
- 21 • The Council shall produce a risk/benefits assessment of all anadromous fish measures to
22 determine their impact on resident fish and wildlife. This assessment shall include both
23 U.S. and Canadian storage facilities.
24

25 The Kalispel Tribe submitted the same recommendation with two exceptions: (1) The
26 Kalispel Tribe's recommendation did not contain the reference to Snake River forecasts at Ice
27 Harbor. (2) The recommendation did not contain the reference to U.S. and Canadian reservoirs.
28

29 **Draft:** Not included in the draft. The slightly more extensive recommendation from the
30 Salish-Kootenai Tribes was included in the draft rule appendix "Other Amendment
31 Recommendations On Which the Council Specifically Invites Comment."
32

33 **Comment:** The Montana Department of Fish, Wildlife and Parks supported the
34 recommended operating rules for flow augmentation. "We believe the prioritization proposed is
35 appropriate. We also support the establishment of a water accounting method for anadromous
36 flows as well as flows proposed for other operating purposes." (202).
37

38 The Oregon Department of Fish and Wildlife commented that the priority revisions and
39 various proposed changes to the flow augmentation operating rules do not reflect Oregon's
40 management priorities for anadromous and resident fish, given the crisis status of anadromous fish,
41 and should not be adopted. (234)
42

1 The Corps of Engineers questioned the validity of using a new approach to measuring the
2 water budget, based on “Columbia River forecasts at Priest Rapids and Snake River forecasts at
3 Ice Harbor”. The current approach is to meet designated flow targets at Lower Granite and
4 McNary dams. The rationale for the recommended change is not clear. (224)

5
6 Seattle City Light commented in support of the portion of this recommendation calling for
7 monitoring and evaluation systems to be in place prior to implementation of any measure. (141)

8
9 See above for other comments generally concerning the relationship between anadromous
10 fish water measures and protection of resident fish and wildlife.

11
12 **Findings:** The Council adopted part of the recommendation. The Council added
13 “reservoir constraints” to the existing priority for the “water budget and other flow measures.” The
14 Council intends by this action to reflect that the reservoir constraints in the program (i.e., the
15 integrated rule curves at Hungry Horse and Libby dams, the operating constraints at Grand Coulee
16 Dam, and the minimum lake levels at Lake Pend Oreille) are to receive the same degree of
17 consideration in implementation as the water volume and other flow measures for juvenile salmon
18 migration.

19
20 To explain more fully, by “water budget and other flow measures,” the Council means the
21 measures in Section 5 of the program adopted to increase the river flows for juvenile salmon
22 migration. The Council calls for flow augmentation by specifying water volumes to be dedicated to
23 flow augmentation and by specifying reservoir draft criteria intended also to release water volumes
24 for flow augmentation. The Council has called for these flow measures to be incorporated into firm
25 power planning and implemented in every year; that is, they are to be considered to be a hard
26 constraint on system operations. The specified water volumes for flow augmentation are part of a
27 broader strategy to meet operational objectives for salmon migration (which are to be distinguished
28 from the flow “measures”), described as average minimum monthly flow equivalents for the lower
29 Snake and Columbia Rivers . To meet these flow objectives, the Council has called for, in addition
30 to the water volumes identified for flow augmentation, operational and structural changes in the
31 dams and reservoirs (e.g., flood control shifts, lower-river reservoir operating levels, structural
32 changes to permit even lower operating levels), water conservation and other efficiencies and water
33 transactions to secure more water for flows, negotiations to secure more water if possible from
34 Canadian storage, research into changes in power system operations and other types of research,
35 and other efforts. See Sections 5.2, 5.3 and 5.4.

36
37 The Council also has adopted specified operating criteria and constraints for upper-river
38 dams and reservoirs to protect, mitigate and enhance resident fish and wildlife populations, including
39 integrated rule curves at Hungry Horse and Libby dams, minimum reservoir levels and water
40 retention times at Grand Coulee Dam, and minimum winter reservoir levels at Lake Pend Oreille.
41 These reservoir operating criteria and constraints are also to be incorporated into firm planning and
42 implemented in every year, and are also to be considered hard constraints on system operations.
43 Meeting these reservoir criteria and constraints is just as important as implementing the specified

1 water volumes and other flow measures for juvenile salmon migration; they are to be considered to
2 be of equal priority in the operation of the system.

3
4 The obvious question is what is to happen if these measures of equal priority conflict in any
5 particular year -- if system planning indicates that it may not be possible in that year to implement
6 the salmon migration flow measures (e.g., deliver the specified water volumes) without violating one
7 or more of the reservoir constraints, or vice versa. First, the Council's river and reservoir analyses
8 in this rulemaking and in the last indicate that conflicts should not occur as often as commentators
9 seem to believe that in most years the system should be able to achieve the water volumes and other
10 flow measures and meet the reservoir constraints.

11
12 Second, in years when potential conflicts are identified, the fish managers and river and
13 reservoir operators are not to presume that one measure or set of measures has automatic priority
14 over the other; this is the meaning of the Council's decision to call the water and other flow
15 measures and the reservoir constraints of equal priority. The fish managers throughout the system
16 and the river operators are to consult and work together (through the Fish Operations Executive
17 Committee and through the work of the Fish Passage Center, which is intended to be responsive to
18 the views of all the fish managers, see Sections 5.1A and 5.1B) to optimize system operations to
19 meet the specified flow measures and reservoir constraints to the fullest extent possible. If it is still
20 not possible to meet in full the flow measures and the reservoir constraints, the river operators and
21 fish managers are to use the dispute resolution mechanisms of FOEC and recommend to the
22 Council for decision the best mix of operations at that particular time to best meet the needs of
23 anadromous and resident fish, within the framework of the water volumes and other flow measures
24 and the reservoir limitations established in this program. See Sections 5.1A (FOEC) and 5.1B
25 (Fish Passage Center) and the findings for those sections above.

26
27 Third, the Council calls for the region to continue to make changes in the hydroelectric
28 system so that the specified flow measures and the reservoir constraints are more achievable in
29 every year, to minimize the need for, or the impacts of, tradeoffs. Also, the Council is committed to
30 monitoring the effects of the current and additional survival improvements, and to documenting their
31 biological and cost effectiveness.

32
33 The discussion above concerns the relationship between the program's water volume and
34 other flow measures and the reservoir constraints. The role of the program's operational flow
35 objectives for juvenile salmon flow migration is somewhat different. The water volume and other
36 flow measures (e.g., flood control shifts, currently achievable changes in the operating levels of the
37 lower river reservoirs, etc.) are to be implemented as part of the effort to meet these flow
38 objectives, and it is the flow "measures" that are to be considered of equal priority to the upper river
39 reservoir constraints, not the flow objectives themselves. This is because the Council's strategy for
40 meeting operational objectives for anadromous fish is multi-faceted: The program authorizes the use
41 of significant, specified volumes of water to that end. But the Council also recognizes that the water
42 volumes and other currently implemented flow measures to increase flow augmentation and flows
43 are not sufficient in many years to meet the flow objectives. As specified in the program, achieving

1 the operational flow objectives in a consistent fashion will require the implementation of other, not-
2 yet-implemented flow measures, such as drawing down reservoirs at projects through which
3 anadromous fish migrate, augmenting streamflows through water transactions in the U.S. and
4 Canada, water conservation, new storage, re-evaluation of flood control operations, and other
5 measures.
6

7 The Council has adopted these flow and reservoir measures, and the specific statement on
8 priority in this section, because the Council believes these are necessary to protect, mitigate and
9 enhance fish and wildlife throughout the system affected by the development, operation and
10 management of hydropower facilities and can be implemented while assuring the region an
11 adequate, efficient, economical and reliable power supply (see Section 1.8 and Appendix C,
12 Assuring an Adequate, Efficient, Economical and Reliable Power Supply and the Ability to Carry
13 Out Other Purposes of the Power Act, and the findings on the matter of an adequate, efficient,
14 economical and reliable power supply at the beginning of these findings).
15

16 The Council recognizes that the National Marine Fisheries Service, in its 1995 Biological
17 Opinion for operation of the hydropower system and in its proposed salmon recovery plan, has not
18 adopted the reservoir constraints that are in the Council's program. As the Council has noted many
19 times, its obligations under the Northwest Power Act are not the same as NMFS' under the
20 Endangered Species Act. The Council must give as much attention to protecting and mitigating non-
21 listed resident fish (and anadromous fish) as to the listed salmon runs. On this basis it is not
22 surprising that the Council and NMFS might reach a different conclusion as to the preferred mix of
23 changes needed to the hydropower system. Based on the information the Council has gathered in
24 rulemakings over the last few years and by its own staff analyses, the Council believes that it is
25 possible to make significant operational and structural changes in the hydrosystem that will allow the
26 system to protect and increase the survival of anadromous fish and resident fish dependent on the
27 headwater rivers and reservoirs, that one type of fish need not be sacrificed to the other. The
28 Council and NMFS may continue discussions and share analyses in an attempt to find solutions that
29 are comparable while allowing both NMFS and the Council to fulfill their statutory mandates.
30

31 The Council also understands that the region's fish and wildlife managers are engaged in on-
32 going discussions in an attempt to reach a consensus on river and reservoir operations. The Council
33 may revisit these types of issues after the fish and wildlife managers report to the Council.
34

35 The Council declined to adopt the other portions of the recommendation, including the array
36 of flow augmentation guidelines recommended. While not every recommended change would be
37 significant (or even new -- Section 2.2E.1 already calls for the development of a water accounting
38 system by the end of 1995), these recommended amendments as a whole could have resulted in
39 significant changes in the Council's anadromous fish program. For example, one added guideline
40 would state that the Council is committed to a "volume" approach to the anadromous fish flows.
41 This would be inconsistent with the combined water budget volume and flow objective approach in
42 the Council's program, which was the product of the recommendations of at least the lower river
43 agencies and tribes in the 1994 rulemaking. To adopt the recommended language would have

1 required changing most of existing Section 5. To the extent that the recommendation seeks only a
2 "maximum" volume approach, the Council's program already operates in that fashion, as described
3 above. Similar complications would arise from adopting the recommendations, for example, to
4 revise the order of the priorities for the hydropower system, establish a priority for releasing water
5 from reservoirs closest to the affected fish; or change the point of measurement of the water budget
6 (the Corps of Engineers commented in opposition to this idea).

7
8 With regard to the recommended guideline to "look at Snake River irrigation water in the
9 same context as other volumes in the water budget," the recommendation did not make completely
10 clear what this guideline was intended to mean. The recommendation did add, as an accompanying
11 guideline, that the Council should apply "equitably" throughout the basin the acquisition of additional
12 water for the needs of fish through a willing buyer/willing seller approach. In Sections 5.2A.3 and
13 5.2D, the Council calls for Bonneville, the Bureau of Reclamation, the states and others to acquire
14 additional water for Snake River flows for salmon migration and fish habitat in part through willing
15 seller/willing buyer arrangements with irrigation water users and other water users. The Council
16 already encourages the pursuit of cost-effective willing buyer/willing seller transactions throughout
17 the basin, consistent with state laws. See, e.g., Section 7.8G.2 (calling on Bonneville to fund
18 acquisition of critical water rights for salmon habitat). Outside of the Snake basin, the Council has
19 also adopted specific recommendations to use water transactions to provide additional water for
20 tributary and mainstem flows. See, e.g., Section 7.8G.4 (Yakima basin water leasing demonstration
21 project, based on a recommendation from the Environmental Defense Fund and the Bureau of
22 Reclamation). While the Council has not received and thus has not adopted any other specific
23 recommendations on this issue, all willing buyer/willing seller opportunities in the basin that
24 potentially benefit the region's fish and wildlife resources in a cost-effective manner should be
25 considered.

26
27 As illustrated by the comments of the Oregon Department of Fish and Wildlife, and the
28 recommendations of the fish agencies and tribes in the anadromous fish rulemaking, there is no
29 consensus among the fish managers over the other proposed changes. The Council understands
30 that the purpose of the recommendation is to better protect resident fish and wildlife communities,
31 especially in the upper Columbia, from impacts associated with operations for anadromous fish
32 flows. The Council has responded to these concerns by other amendments (in this rulemaking and
33 the last) that, among other measures, adopt the integrated rule curves for Hungry Horse and Libby
34 dams; adopt the recommended reservoir elevations and water retention times at Grand Coulee
35 Dam; call for the development of biological and integrated rule curves at Grand Coulee and
36 Dworshak dams; integrate reservoir criteria and resident fish and wildlife concerns into the planning
37 and implementation actions of the FOEC and the Fish Passage Center; and adopt a budget
38 allocation formula that ensures that resident fish and wildlife receive a significant portion of the
39 project budget. If these measures are implemented, they should provide the resident fish and
40 wildlife protection desired by the upriver tribes without the need for the recommended changes to
41 the flow augmentation operations.

42

1 On this record, the Council rejected these recommendations as less effective than what has
2 been adopted in ensuring the protection, mitigation and enhancement of fish and wildlife, 16 U.S.C.
3 §839b(h)(7)(C), and because the Council considers what it has adopted better complements the
4 activities of all the region's federal and state fish and wildlife agencies and Indian tribes, 16 U.S.C.
5 §839b(h)(6)(A), (7)(B).

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8
9 **Program Section(s): 5.4A (Columbia spring flows)**
10 Source: Confederated Salish and Kootenai Tribes
11 Recommendation No.: 95-2/0040

12
13 **Recommendation:** In Section 5.4A, the Confederated Salish and Kootenai Tribes
14 recommended striking the words "at least" from the directive to "provide at least 4 million acre-feet
15 of water" for spring migrants in the Columbia.

16
17 **Draft:** The Council modified the recommendation in the draft rule to revise Section 5.4A
18 to read as follows:

19
20 Through firm power planning, provide 58 thousand cubic feet per second per month (3.45
21 million acre-feet) of shapeable water. In addition, provide ~~up to at least~~ 4 million acre-feet of
22 water, subject to conditions specified below. **Add to the 4 million acre-feet any water from**
23 **Canadian storage reservoirs that can be dedicated to anadromous fish flows as a result**
24 **of the renegotiation of the Non-Treaty Storage agreement and any** ~~Also provide~~
25 additional water obtained from Canadian storage reservoirs through U.S. State Department
26 discussions with Canada.

27
28 The recommendation precisely as submitted was included in the draft rule appendix "Other
29 Amendment Recommendations On Which the Council Specifically Invites Comment."

30
31 **Comment:** Bonneville objected to this amendment, stating that the language is unclear. To
32 begin, it is unclear whether Bonneville is being asked to act under the 1990 Non-Treaty Storage
33 Agreement, which is due to expire in 2003, or to renegotiate the NTSA. If the latter, there is no
34 additional storage to be gained from negotiations. Bonneville obtained the maximum amount of
35 shared storage possible in the NTSA, which makes available 2.25 million acre feet (maf), half the
36 available non-treaty storage, as an opportunity resource that can be used to fulfill any of Bonneville
37 statutory purposes, including fish flows. And in practice, Bonneville has used its share of NTSA
38 storage almost exclusively for fish flows. There is no need to dedicate this storage to fish flows
39 because the existing dedication allows for that use. (229)

40
41 The UCUT Tribes commented that this amendment is unclear to them. (174)

1 In a comment directed more at the section as a whole that at the amendment, the Colville
2 Confederated Tribes stated that this section is unclear and questioned whether the Council's intent is
3 to add 55,000 acre feet (af) to the base water budget of 3.45 maf or to add an additional 4 maf to
4 the base of 3.45 maf. (226)

5
6 **Findings:** The Council modified its draft rule language to more clearly state its intent.
7 Section 5.4A is intended to be a performance standard describing spring anadromous fish flow
8 operations in the Columbia River, based on and reflecting specific measures in Section 5.4 related
9 to spring migrants. Sections 5.4A and 5.4D call for, among other things, 3.45 maf of water to be
10 provided in every year (Section 5.4A.2), up to another 4 maf depending on the year-to-year runoff
11 forecasts (Section 5.4A.3 and Figure 5-2), and discussions with Canada to secure the use of
12 additional water for flow augmentation if possible (Section 5.4D.5). This last provision must be
13 seen in the context of the fact that the river managers already use some water stored in Canadian
14 projects to make up part of the 3.45 maf plus up-to-4 maf water budget. The purpose of Section
15 5.4D.5 is to find out if more of the storage capacity in the Canadian reservoirs can be dedicated to
16 anadromous fish flows, and if so, to add that water to the water budget.

17
18 The performance standard language of Section 5.4A is intended to summarize and
19 correspond to these provisions. The original 1994 version of Section 5.4A was confusing, and the
20 "at least" language especially created a concern by many that the 3.45 maf plus up to an additional 4
21 maf was not the maximum volume that could be taken at present and that U.S. storage reservoirs
22 might be tapped for an indeterminate amount above the 4 million acre-feet to meet the Council's
23 Columbia flow objectives. Instead, the Council's intent in adding the words "at least" was simply to
24 reflect and allow for the possibility of adding to the 4 million acre-feet any additional water gained
25 for fish flows from discussions with Canada. The Council did not intend by this language to allow for
26 more than the 7.45 maf total to be called for at present or for more to be taken from U.S. reservoirs
27 above the specified volume. The Council has now revised the language of Section 5.4A to make its
28 intent clear.

29
30 The Tribes' recommendation would have simply struck the words "at least" from Section
31 5.4A. The Council modified the recommendation to make its program more accurate in its
32 description of what the measures in Section 5.4A and 5.4D call for.

33
34
35
36 **Program Section(s):** **5.4B.3 (Grand Coulee drafting)**

37 **Source:** UCUT Tribes (Spokane Tribe, Coeur d'Alene Tribe, Kalispel Tribe,
38 Kootenai Tribe)

39 **Recommendation No.:** 95-2/0078
40

41 **Recommendation:** The UCUT Tribes recommended deleting this section, added during
42 the December 1994 anadromous fish rulemaking and calling on Grand Coulee to draft to elevation
43 1280 by the end of August if consistent with a water retention limitation inserted in Section 10.3E.3.

1
2 **Draft:** Included in the draft rule.

3
4 **Comment:** Comments concerning operations of Grand Coulee Dam are summarized
5 below, at the findings for Section 10.3E.3.

6
7 **Findings:** The Council deleted this section as recommended. The UCUT Tribes and the
8 Colville Tribes proposed a significant revision in Grand Coulee operations in recommended
9 amendments to Sections 10.3E.3 and 10.8, discussed below. Existing Section 5.4B.3 was not
10 consistent with the proposed operating regime at Grand Coulee, and so the UCUT Tribes
11 recommended its deletion. The substance of these recommendations and of the Council's decision
12 with regard to the Grand Coulee operating criteria are discussed below in the findings on Section
13 10.3E.3. The deletion of Section 5.4B.3 does not mean that Grand Coulee ceases to play a role in
14 anadromous fish flow operations, only that those operations are to be consistent with the reservoir
15 operating criteria adopted in Section 10.3E.3.

16
17
18
19 **Program Section(s):** **5.4D.7 (Albeni Falls Dam/Lake Pend Oreille)**

20 Source: Kalispel Tribe

21 Recommendation No.: 95-2/0077

22
23 **Recommendation:** The Council added Section 5.4D.7 to the program in the December
24 1994 anadromous fish rulemaking process, calling on the Corps of Engineers to maintain Albeni
25 Falls reservoir (Lake Pend Oreille) at a level no lower than elevation 2056 feet to provide additional
26 water for Columbia salmon flows. The Council also revised Section 10.6E, calling for the Idaho
27 Department of Fish and Game to conduct a five-year study to determine the effect of changes in
28 water level management on the kokanee population in the lake. In this process, the Kalispel Tribe
29 recommended deleting Section 5.4D.7 and substantially modifying Section 10.6E (discussed below,
30 at the findings for Section 10.6E).

31
32 **Draft:** The Council did not include the recommended deletion of Section 5.4D.7 in the
33 draft rule. The recommendation was included in the draft rule appendix "Other Amendment
34 Recommendations On Which the Council Specifically Invites Comment." Note also that the
35 Council did include the Kalispel Tribe's Section 10.6E revision in the draft rule.

36
37 **Comment:** Comments concerning the Lake Pend Oreille/Albeni Falls Dam are
38 summarized below, at the findings for Section 10.6E.

39
40 **Findings:** Rather than delete Section 5.4D.7, the Council modified the section in the final
41 rule to correspond to the amendments the Council adopted for Lake Pend Oreille operations in
42 Section 10.6E. These amendments are discussed below, in the findings for the recommendation for
43 Section 10.6E.

1
2
3
4 **Program Section(s):** **5.5A.1, 5.5A.2 (research on impacts of salmon flows on**
5 **resident fish and wildlife)**

6 Source: Spokane Tribe

7 Recommendation No.: 95-2/0079
8

9 **Recommendation:** The Spokane Tribe recommended amending Section 5.5A.1 by
10 inserting a sentence stating that the Tribe will provide the Council with information on the impacts of
11 anadromous fish flow operations on "wildlife species in and around Grand Coulee" and that this
12 information will be used in conjunction with the Spokane Tribe's efforts to develop a biological rule
13 curve at Grand Coulee for both resident fish and wildlife. Bonneville is to fund the Tribe's efforts to
14 determine the impacts of anadromous fish operations on resident fish and wildlife in and around
15 Grand Coulee.
16

17 **Draft:** Not included in the draft rule.
18

19 **Comment:** The UCUT Tribes questioned why the proposed amendments did not include
20 this recommendation from the Spokane Tribe, and sought assurances this would be covered in
21 some fashion in the program amendments. The Tribes encouraged the Council to add this
22 recommended work as a subset of the Lake Roosevelt Monitoring Program (see Section 10.8B)
23 and the development of truly integrated rule curves with wildlife components. (159, 174)
24

25 **Findings:** The Council did not amend Section 5 as recommended, but this does not mean
26 the Council rejected the substance of the recommendation. Other amendments adopted during this
27 rulemaking process encompass or allow for the work recommended by the Spokane Tribe -- an
28 evaluation of the impact of Grand Coulee operations on wildlife as part of the process of
29 development of biological rule curves for Grand Coulee. First, the draft Wildlife Plan recommended
30 by many of the wildlife managers (see Recommendation Nos. 95-2/0019, /0028, /0031, /0086,
31 /0087), which the Council has slated for refinement and adoption (see Section 11.3B), describes a
32 coordinated process whereby the wildlife managers will determine the wildlife losses and gains that
33 have resulted from the operations of the various hydropower projects. This operational loss
34 assessment process is intended to encompass recommendations for project-specific studies and
35 assessments such as this one by the Spokane Tribe.
36

37 Second, the Council adopted the UCUT Tribes' recommendation (Recommendation No.
38 95-2/0070) for an expansion of the Lake Roosevelt monitoring and evaluation program that is part
39 of the resident fish substitution section of the program (see Section 10.8B.5). This provision calls
40 on the Spokane Tribe, in collaboration with the Washington Department of Fish and Wildlife and
41 the Colville Confederated Tribes, to monitor and evaluate Lake Roosevelt biota, and to use this
42 information in a collaborative effort with other appropriate state and federal agencies in the
43 development of biologically based integrated rule curves for Grand Coulee operations to protect the

1 lake's biotic communities from the adverse effects of dam and reservoir operations for power and
2 anadromous fish benefits. The expanded monitoring and evaluation program, especially to the
3 extent it is to be used for the development of biological rule curves, should allow the Spokane Tribe
4 and others to evaluate the impact of operations on riparian and adjacent uplands and thus on the
5 "wildlife species in and around Grand Coulee."
6

7 The Council needs to coordinate the wildlife loss assessment program in Section 11 and the
8 various Lake Roosevelt study recommendations in Section 10.8, and so it chose not to add a
9 separate provision to Section 5 to respond to the Spokane Tribe's specific recommendation for a
10 wildlife evaluation at Grand Coulee. The Council rejected these recommendations as less effective
11 than what has been adopted in ensuring the protection, mitigation and enhancement of fish and
12 wildlife, 16 U.S.C. §839b(h)(7)(C), and because the Council considers what it has adopted better
13 complements the activities of all the area's fish and wildlife agencies and Indian tribes, 16 U.S.C.
14 §839b(h)(6)(A), (7)(B).
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SECTION 7: COORDINATED SALMON PRODUCTION AND HABITAT

Program Section(s): 7.1I, 7.2B, 7.2C, 7.2D, 7.6C, 7.7, 7.7A, 7.7B, 7.8D.1

Source: Upper Columbia United Tribes (Spokane Tribe, Coeur d'Alene Tribe, Kalispel Tribe, Kootenai Tribe)

Recommendation No.: 95-2/0075, 95-2/0076

Recommendation: The UCUT Tribes recommended several deletions and one addition to Section 7 as part of their larger recommendations to revise the implementation planning process and the policy framework of the resident fish program. The recommended deletions include Sections 7.1I (biodiversity institute); 7.2B (hatchery evaluations); 7.2C (partnerships in hatchery production); 7.2D, 7.2D.1, 7.2D.2 and 7.2D.3 (part of the section on improved propagation at existing facilities); 7.6C (coordinated habitat planning); 7.7, 7.7A, 7.7A.2, 7.7A.3, 7.7A.4 and 7.7A.5 (most but not all of the coordination of watershed activities); all of 7.7B (model watersheds); and part of 7.8D.1 relating to model watersheds, and inserting new language concerning coordinating watershed activities. The UCUT Tribes then recommended brief replacement language for Section 7.7A calling on state, federal and tribal fish managers to select lead entities to coordinate watershed activities in various subregions of the Columbia basin. “Coordination will ensure that these activities are consistent with the objectives of the agency and tribal subbasin plans.”

Draft: Not included in the draft rule. The recommendation was included in the draft rule appendix “Other Amendment Recommendations On Which the Council Specifically Invites Comment.”

Comment: The UCUT Tribes explained that they had recommended deletion of the various provisions in Section 7 (along with the provisions of Section 3 and the watershed and production language in Section 10.2) because these have introduced complex layers of process and numerous redundant committees that are hampering implementation and recovery. Their recommended watershed and production language substitutes the integrated system plan for reliance “on a cumbersome set of watershed committees.” The Council has had the ISP for nearly five years, and it needs no further review. The Tribes recommended deleting the watershed language in Section 7 because it duplicated what is already in the ISP. The ISP can be implemented directly through the CBFWA workplan, consulting with the Forest Service, the BLM, counties and others. Fishery managers should lead in the coordination of watershed activities because they are the implementors of these projects; “[t]he decision for what is to be done should now reside solely with the fisheries agencies and tribes, not another committee or team.” The Tribes questioned where all of the process came from in the first place, as it is not and has never been consistent with the management objectives of the agencies and tribes, the legal rights of the tribes, or the ability of the managers to protect, restore and enhance fish and wildlife. “[D]elayed implementation caused by redundant committee oversight and watershed management teams is now a principle factor in causing further decline in fisheries.” The UCUT Tribes also noted that their recommendation

1 divided the basin into ecoregions instead of states with regard to watershed issues, which makes
2 more sense ecologically. This will also focus funding in the basin and reduce the probability that
3 ratepayers will pay for activities outside the basin. (196)
4

5 The Coeur d'Alene Tribe (one of the member tribes of the UCUT Tribes) submitted
6 comments about the relationship between certain production and habitat measures in Section 7 and
7 the resident fish program in Section 10, in support of the UCUT Tribes' recommendation
8 (Recommendation No. 95-2/0076) to revise existing Sections 10.2B (natural and artificial
9 propagation) and 10.2C (comprehensive watershed management) [renumbered Sections 10.2A and
10 10.2B in this rulemaking]. With the exception of Section 7.7, the provisions in Section 7 addressed
11 by the Coeur d'Alene Tribe in these comments (and referenced in Section 10) are not the
12 provisions recommended for deletion here. Thus the comments from the Coeur d'Alene Tribe are
13 summarized below, at the findings on the UCUT Tribes' recommendation for Sections 10.2B and
14 10.2C. (178)
15

16 The Oregon Department of Fish and Wildlife supported the existing language in the Council
17 program and not the proposed deletions to Section 7. In specific comments on some of the
18 subjects recommended for deletion, ODFW noted that eliminating Section 7.2B, concerning
19 hatchery evaluations, would critically reduce the ability to objectively document hatchery production
20 needs and seek funding for remedial measures which are the complementary side of the basinwide
21 facility review and ranking directed in Section 7.2A. Section 7.2C, concerning creative partnerships
22 in hatchery production, is valuable because the Integrated Hatchery Operations Team (IHOT) is
23 working to implement cooperation among the co-managers. Section 7.2D, concerning improved
24 propagation at existing facilities, should not be deleted unless explicitly addressed by IHOT. And
25 Sections 7.6C, 7.7, 7.7A, and 7.7B all lead to participation in watershed management by private
26 land owners. Local landowner buy-in is dependent on boards and councils which encourage
27 participation by local residents and are representative of all interests in a watershed. The Model
28 Watershed program may not have reached its full potential in Oregon, but it does present a good
29 approach which should not be lost. (234)
30

31 The American Fisheries Society, Oregon Chapter, opposed the deletion of biodiversity
32 measures and hatchery oversight and evaluation measures. The Society also opposed the deletion
33 of provisions for watershed planning and activities. (199)
34

35 Bonneville commented generally that improvements in subbasin planning efforts should cost
36 less and approve projects faster. Each level of planning should identify and evaluate alternatives,
37 consider interactions and trade-offs, estimate annual and lifetime costs and biological results; and
38 relate closely to identified limiting factors and potential production capacity in each system. It is,
39 however, also critical to involve local landowners in the planning processes, as in model watersheds.
40 Thus any proposed improvements in subbasin and watershed planning should be costed out and
41 compared for their responsiveness to this criteria. There is also a need to look at multiple
42 appropriate funding sources for the subbasin and subregional planning effort; Bonneville's funding

1 and planning contribution should focus on regional coordination of funding and planning efforts.
2 (146)

3
4 The Oregon Department of Forestry commented generally that the Council should be
5 coordinating habitat and watershed planning, standards and activities with all interested entities
6 (federal EIS teams; state forestry agencies; local governments private landowners and forest users,
7 etc.) and should be calling for watershed planning processes that include the widest possible
8 affected public and private entities and people. (134)

9
10 The National Park Service, Coulee Dam Recreation Area, supported “an approach to
11 coordinating watershed planning efforts that requires habitat master plans for the watershed and a
12 NEPA-type analysis for public review, including consultations, agreements and coordination among
13 all the regulatory entities and public and private landowners in the water sheds.” Such a process,
14 identified by the Service as in Section 7.7A, should apply across the basin as part of the
15 anadromous fish, resident fish and wildlife programs. (228)

16
17 Public Utility District No. 1 of Okanogan County commented that provisions regarding
18 watershed management should include a mandate to allow for input from all affected parties,
19 including local governments, fishermen and landowners affected by the Council's decisions. The
20 PUD suggested that the reason there has been little progress concerning some projects is because
21 the Council has failed to “sell” the program to the affected area. (222)

22
23 **Findings:** The Council did not adopt this recommendation. This recommendation was part
24 of a recommended wholesale revision to implementation and planning processes in Sections 3, 7
25 and 10.2. Much of the Council’s response to the recommendations can be found in the findings on
26 Section 3.1B and 10.2.

27
28 The Council rejected the recommended deletions for Section 7 for a number of reasons.
29 First, the UCUT Tribes recommended the deletion of measures intended to improve artificial
30 production and to expand habitat and watershed planning processes that other entities, including but
31 not limited to fish and wildlife managers, have recommended and/or supported, as illustrated by the
32 comments from the Oregon Department of Fish and Wildlife and the American Fisheries Society,
33 Oregon Chapter. The Council adopted these provisions in previous anadromous fish rulemakings
34 because they were based in large part on recommendations from fish and wildlife managers, they
35 satisfied the criteria in the Act, and, most important, they address real problems in the
36 implementation of controversial production and watershed habitat improvements. For example, the
37 fish managers do not have sole control over or interests in watersheds and watershed habitat. Too
38 many other interests in these watersheds will be asked to change their practices to benefit fish to
39 leave them out of the watershed planning process. This is the focus of the model watershed and
40 other habitat and watershed planning provisions in Section 7.6 and 7.7 recommended here for
41 deletion, creating watershed planning processes that try to involve as many of the interests and
42 managers in a watershed as possible, an approach clearly supported in the comments to the
43 Council. In another example, few subjects have been as controversial in recent years as the impact

1 and validity of hatcheries and other artificial production, with the only consensus being that hatchery
2 practices need to change to be consistent with other objectives, especially weak native stock
3 protection. Addressing this problem is the main purpose of the provisions in Section 7.2
4 recommended here for deletion.
5

6 The Council would like, as much as the UCUT Tribes, not to have to call for these various
7 review and planning processes, but that would assume a consensus policy stance and unanimous
8 view of the science concerning production and habitat activities. The fish managers themselves are
9 divided on these points. The UCUT Tribes commented that the Integrated System Plan is available
10 for implementation and should substitute for all of these production and watershed planning
11 processes. As noted in the findings on Section 3.1B, even the fish managers do not agree that the
12 Council should simply implement the subbasin plans in the ISP, and certainly many other interests in
13 the region and in any particular watershed or subbasin do not support direct implementation of the
14 production and habitat measures in the ISP. The choice is between creating these review processes
15 to try to resolve these problems and calling a halt to production and watershed activities. There is
16 no option simply to implement a consensus set of actions.
17

18 Second, the provisions recommended for deletion do not, except for Section 7.7, apply to
19 resident fish and resident fish substitution projects, which are the area of operations for the UCUT
20 Tribes. See Sections 10.2A and 10.2B, which call for the application of various other provisions in
21 Section 7 to resident fish planning and implementation, along with the Section 7.7 watershed
22 planning process. (The Section 7/Section 10.2 relationship is discussed above in the findings on
23 Sections 10.2A and 10.2B). Thus the UCUT Tribes are not and will not be burdened with
24 compliance with these review processes as they plan and implement their resident fish and resident
25 fish substitution projects. The Council understands the Tribes to object to these provisions anyway,
26 because they require budget money that could in their view be better spent on other activities.
27 However, if these provisions are truly less important than other provisions in the anadromous fish
28 program, then they will be ranked accordingly in the implementation planning prioritization process
29 (see Section 3.1B). In any event, the prioritization and funding of these provisions should not have
30 any impact on the share of the budget allocated to resident fish and resident fish substitution projects
31 (see Section 2.2F). Under these circumstances the Council, before deletion of these provisions,
32 would expect at least some of the entities that participate in or are affected by these particular
33 review processes, including the anadromous fish managers, to support such a deletion.
34

35 For these reasons, the Council concludes that what the UCUT Tribes recommended was
36 less effective than what the Council has adopted for the protection, mitigation and enhancement of
37 fish and wildlife, 16 U.S.C. §839b(h)(7)(C). Further, the Council considers that what it has adopted
38 better complements the activities of all the region's federal and state fish and wildlife agencies and
39 Indian tribes, 16 U.S.C. §839b(h)(6)(A), (7)(B).
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1 **SECTION 10: RESIDENT FISH**
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3

4 **Program Section(s): 10, 10.1 (resident fish program policy and biological**
5 **framework)**

6 Source: Confederated Salish and Kootenai Tribes

7 Recommendation No.: 95-2/0030
8

9 **Recommendation:** The Confederated Salish and Kootenai Tribes recommended a
10 narrative revision and addition to the Section 10 introduction and to Section 10.1 to state a policy
11 and biological framework for the resident fish program:
12

13 The narrative addition to the introduction emphasizes that the framework will give a
14 collection of measures the necessary structure and basis for integrated, coordinated planning and
15 implementation. The framework will serve four functions: (1) focus the program around a functional,
16 recognized framework; (2) establish a coordinated implementation process with a basis for
17 prioritizing proposed measures and funding allocations; (3) assure that efforts are directed at the
18 adverse impacts of the hydropower system; and (4) reflect the Council's commitment to adaptive
19 management and by allowing monitoring, evaluation and research to guide implementation toward
20 the objectives.
21

22 Section 10.1 is currently called the "Resident Fish Goal"; the Tribes would re-title Section
23 10.1 as "Components to Program Framework". This section begins with a Section 10.1A,
24 Principles, that states (and, to some extent, re-states in various ways) important concepts underlying
25 the resident fish program. It starts with the statutory standard and with the observation that the
26 immediate program focus in the resident fish area must be the populations in the reservoirs and
27 below the hydroprojects. This section then states four key "principles" for the program: (1)
28 promote comprehensive and cooperative watershed management; (2) promote ecosystem diversity,
29 productivity and stability; (3) conserve natural genetic attributes and diversity; and (4) support four
30 management priorities: (a) protect, restore and enhance native resident fish populations; (b)
31 maintain, develop and enhance consumptive and non-consumptive fisheries; (c) protect, restore and
32 enhance resident fish populations affected by the hydrosystem; and (d) protect resident fish in areas
33 below federal hydropower projects where historical flow regimes have been altered. In the short
34 term the emphasis must be on the weak stocks -- e.g., bull trout and white sturgeon -- although the
35 Council must be concerned about all resident fish and general watershed ecosystem health in the
36 long run.
37

38 Section 10.1B then states a Program Goal for Resident Fish: "The program goal for
39 resident fish is to promote, maintain, restore and enhance the long-term health and viability of
40 resident fish populations to meet consumptive and non-consumptive needs in the Columbia River
41 Basin." This section also states that "Specific Goals" -- apparently to be expressed in terms of
42 desired population numbers -- should be set for reservoirs and river reaches, which are called the

1 "usual management units" for resident fish. There is also a discussion of the "Basis for Resident Fish
2 Goals," focusing mostly on hydropower project impacts and loss assessments, etc.

3
4 "Biological Objectives" and related matters are the focus of Section 10.1C, ultimately calling
5 for the development of discrete, quantified biological objectives for the resident fish part of the
6 program. Resembling the CRITFC approach to biological objectives for anadromous fish, the
7 "biological objectives" for the resident fish program are defined as the "fish population attributes
8 (e.g., number, age composition, survival) or environmental attributes necessary to achieve
9 production, mitigation and enhancement" of the fish populations. Resident fish biological objectives
10 "relate the needs of resident fish (e.g., stock-specific numerical goals) to the development and
11 operations of the hydropower system and must have quantifiable criteria based on specific numeric
12 population parameters (e.g., desired overall survival rate of a particular life stage) with related time
13 tables for achievement." Resident fish biological objectives are to be "listed as measures in the
14 Council's program for each specific federal hydroproject that mitigates for either resident fish losses
15 or resident fish substitution." This section also provides some guidance as to how to assess the
16 contribution of measures and actions toward meeting the objectives.

17
18 The framework then revises existing Section 10.1A.1 into a new 10.1C.1, adding language
19 stating that the fishery managers will provide biological objectives, management goals and
20 implementation strategies, including the completion of loss assessments for each hydroproject by
21 1996. Finally, a new Section 10.1C.3 calls on the fishery managers in 1995 to develop biological
22 objectives and implementation strategies.

23
24 **Draft:** The Council received five recommendations containing three different versions of a
25 revised policy and biological framework for the resident fish program, including this
26 recommendation from the Confederated Salish and Kootenai Tribes (95-2/0030); a different
27 version submitted by the Burns Paiute Tribe (95-2/0033), the Shoshone-Bannock Tribes (95-
28 2/0036), and the Oregon Department of Fish and Wildlife (95-2/0051); and a third version
29 submitted by the Upper Columbia United Tribes (95-2/0076).

30
31 Following the close of the recommendations period, what is known as the Resident Fish
32 Committee produced a reconciled version of a policy and biological framework revision for
33 Sections 10 and 10.1. A letter to the Council from Jack Donaldson, Executive Director of the
34 Columbia Basin Fish and Wildlife Authority, stated that the members of the Authority approved the
35 reconciliation at their semi-annual meeting in March, 1995 (95-2/0129). Thus CBFWA submitted
36 the reconciled version to the Council to substitute for the recommendations in the draft amendments.
37 The Council then incorporated the reconciled version into the draft rule, with three changes that are
38 not relevant here but will be discussed below with regard to the UCUT Tribes' framework
39 recommendation.

40
41 The reconciled framework is more extensive than the framework recommended by the
42 Salish-Kootenai Tribes, but not necessarily inconsistent with the Tribes' recommendation. The
43 reconciled version of the framework is essentially a combination of the framework recommended by

1 the Salish-Kootenai Tribes and significant portions of the framework recommended by the UCUT
2 Tribes.

3
4 **Comment:** Comments relevant to the recommended policy and biological frameworks are
5 summarized below, at the summary and findings on the UCUT Tribes' framework recommendation.

6
7 **Findings:** With regard to the Section 10 policy and biological framework, see the findings
8 below in response to the UCUT Tribes' framework recommendation.

9
10
11
12 **Program Section(s):** **10, 10.1 (resident fish program policy and biological**
13 **framework)**

14 Source: Burns Paiute Tribe

15 Recommendation No.: 95-2/0033

16 Source: Shoshone-Bannock Tribes

17 Recommendation No.: 95-2/0036

18 Source: Oregon Department of Fish and Wildlife

19 Recommendation No.: 95-2/0051
20

21 **Recommendation:** The biological/policy program framework submitted by the
22 Confederated Salish and Kootenai Tribes (discussed above) had its genesis in the discussions of the
23 Resident Fish Committee, although that committee did not reach a consensus on a framework
24 during the recommendations period. One product of some of the members who took part in the
25 committee discussions was a more extensive framework recommendation than submitted by the
26 Salish-Kootenai Tribes. This more expansive framework was the basis for the program framework
27 recommendations submitted by the Burns Paiute Tribe, the Shoshone-Bannock Tribes and the
28 Oregon Department of Fish and Wildlife. This framework combined everything that was in the
29 framework submitted by the Salish-Kootenai Tribes with a couple of diagrams setting forth a
30 hierarchical pyramid of program mission, goals, biological objectives and strategies. Thus part of
31 this framework was described in the findings on the recommendation above, which will not be
32 repeated here.

33
34 The other part of the framework -- represented by two diagrams -- was derived primarily
35 from a narrative program framework that the Council received from the Columbia Basin Fish and
36 Wildlife Authority on December 6, 1994, at the close of the anadromous fish rulemaking
37 consultation period. The CBFWA framework began with a general Program Mission, which had a
38 subordinate Fisheries Goal and Wildlife Goal. Subordinate to the overall Fisheries Goal was an
39 Anadromous Fish Biological Objective, Survival and Production Improvement Subobjectives, a
40 series of Strategies to meet the objectives, and more. The CBFWA framework was a qualitative,
41 narrative statement, and did not have a quantitative, numerical aspect beyond the general doubling
42 and full mitigation goals.

1 The resident fish framework or hierarchy submitted here in diagram form was primarily
2 based on the CBFWA December submission, with a few semantic and substantive differences. It
3 begins with the same Program Mission and Fisheries and Wildlife Goal. Subordinate to the overall
4 Fisheries Goal is the Resident Fisheries Goal Component (the level in the hierarchy that CBFWA
5 called the Biological Objective). The Resident Fisheries Goal in the diagram is almost the same as
6 stated in the narrative (quoted in the recommendation summary above), with a few semantic
7 differences.

8
9 The next level in the hierarchy, which CBFWA called the “Subobjectives,” is here called the
10 Survival Improvement and Production Improvement Biological Objectives, intended to address
11 resident fish losses. There is also an Anadromous Fish Substitution objective. Below these
12 objectives is again a set of Strategies for achieving the objectives. The proposed framework
13 consists at present only of qualitative, narrative goals, objectives and strategies, and most of these
14 are intended to stay that way. But one way in which this framework differs from the CBFWA
15 framework is that the proposed resident fish framework does contemplate the development and
16 integration of some numerical objectives. Thus, for example, the Survival Improvement Biological
17 Objective calls for the adoption of strategies “to improve survival by protecting and enhancing the
18 environmental attributes needed to increase resident fish populations by ___ percent by year ____.”
19 And the Production Improvement Biological Objective calls for strategies that “increase both natural
20 and artificial resident fish production survival by ___ percent by year ___ while providing the
21 necessary biodiversity protection.” This is partly consistent with the framework narrative (discussed
22 in the summary of the recommendation above), which calls for the development of a set of
23 quantified biological objectives expressing survival improvements for each project.

24
25 **Draft:** To reiterate from above, the Council received five recommendations containing
26 three different versions of a revised policy and biological framework for the resident fish program,
27 including the version in these three recommendations as well as a reduced version from the
28 Confederated Salish and Kootenai Tribes (95-2/0030) and a third version submitted by the Upper
29 Columbia United Tribes (95-2/0076).

30
31 Following the close of the recommendations period, the Resident Fish Committee produced
32 a reconciled version of a policy and biological framework revision for Sections 10 and 10.1. A
33 letter to the Council from Jack Donaldson, Executive Director of CBFWA, stated that the members
34 of CBFWA approved the reconciliation at CBFWA’s semi-annual meeting in March, 1995 (95-
35 2/0129). Thus CBFWA submitted the reconciled version to the Council to substitute for the
36 recommendations in the draft amendments. The Council then incorporated the reconciled version
37 into the draft rule, with three changes that are not relevant here but are discussed below with regard
38 to the UCUT Tribes’ framework recommendation.

39
40 The reconciled framework is different than the framework recommended here, especially in
41 that the reconciled framework removed the two diagrams that set forth the hierarchical pyramid of
42 program goals, objectives and strategies (which were, in a number of ways, inconsistent with the
43 narrative statement of goals and objectives). The reconciled framework also added material that

1 was not in the version here, but the added material does not necessarily appear to be inconsistent
2 with the recommendation. To repeat from above, the reconciled version of the framework is
3 essentially a combination of the framework recommended by the Salish-Kootenai Tribes and
4 significant portions of the framework recommended by the UCUT Tribes.
5

6 **Comment:** In written comments, the Oregon Department of Fish and Wildlife reaffirmed
7 its support for the CBFWA consensus revision for Sections 10 and 10.1 (142). Other comments
8 relevant to the recommended policy and biological frameworks are summarized below, at the
9 summary and findings on the UCUT Tribes' framework recommendation.
10

11 **Findings:** With regard to the Section 10 policy and biological framework, see the findings
12 below in response to the UCUT Tribes' framework recommendation.
13
14
15

16 **Program Section(s):** **10, 10.1 (resident fish program policy and biological**
17 **framework**

18 **Source:** Upper Columbia United Tribes (Spokane, Coeur d'Alene, Kalispel and
19 Kootenai Tribes)

20 **Recommendation No.:** 95-2/0076
21

22 **Recommendation:** The UCUT Tribes recommended a third policy/biological framework
23 as a revision to the first portion of Section 10 in the 1994 program, that is, the Section 10
24 introduction and Section 10.1 and what were Sections 10.2A and 10.2D. (This recommendation
25 also proposed revisions to what were Sections 10.2B and 10.2C in the 1994 program, which are
26 discussed separately below.)
27

28 The introductory narrative to Section 10 was changed in relatively minor ways, primarily to
29 note the problem of entrainment and to include largemouth bass, yellow perch and walleye in the list
30 of resident fish of special interest. The Resident Fish Goal in Section 10.1 has been similarly revised
31 in relatively minor ways, to state clearly that the goal is (1) to mitigate, restore and enhance resident
32 fish to the extent damaged by the hydropower system, and (2) in areas blocked to anadromous fish
33 by federal hydroprojects, to substitute resident fish. The revised goal states further that the Council
34 expects that fisheries will be enhanced to the extent to allow for consumptive subsistence and
35 recreational fisheries; that the Council is required to mitigate only for the effects of the hydropower
36 system; that to be effective and to treat the basin as an ecosystem, the Council's program has to be
37 something more than a collection of unrelated measures; that because the anadromous fish measures
38 tend also to benefit resident fish below Chief Joseph and Hells Canyon, the resident fish portion of
39 the program should focus above Chief Joseph/Grand Coulee and Hells Canyon; and that the
40 program must focus on measures providing immediate on-the-ground benefits to depressed stocks
41 especially instead of process-related activities.
42

1 This recommendation deleted the reference in Section 10.1A to the program framework
2 and rebuilding schedules and objectives. Instead Section 10.1A would state three program
3 Principles, intended to protect, restore and enhance resident fish populations: (1) to the extent
4 affected by the hydropower system and substitute for blocked areas; (2) in federal hydro storage
5 projects, particularly Hungry Horse, Libby, Grand Coulee and Dworshak, from water releases for
6 power production, flood control and anadromous fish flows; and (3) in areas below federal
7 hydroprojects, particularly the Kootenai River below Libby Dam, that are severely impacted by
8 altered annual flow regimes, daily load following, and nutrient trapping.

9
10 A new Section 10.1B then stated five Priorities (replacing the deleted priorities in existing
11 Section 10.2A): (1) Bonneville's highest priority will be to fund measures with immediate on-the-
12 ground benefits (plus monitoring and evaluation), especially to stocks supporting fisheries and
13 specified target species. (2) Accord priority to the development of biological and integrated rule
14 curves for Hungry Horse, Libby, Grand Coulee and Dworshak, and identify a "reasonable balance"
15 between anadromous fish flows and reservoir elevations and water retention times to protect
16 resident fish. (3) Accord high priority to protect and restore fisheries in "free flowing rivers below
17 federal hydroelectric projects (e.g., Kootenai River below Libby Dam)" that have experienced
18 altered flow regimes and problems related to load following. (4) Accord high priority to measures
19 to protect, restore and enhance native resident fish in suitable or restorable habitats in geographical
20 range, and coordinate habitat projects to promote comprehensive watershed management. (5)
21 Accord highest priority to resident fish projects in the blocked area above Chief Joseph/Grand
22 Coulee dams, including both resident fish substitution and resident fish mitigation projects, for
23 various reasons stated.

24
25 A new Section 10.1C stated that Bonneville shall fund resident fish measures at 15 percent
26 of the total program dollars or \$15 million, whichever is greater, and complete all specified actions
27 by 2006. A new Section 10.1D provided for Bonneville to fund loss assessments, but funding for
28 loss assessment is a lower priority if funding is limited. And a new Section 10.1E stated that fishery
29 managers will develop biological objectives in each eco-region or reservation, including objectives
30 for harvest, escapement and production. Bonneville is to give highest priority in funding to measures
31 related to specific biological objectives.

32
33 Finally, existing Section 10.2D, concerning Project Implementation and Selection, was
34 revised in minor ways, primarily (among a few other changes) to make clear that CBFWA will
35 prepare an annual work plan and that the plan will include a list of resident fish projects that "equals
36 the annual budget targets" established by the Council and Bonneville. This revision corresponds to
37 the project selection process recommended by the UCUT Tribes as a revision to Section 3.1B,
38 described above. Finally, existing Section 10.2D.1 would be revised to call for implementation by
39 2006 of all the resident fish measures in the program.

40
41 **Draft:** To reiterate from above, the UCUT Tribes' proposed Section 10 framework was
42 one of three versions submitted in five different recommendations. Following the close of the
43 recommendations period, the Resident Fish Committee produced a reconciled version of a policy

1 and biological framework revision for Sections 10 and 10.1. A letter to the Council from Jack
2 Donaldson, Executive Director of the Columbia Basin Fish and Wildlife Authority, stated that the
3 members of CBFWA approved the reconciliation at CBFWA's semi-annual meeting in March,
4 1995 (95-2/0129). Thus CBFWA submitted the reconciled version to the Council to substitute for
5 the recommendations in the draft amendments. The Council then incorporated the reconciled
6 version into the draft rule, with three changes that are of relevance here and are discussed below.

7
8 The CBFWA reconciled framework incorporated some but not all of the principles and
9 provisions in the UCUT Tribes' recommended framework for revising existing Sections 10, 10.1,
10 10.2A and 10.2D into the proposed Sections 10 and 10.1. While the UCUT Tribes as members of
11 CBFWA agreed to and have supported the CBFWA reconciled framework, the Tribes also
12 requested that their specific framework not simply be deleted. Thus the Council included that
13 UCUT Tribes' recommended framework in the draft rule appendix "Other Amendment
14 Recommendations On Which the Council Specifically Invites Comment."

15
16 As noted, the CBFWA consensus framework incorporated a number of concepts and
17 principles recommended by the UCUT Tribes, and it was three of those concepts that the Council
18 modified in the draft rule. First, proposed Section 10.1A stated three principles for the program,
19 including that the program "[p]rotect, restore and enhance resident fish in storage projects from
20 negative impacts associated with water releases." The Council modified this to call for such
21 protection, etc. "to the fullest extent practicable."

22
23 Second, the existing program stated that the highest priority for the resident fish program
24 would be to assist weak but recoverable stocks wherever these are found. Section 10.1B of the
25 UCUT Tribes' recommended framework elevated as an equal "highest priority" resident fish
26 substitution and mitigation projects in the blocked areas above Chief Joseph/Grand Coulee dams.
27 The CBFWA reconciled version added the blocked areas above Dworshak and Hells Canyon
28 dams to this highest priority. The Council modified Section 10.1B in the draft rule to state a
29 hierarchy of "highest priorities" -- first, weak stock protection, then, resident fish substitution and
30 mitigation projects in the specified blocked areas.

31
32 Third, Section 10.1C of the UCUT Tribes' recommendation and the CBFWA reconciled
33 version stated that budget levels for resident fish should be 15 percent of total budget dollars or \$15
34 million, whichever is greater. This was a change from the other recommendations that proposed a
35 straight 15 percent. The Council modified this language in the draft rule (in Section 10 and
36 elsewhere) to call for "at least" 15 percent, allowing for funding levels greater than 15 percent of
37 total budget dollars, but not mandating a floor of \$15 million in funding.

38
39 **Comment:** Jack Donaldson, Executive Director of CBFWA, submitted a letter at the end
40 of the comment period reaffirming the CBFWA members' commitment in support of the language
41 recommended by CBFWA and requesting that the language as submitted "be fully considered" by
42 the Council during the rulemaking process. (220)

43

1 While the UCUT Tribes requested that their specific framework recommendation be part of
2 the draft rule package (and thus the Council placed it in the appendix to the draft rule), in oral and
3 written testimony on the draft rule the Tribes, collectively and individually, commented on and
4 supported the CBFWA consensus framework. The Tribes vigorously objected to the changes
5 proposed by the Council and insisted that the Council should return the framework to the exact
6 language submitted by CBFWA as the consensus of the fish managers. These comments
7 particularly focused on and objected to the Council's modification of the budget allocation language
8 and the statement of the "highest" priority.

9
10 The UCUT Tribes contend that the Council's change in the priority statement does not
11 complement the existing and future activities of the UCUT Tribes and the other agencies and tribes,
12 as required by Section 4(h)(6)(A) and (D). The Tribes noted that inundation has altered habitat and
13 blocked passage, making it virtually impossible to restore some native species and providing habitat
14 and niches to which some non-native fish are better adapted to survive naturally. Thus the UCUT
15 Tribes' primary goal is "to restore ecosystems to promote biological diversity and ecosystem
16 stability, as well as restore and enhance subsistence and recreational fisheries for tribal members. In
17 some cases, this will necessitate enhancing non-native species that are better adapted to the altered
18 ecosystem. In other cases when possible, it will involve enhancing weak but recoverable
19 populations in native habitats." This is the UCUT Tribes' management decision, not the Council's,
20 and thus the Council's priority needs to match the Tribes' as required by Section 4(h)(6)(A) of the
21 Power Act. "[S]etting highest priorities for weak but recoverable stocks is therefore not acceptable
22 to the UCUT Tribes. Instead, [the Council's] highest priority should reflect our concern for
23 stabilizing either natural or altered ecosystems," with the aim of "promoting biological diversity and
24 restoring and enhancing subsistence and recreational fisheries." The Tribes emphasized that the
25 proposed framework "establishes two co-equal priorities, one for weak recoverable resident fish
26 stocks, and the second for doing resident fish substitution in the blocked areas."

27
28 The UCUT Tribes also emphasized that the framework calls for the development of specific
29 biological objectives related to specific hydroprojects (such as targets for harvest, escapement,
30 adult populations, biomass levels, etc.) and an assessment of how these objectives relate to the
31 losses attributable to the hydroproject addressed. This is what the Council, Bonneville and the
32 utilities have been requesting for years, as the Act limits Bonneville's mitigation expenditures to
33 losses caused by the hydropower system. On the other hand, conducting loss assessments for
34 resident fish would be difficult to justify scientifically and a waste of money, in the Tribes' best
35 scientific judgment. The historical information the Council needed and had for salmon (dam counts;
36 catch records) is generally not available for resident fish. The UCUT Tribes' own elaborate efforts
37 to compile such information under a contract with the Council turned up little that was meaningful.
38 Developing loss assessments will be contentious, tie up substantial money, delay on-the-ground
39 activities, and yield little useful information. Nor is there any need to assess resident fish losses at
40 this time, for two reasons. First, mainstem dams have inundated nearly the entire Columbia and
41 Snake mainstem and the mouths of most tributaries. Upriver storage reservoirs have inundated
42 substantial habitat as well, and regulated flows have decimated substantial amounts of habitat, too.
43 Sturgeon stocks are already listed, and kokanee, burbot, bull trout, cutthroat and native rainbow

1 stocks are close behind. Such destruction of native fish habitat, particularly for native salmonids,
2 will take many years and much money to begin to mitigate. Second, the Council's program
3 recognizes that hydropower is responsible for the loss of far more anadromous fish than the
4 Council's doubling and rebuilding goals have targeted. Thus the hydrosystem will still owe a
5 substantial debt at the conclusion. "[S]ince the region will still be a long way from mitigating
6 hydropower losses for salmon, there is no need to assess losses of resident fish, the primary
7 purpose of which would be for accounting purposes." For these reasons, the Council should make
8 implementation of on-the-ground projects for protection, restoration and enhancement of resident
9 fish the top priority of the resident fish program, not conducting loss assessments.

10
11 The Coeur d'Alene Tribe, one of the UCUT Tribes' members, further commented that it
12 supported the draft language "that calls for all major actions to be completed by the year 2006," as
13 a "realistic goal if appropriate funding levels are associated with the resident fish and wildlife
14 section." (174, 178, 188, 194, 196)

15
16 The Colville Confederated Tribes also requested that the Council adopt the CBFWA
17 framework as submitted, including the exact language on priorities that assigns a "very high priority"
18 to the blocked area above Chief Joseph and Grand Coulee dams. "The Colville Tribe suffered
19 irreparable damage to its anadromous fishery and cultural way of life. The Tribe is utilizing resident
20 fish substitution as its primary mitigative tool for losses of anadromous fish. Funding for these
21 projects was not realized until 1989 and has been inadequate in many cases to provide proper
22 implementation. Current operations within the Columbia River basin for recovery of listed Snake
23 River anadromous fish stocks has the potential to adversely affect the current and proposed resident
24 fish substitution projects in the storage reservoirs above Chief Joseph and Grand Coulee Dams. It
25 is therefore imperative that the requested funds be allocated for projects in these blocked areas to
26 preserve and enhance the resident fish and wildlife species present." The Tribe emphasized that
27 they were seeking equal highest priorities, for weak stock protection and resident fish substitution
28 above the noted blocked areas. (174, 226)

29
30 The Washington Department of Fish and Wildlife supported the consensus language
31 developed for these sections by the agencies and tribes through CBFWA, which should replace the
32 language in the draft amendments. (230)

33
34 The Montana Department of Fish, Wildlife and Parks commented that it assumed that
35 because Libby and Hungry Horse dams are upstream of Grand Coulee, the priority favoring the
36 area above Grand Coulee applies to those projects, and that the "resident fish measures associated
37 with these projects should receive special attention." The Department objected to placing the
38 highest priority on weak stocks of native fish, "as a high risk strategy that may result in declines in
39 our strongest stocks." The Department explained that it would be "very difficult" to determine what
40 is a weak but recoverable stock, that resource agencies have very little experience and success in
41 recovering weak stocks, and that while agencies and tribes concentrate their efforts on weak
42 stocks, strong stocks will decline to weaker conditions. The Department recommend that the
43 highest priority be "the protection of healthy, viable populations of native fish species," which can

1 serve as seed sources if weaker stocks are lost. Weak but recoverable stocks should be the
2 second priority, and the third priority should be existing non-native fisheries. New non-native
3 fisheries should be the fourth priority, and only when they will not provide competition for native
4 fish. “We do not support the new introduction of non-native species that may adversely affect a
5 native fish population.”
6

7 MDFWP also recommended that the statement of the third principle in Section 10.1A
8 should be expanded to include “temperature modifications,” to wit: “Protect, restore and enhance
9 resident fish in areas below storage projects that are severely impacted by altered flow regiments,
10 **temperature modifications**, daily load following, and nutrient trapping.”
11

12 MDFWP recommended an addition to footnote 2 in Section 10.1. This footnote states the
13 types of resident fish gains that can be credited to a project, and includes as an example gains that
14 occur when a reservoir raises the water table in the surrounding area and forms “pothole lakes”
15 amenable to resident fish populations. The Department recommended that the footnote “include
16 ‘offsite’ lakes and streams within the impacted drainage as well as pothole lakes.”
17

18 Finally, MDFWP raised a number of concerns with the references in proposed Section
19 10.1C to the development of biological objectives. The Department noted that resident fish
20 biological objectives are defined to “relate the needs of resident fish (e.g., stock specific numerical
21 goals)” to the hydropower system and to contain “quantifiable criteria based on specific numeric
22 population parameters (e.g., desired overall survival rate of a particular life stage) with related time
23 tables for achievement.” The language “implies a degree of certainty” that the Department does not
24 believe is achievable, especially given all of the variables over which the managers have no control,
25 such as drought. In addition, the Department is “not clear on the basis for the development of these
26 biological objectives.” The Department then noted that its concerns appear to be addressed in the
27 biological framework and adaptive management language in Section 4.0C of the program. The
28 Department also noted that MDFWP and others have spent significant time and money developing
29 loss statements, and that the loss statements can and should form the basis for development of
30 biological objectives and for evaluating mitigation activities. The agencies and tribes can then review
31 various mitigation strategies to determine which are most likely to be successful in mitigating the loss
32 and achieving these objectives, and describe the contribution of each strategy proposed for
33 implementation toward attaining the biological objectives. Monitoring plans need to be developed
34 that are capable of determining whether mitigation efforts are leading to attainment of the objectives,
35 with changes in the strategy made when monitoring reflects that the objectives are not being met.
36 (186, 202)
37

38 The Confederated Salish and Kootenai Tribes commented in support of Council adoption
39 of the resident fish goal, principles and priorities (proposed Sections 10.1, 10.1A and 10.1B) as
40 submitted by CBFWA. The Tribes questioned the language about biological objectives in
41 proposed Section 10.1C. In comments similar to those from MDFWP, the Tribes stated that the
42 development of biological objectives is “uncertain at best,” while monitoring to determine whether
43 objectives have been achieved “is equally problematic.” Biological objectives should be developed

1 within “an adaptive mitigation/implementation plan associated with a particular hydropower project
2 and approved by the Council.” There is no need to include objectives in the program itself. The
3 development of loss statements is a “credible and reasonable alternative” to the development of
4 biological objectives, as shown by the Hungry Horse mitigation plan, which is based on a Council-
5 approved loss statement, as will be the similar plan developed for Libby Dam. In fact, meaningful
6 biological objectives can be developed only after losses are determined. For this reason, the Tribes
7 recommend substituting “development of loss statements” for “development of biological objectives”
8 throughout Section 10. (186, 191)
9

10 With regard to resident fish priorities in Section 10.1B, the Columbia River Inter-Tribal Fish
11 Commission and one of its members, the Confederated Tribes of the Umatilla Indian Reservation,
12 opposed giving priority to resident fish projects based on geographic location above Grand Coulee,
13 Dworshak and Hells Canyon Dams rather than on biological merits. Moreover, fishery
14 developments in these areas, as proposed, would include opportunities to use both native and
15 introduced fish species -- a process that would allow for increased production of warm water
16 predators and competitors such as walleye, bass and yellow perch that are not compatible with
17 salmon. Some of the fisheries above Grand Coulee are in good shape and expanding; fisheries
18 should not receive the highest priority where preservation of the fishery is not critical and harvest is
19 expanding. In contrast, development of a lower Columbia and Snake River sturgeon program,
20 particularly in Zone 6, is important to the tribes and state agencies -- these populations are in
21 decline, yet increased production of this native fish is compatible with salmon and is needed to
22 maintain the diversity of fishing opportunities that have been constrained by low salmon numbers.
23 For these reasons, the Council should amend the resident fish priority measures to give emphasis to
24 species native to the Columbia Basin which have been damaged by hydropower development and
25 operation and where reservoir water and other management strategies for their benefit will not
26 conflict with efforts to rebuild anadromous fish. (232, 233)
27

28 The Oregon Department of Fish and Wildlife recommended that resident fish substitution
29 projects be removed from highest priority and moved to high priority. The recommended priority
30 currently identifies no basis for according higher priorities in some basin areas over others. The
31 recommended priority for areas where anadromous fish are not present could eliminate other
32 important resident fish work. ODFW also requests that the Council affirm their interpretation of the
33 amendments that the “highest priority” elements are in rank order (weak stock protection, then
34 blocked areas), but that the “high priority” elements are not. (234) In a consultation with Oregon
35 Council members, ODFW personnel also commented that the biological objective development
36 process should call for some sort of peer review of recommended objectives before the Council
37 adopts the objectives into the program or the objectives are used to prioritize measures for
38 implementation.
39

40 The Burns Paiute Tribe commented that it supported the statement of priorities as modified
41 by the Council, according highest priority to weak but recoverable native populations and then
42 according high priority to areas where anadromous fish are not present. (176)
43

1 The Idaho Department of Fish and Game approved of the language in Section 10.1B
2 affording the blocked area above Hells Canyon Dam equal consideration with the blocked area
3 above Chief Joseph/Grand Coulee dams, in contrast to the statement of resident fish substitution
4 policies in Sections 10.8A and 10.8B, which assigns a higher priority to the area above Chief
5 Joseph/Grand Coulee. In a comment directed at the language on resident fish loss assessments
6 incorporated with slight modifications from Section 10.1A into proposed Section 10.1C, IDFG
7 stated that the final version of the amendments “needs to be more affirmative in the commitment
8 from BPA to funding the resident fish loss assessments,” which are the “key to making the
9 judgments as to the mitigation responsibility” and “an important ingredient to the development of
10 IRCs in the storage reservoirs.” Finally, in two technical comments on Section 10.1, IDFG noted
11 (a) that the program does not describe Section 2.2E.7 (which calls on the fish managers to assess
12 trade-offs between resident fish and wildlife species and anadromous fish) as a “high priority,” as
13 labeled in proposed Section 10.1B, which needs to be clarified or changed, and (b) in reference to
14 the statement in proposed Section 10.1C on the need for prompt action to forestall ESA listings for
15 several resident fish species, that kokanee salmon are not proposed for listing. (174, 227).

16
17 Bonneville commented on various aspects of the proposed resident fish framework. In
18 general, Bonneville stated that there is a strong need to define biological goals and objectives for
19 resident fish prior to implementation of specific measures. Comparison of alternative actions for the
20 most cost-effective, and determining the results of actions, is not possible without the specific
21 biological objectives. Bonneville re-emphasized “the need for a crediting system for resident fish
22 mitigation both in the substitution and losses arenas.” The ratepayers must receive credit for
23 resident fish mitigation actions that are implemented. In addition, the Council should distinguish and
24 strike a balance between (1) resident fish substitution measures for permanently blocked areas and
25 (2) those measures that address resident fish losses due to hydropower development and
26 operations. Bonneville needs to know which losses are targeted by what measures and where in the
27 basin these losses occur, which is “critical to the success of a fair and comprehensive program.

28
29 With regard to the resident fish goal stated in proposed Section 10.1, which seeks to
30 “promote, maintain, restore, and enhance the long-term health and viability of resident fish
31 populations,” Bonneville objected to the use of the word “restore” as being an inappropriate term
32 for mitigation and the use of the word “enhance” as inconsistent with the conditions for enhancement
33 stated in the Act. The Act requires that Bonneville protect, mitigate and enhance fish and wildlife.
34 Restoration is not a specified statutory duty, and it is not a part of the concept of “mitigation” as
35 used in the Act. The legislative history of the Act indicates that Congress knew fish and wildlife and
36 their habitats could never be “restored” to their pre-dam era. Given the recognition that many
37 actions taken to develop the hydrosystem may be uncorrectable, and that mitigation would be
38 primarily, although not solely prospective, Bonneville noted that the House Commerce Committee’s
39 use of the term “rejuvenate” can only mean “to impart renewed vitality”, not restore. The use of
40 “restoration” in the program, including the resident fish goal, is inappropriate and may lead to
41 unreasonably high expectations as to the level of protection, mitigation, and enhancement mandated
42 by the Act. It could also undo the power developments of the past, making it impossible to assure
43 an adequate, efficient, economical and reliable power supply.

1
2 The term “enhance” is used in the Act, but in a limited way. Sections 4(h)(5) and (8)(A) in
3 essence limit enhancement measures to those needed to achieve and improve off-site protection and
4 mitigation. Legislative history indicates enhancement was not to be a new or additional obligation.
5 Yet “enhance” is used in the explanation for the proposed resident fish goal (“fisheries shall be
6 enhanced to allow for consumptive subsistence and recreational fisheries”) as a new and additional
7 obligation directed toward fisheries, not fish, and toward recreation, not mitigation of the resource.
8 It is unclear how such enhancement would achieve improved protection and mitigation without
9 undoing the power developments of the past. The resident fish goal should be recast so that it is
10 consistent with the Act.

11
12 Similarly, Bonneville commented that in the resident fish principles in proposed Section
13 10.1A, the program language “protect, mitigate and enhance” should be substituted for the
14 proposed language of “protect, restore and enhance.”

15
16 With regard to the description of biological objectives in proposed Section 10.1C,
17 Bonneville commented that biological objectives need to be related to actual losses. Without some
18 relation to losses, biological objectives will be based upon maximum carrying capacity of existing or
19 enhanced habitat. Without some reasonable assessment of losses there is a question of how the
20 resident fish substitution program will be defined, and all entities will justify a project based upon
21 mainstem losses. The rationale for projects will be easier to understand if there is a loss statement
22 to credit to. Bonneville also stated that the definition and attributes of specific biological objectives
23 for resident fish (“fish population attributes” such as “number, age, composition and survival”)
24 “appear to be similar to the anadromous fish doubling goal performance standards” in Section 4.1C
25 and “do not appear to describe the biological characteristics needed to achieve the rebuilding
26 targets and overall Program goals,” as discussed in Section 4.0C. The rationale for having different
27 criteria for biological objectives for resident and anadromous fish is unclear; the inconsistency needs
28 to be explained or eliminated. Finally, Bonneville commented that there is a “procedural problem” with
29 advancing specific resident fish measures (such as in Section 10.3) “without having biological
30 objectives against which to judge the cost-effectiveness of measures designed to meet the same
31 objectives. Seeking biological objectives from fishery managers for the Council’s use in measuring
32 progress against the hydropower debt [as stated in proposed Section 10.1C.1] does not appear to
33 meet the test for proposed measures established by Section 4(h)(6)(C)” of the Act.

34
35 In addition, Bonneville questioned the region’s ability to implement the resident fish
36 measures by 2006, as stated in proposed Section 10.1C.2. “Without biological objectives, it is
37 difficult to say what measures should be implemented.” Setbacks may result as has been
38 experienced with anadromous fish mitigation. Bonneville has no way to forecast what its fish and
39 wildlife project budget will be, and the requirements of the Endangered Species Act add additional
40 uncertainties. Bonneville does share the Council’s desire to implement measures so as to preclude
41 the need for ESA listings of additional resident fish. (229)

42

1 The Flathead Basin Committee echoed the comments of MDFWP by wondering if the
2 Montana projects were intended to fall within the “above Grand Coulee” highest priority, and asking
3 that it be made clear that they are so included. (186)
4

5 Trout Unlimited, Montana Council, commented that the resident fish program must insure
6 that funding priorities for supplementation and habitat enhancement put native fish first and that no
7 project adversely affect native redbands, cutthroats and bull trout. The Council should evaluate
8 how the proposed amendments, especially those dealing with supplementation or protection of fish
9 such as perch, walleye, brook trout, or non-resident kokanee and rainbows, might adversely affect
10 range-wide recovery of troubled resident natives. The top priority must be to insure the long-term
11 viability of these species. (186)
12

13 Oregon Trout opposed the revised resident fish priorities, stating that native resident fish are
14 what must be addressed, both above and below passage barriers, that where native resident fish
15 below barriers “warrant priority,” they should receive co-equal treatment with native resident fish
16 above passage barriers, that resident fish must also be prioritized in the context of the needs of listed
17 and weak anadromous fish species, and that “[i]n no case whatsoever should non-native resident
18 fish receive any priority” No project ought to be funded that introduces, enhances or gives priority
19 to any non-native or exotic species, and no non-native resident fish should be substituted for losses
20 of anadromous fish. Funding and protecting non-native fish reduces the Council’s ability and
21 flexibility to act to restore native fish, especially listed species, and will only increase conflicts in the
22 basin as anadromous fish measures will adversely affect these non-native fisheries. Oregon Trout
23 also commented that the revised resident fish goal in Section 10.1A is too geared toward maximum
24 production and exploitation of resident fish, “with little regard or priority for native fish.” Oregon
25 Trout recommended retaining the original resident fish goal language that includes the recovery and
26 preservation of native resident fish populations and combining that language with the recommended
27 goal language. Finally, Oregon Trout also commented that if the Council is inclined to give priority
28 to native resident fish above passage barriers over resident fish below barriers, all blocked areas,
29 such as those found in the Willamette and Deschutes basins, should be included. In general, “[t]he
30 general principles that have been applied to the anadromous fish amendments concerning natural
31 production goals, biological and life history goals should also be applied to resident fish. It should
32 not be a license to introduce non-native and exotic species into rivershed ecosystems in which the
33 community of aquatic organisms has evolved together over the millennia.” (168, 209)
34

35 The Oregon Natural Resources Council recommended a set of principles and priorities for
36 the Council to follow: (1) Most important, and what should be central to all parts of the program, is
37 that native fish should be treated separately from, and be given clear preference over, exotic
38 species. The Council should actively seek and give preference to solutions that benefit all native
39 species. (2) Correcting problems through protection and restoration should always take
40 precedence over “mitigating,” “substituting” and “compensating for problems (e.g., mitigation
41 through hatchery production has caused more problems than it has solved). (3) Biological need and
42 opportunity should determine which species are given the highest priority for protection and
43 restoration. (4) Active protective measures should take priority over more studies. ONRC

1 opposed programs and projects designed to protect or enhance exotic species (or even biologically
2 healthy native species) when native species are fighting for survival. ONRC noted that it is sensitive
3 to the fact that native peoples who once depended on salmon now rely on warm-water species, but
4 that restoration of native species is much more likely to satisfy legal and moral obligations to the
5 tribes in the long run. The Council should look for ways to fulfill obligations to the tribes by
6 restoring native fish stocks, including re-opening habitat currently blocked. (231)

7
8 Public Utility District No. 1 of Okanogan County commented that the provisions in Section
9 10.1C regarding the development of biological objectives should include a mandate to allow for
10 input from all affected parties, including local governments, fishermen and landowners affected by
11 the Council's decisions. The PUD also commented that not all hydroelectric projects necessarily
12 "entrain substantial numbers of fish" as implied in the draft language on page 10.1, line 19. They
13 refer to Wells Dam, as an example of a "fish-friendly design," and Enloe Dam, which is one of many
14 small projects required to provide screening to preclude entrainment. (222)

15
16 A number of individual commentators objected to any measures or language that favored
17 non-native resident fish at the expense of native fish, anadromous and resident, including Bhagwati
18 Poddar and Saradell Poddar, Astoria, Oregon; and Sue Knight, Portland, Oregon. Steven M.
19 Bruce, Boise, Idaho, commented specifically on the priority language in the draft rule, stating that
20 protection of native fish -- resident and anadromous -- should be given the highest priority in the
21 program. Everett Peterson, Roseburg, Oregon, and Scott Bischke, Corvallis, Oregon, commented
22 that anadromous fish should receive priority over resident fish and that weak and endangered
23 species and maintaining biodiversity must receive the highest priority. (162, 165, 182, 201, 211)

24
25 Comments specifically concerning the recommended budget allocation have been
26 summarized in response to the recommendation for revisions to Section 2.2F.

27
28 **Findings:** The Council adopted a revised policy and biological framework for Sections 10
29 and 10.1 that (a) adopted the basic organization and format of the reconciled version of the
30 framework submitted by CBFWA; (b) adopted much of the substance of the reconciled
31 framework, either in the precise language submitted or in language revised for editorial reasons; (c)
32 added language and revised the statement of goals and principles for the purpose of making clear
33 the differences between the resident fish mitigation and resident fish substitution portions of the
34 program and to provide a clear set of policies for each part of the program -- changes not intended
35 to conflict with the substance of what was submitted to the Council; and (d) revised the
36 recommended priority statement as described and explained below. (The Council also removed
37 any reference to the budget allocation formula, since this issue has been handled at Section 2.2F.
38 See the findings for that section above; the findings here will not discuss the budget allocation issue.)
39 To the extent that the reconciled framework reflected (or superseded) the separately recommended
40 frameworks of the UCUT Tribes and others, the ways in which the Council adopted and modified
41 the reconciled framework also reflect how the Council responded to the separate recommendations.

42

1 The Council differed most conspicuously (given the comments) with the reconciled
2 framework and with the UCUT Tribes' recommended framework and comments in the statement of
3 the "highest priorities" of the program. The UCUT Tribes and the reconciled framework
4 recommended that resident fish substitution and mitigation projects above the blocked areas be
5 accorded an equal "highest priority" with the rebuilding of weak but recoverable native populations.
6 The Council chose instead to retain (with revisions) the program's statement that the rebuilding of
7 weak but recoverable native populations is the Council's highest priority. Resident fish substitution
8 measures in areas blocked by federally operated hydropower development are also a "highest"
9 priority and close behind rebuilding efforts for weak but recoverable native fish populations. The
10 Council stated that measures falling into either one of the two "highest priority" categories are to be
11 "clearly distinguished" from other resident fish measures, and that "[t]he distinction between these
12 two highest priorities is a narrow one, applicable only to marginal choices among such projects."
13 The Council wishes to be unmistakably clear that neither priority is meant to eclipse the other.
14

15 The Council does not believe that the practical difference between what it has adopted and
16 what the UCUT Tribes' recommended (and was written into the reconciled framework) will be as
17 significant as the UCUT Tribes believe. One concern of the UCUT Tribes is that resident fish
18 substitution measures above Chief Joseph/Grand Coulee receive the necessary funding, and thus
19 they recommended their priority language to ensure that other resident fish measures would not take
20 budget precedence over resident fish substitution measures, although these would share top priority
21 with rebuilding efforts for weak but recoverable native fish populations. The Council does not
22 expect that the slightly hierarchical statement of the highest priorities will lead to the funding of native
23 fish rebuilding measures and not of resident fish substitution measures, at least as related to the
24 blockages above federally operated hydropower projects (an issue described further below). For
25 one thing, these two types of measures are not necessarily distinct -- resident fish substitution
26 activities by the UCUT Tribes and others often involve protecting and boosting populations of native
27 fish, and many of these activities can and should fit within either of the highest priority categories.
28 More important, while the Council recognizes that in these times of budget shortfalls not all resident
29 fish measures will be funded, the combination of the budget allocation formula adopted by the
30 Council (see Section 2.2F) and the way in which the Council described these two highest priorities
31 means that both the rebuilding measures for weak but recoverable native fish populations and the
32 resident fish substitution activities above federally operated projects should be funded. The
33 Council's clear intent is that resident fish substitution activities also be funded. If the result of the
34 Council's priority language is the funding of rebuilding efforts for weak but recoverable native fish
35 populations and not of substitution measures (or vice versa), the Council will take action to address
36 this situation.
37

38 Second, the UCUT Tribes are also concerned that a top priority for the rebuilding of weak
39 but recoverable native fish populations could prevent implementation of substitution activities out of
40 a concern for their biological and genetic impact on native populations. Again, the Council does not
41 expect this potential conflict to be as significant in practical application as the UCUT Tribes fear.
42 The Council has not been made aware of any conflicts between rebuilding efforts for weak but
43 recoverable native fish populations and almost all of the substitution measures already in the

1 program or adopted in this rulemaking. As noted above, most of the planned substitution activities
2 involve boosting or protecting native fish populations at harvestable levels. Many of these measures
3 can be characterized as efforts to rebuild to sustainable levels previously healthy but now weak
4 native populations, fitting either of the two highest priority categories. And where the substitution
5 efforts are intended to protect and enhance what are already viable native fish populations, the
6 Council is unaware of any serious conflicts with the rebuilding of weak native fish populations.

7
8 On the other hand, the UCUT Tribes have a valid point that developing a viable
9 replacement fishery with naturally sustaining fish populations has to take into account the vastly
10 altered ecosystems, which may not allow in every instance the rebuilding of native fish populations,
11 at least to harvestable levels. The Council recognized this point in the statement of the resident fish
12 goal (Section 10.1) and in sheer fact of the elevation of resident fish substitution activities above the
13 blockages caused by federally operated hydropower development (involving native fish or
14 introduced fish) to the highest priority category. The UCUT Tribes recommend a number of efforts
15 at habitat restoration and enhancement aimed at improving conditions for native fish rebuilding
16 efforts, using introduced fish for interim fisheries to be superseded by the development of viable
17 native fisheries (for example, this is the intent of the Coeur d'Alene Tribe's combined habitat
18 restoration program and trout pond proposal, Section 10.8B.36). In addition, most of the
19 substitution activities that involve introduced fish, either as interim fisheries or as permanent
20 replacements in irreparably altered ecosystems, have not been identified as in conflict with native
21 population rebuilding efforts, based on the information and comments that the Council has received
22 in this rulemaking. Other fish managers raised concerns, in the comments, about just two of the
23 specific resident fish substitution proposals for Section 10.8 -- the Kalispel Tribe's proposal to
24 increase the production of largemouth bass in the Box Canyon reach, which may interfere with
25 efforts to rebuild native cutthroat and bull trout (MDFWP and CSKT), and the Colville Tribes' plan
26 to increase production of Lahontan cutthroat and brook trout, which also may be inconsistent with
27 bull trout and westslope cutthroat trout rebuilding (WDFW and IDFG) and even with the efforts of
28 the Kalispel Tribe to eradicate exotic brook trout (Section 10.8B.32). And even these two very
29 focused concerns are as yet only potential -- the measures look incompatible, but have not been
30 shown to be incompatible -- while other potential conflicts may exist but have not been identified.

31
32 Potential conflicts between rebuilding efforts for weak but recoverable native fish
33 populations and resident fish substitution efforts using introduced fish require serious evaluation, with
34 the aid, for example, of the American Fisheries Society's guidelines or other professional guidelines
35 for ensuring that artificial production activities do not undermine native population conservation.
36 However, resident fish substitution proposals using introduced fish have not and should not be
37 terminated or de-ranked in prioritization on this basis alone, without further information
38 demonstrating the conflicts. In Section 10.2A, the Council has called for the natural and artificial
39 propagation activities efforts in the resident fish portion of the program, which should generally
40 include efforts to introduce and produce non-native fish, to address genetic and ecological impacts
41 on wild and naturally spawning fish species. Compliance with this section can occur if these issues
42 are addressed in NEPA review processes or other, similar types of environmental review, in which
43 potential conflicts are analyzed and weighed. See Program Section 10.2A, and the findings for that

1 section. And, the Council has provided, in the "high priority" category in Section 10.1B, that among
2 resident fish substitution measures, those that make a showing that they will take every reasonable
3 precaution not to adversely affect habitat for native anadromous or resident fish should receive a
4 higher priority.
5

6 Finally, assuming that some proposals for substitution activities using introduced fish may run
7 afoul of native fish rebuilding efforts, the Council's native fish priority statement applies to efforts to
8 "rebuild to sustainable levels" weak but recoverable native fish populations. The Council has no
9 interest in a program that does nothing more than simply protect native fish populations from
10 extinction at a non-fishable level, to the exclusion of developing thriving fisheries by substitution.
11 The Council's goal (stated in Section 10.1), in accord with that of the UCUT Tribes and the other
12 managers in the region, is to meet the consumptive or harvest needs of the people in this region,
13 while respecting the link between genetic diversity and long-term population productivity. The
14 challenge will be for the fish managers to meet two partially overlapping, primary priorities --
15 rebuilding weak but recoverable native fish populations to healthy, naturally sustainable levels and
16 developing viable native and non-native substitution fisheries that are not inconsistent with the other
17 priority.
18

19 For these reasons, the Council intends by its statement of the highest priorities for native
20 population rebuilding and for resident fish substitution that both occur, and that native fish rebuilding
21 efforts not undermine substitution activities, or vice versa. The obvious question then is why the
22 Council chose nonetheless to give primacy, if slight, to the priority for native resident fish rebuilding
23 efforts. The Council is persuaded, based on the wealth of information submitted in this rulemaking
24 and especially in the past anadromous fish and resident fish rulemakings since 1991, that the
25 destruction of the basin's native, wild biological and genetic diversity is a serious problem. This
26 applies to the important native resident fish populations as well as wild salmon populations. This
27 policy is reflected throughout the program -- e.g., the Council's anadromous fish goal is to double
28 salmon and steelhead runs without loss of biological diversity (Section 4.1). That is, the Council's
29 goal is to increase salmon populations to provide for harvest opportunities (just as it is to provide for
30 resident fish substitutions to allow for harvest opportunities above the blocked areas), but to do so
31 while protecting and rebuilding wild and naturally spawning native populations. By its revisions to
32 Section 10.1 (goal) and 10.1B (priorities) the Council intends to recognize this policy in the resident
33 fish portion of the program. The Council could have stated this policy in various ways, but chose
34 the slightly hierarchical statement of the highest priorities to clarify the central point -- the Council
35 wants to see the region aggressively develop substitution fisheries in the areas where salmon are
36 blocked, but not to do so in such a way as to undermine the long-term productivity of wild and
37 naturally spawning native fish populations.
38

39 The UCUT Tribes commented that the fish managers had achieved a consensus on the
40 priority language in the reconciled framework submitted by CBFWA, to which the Council should
41 defer. While a consensus may have been reached at one point, that consensus again did not hold.
42 The UCUT Tribes, the Colville Tribes, the Washington Department of Fish and Wildlife and the
43 Confederated Salish and Kootenai Tribes all stated their support in comments for the priority

1 language in the reconciled framework. But the Salish-Kootenai Tribes, in comments on Section
2 10.8, opposed objectives and measures for introduced largemouth bass that could conflict with
3 rebuilding efforts for native bull trout and westslope cutthroat trout, while the Washington
4 Department of Fish and Wildlife similarly commented that objectives for introduced Lahontan
5 cutthroat and brook trout are to be achieved only if consistent with rebuilding efforts for native bull
6 trout and westslope cutthroat trout. Similarly, while the Idaho Department of Fish and Game's
7 comments on Section 10.1 focused only on achieving equal treatment for substitution activities
8 above Hells Canyon Dam, IDFG also objected to resident fish biological objectives and measures
9 for introduced trout with the potential to interfere with rebuilding efforts for native trout. The
10 Oregon Department of Fish and Wildlife, the Columbia River Inter-Tribal Fish Commission, the
11 Umatilla Tribes, and the Burns Paiute Tribe all disagreed with a priority statement that equalized
12 resident fish substitution with weak native population rebuilding, and some would not even accord
13 resident fish substitution any special priority. The Montana Department of Fish, Wildlife and Parks
14 said that neither priority should be the highest, suggesting that the highest priority should be
15 protecting healthy native populations, with protection of weak but recoverable populations second,
16 and protection and introduction of non-native fish ranked below the priorities focusing on native fish.
17 MDFWP also echoed the objections of the Confederated Salish and Kootenai Tribes about
18 largemouth bass objectives undermining native trout rebuilding.

19
20 Thus, the UCUT Tribes' recommendation must be considered in the light of a conflict
21 among the fish managers, even in the upper parts of the basin. It is not that the Council is choosing
22 among the fish managers whose position to support. Rather, the Council is persuaded that stating
23 the resident fish priorities as it has makes sense based on the information and arguments it has seen
24 and is consistent with the approach the Council has taken throughout the program. This decision is
25 consistent with the views of many of the fish managers. For these reasons the Council concludes
26 that its revised priority language is more effective than the recommended language in leading to the
27 protection, mitigation and enhancement of resident fish, 16 U.S.C. §839b(h)(7)(C), and better
28 complements the activities of all the region's federal and state fish and wildlife agencies and Indian
29 tribes, 16 U.S.C. §839b(h)(6)(A), (7)(B).

30
31 One other revision the Council made concerns the second of the two highest priorities,
32 relating to the blocked areas. The UCUT Tribes' recommendation applied this highest priority to
33 resident fish activities in the blocked area above Grand Coulee/Chief Joseph dams. The reconciled
34 framework took a different view -- the highest priority language for activities above blocked areas
35 was to apply to three areas, above Grand Coulee/Chief Joseph, Hells Canyon and Dworshak
36 dams. Among those areas none had special priority over the others. The Council revised this
37 language to state that one of the highest priorities would be resident fish substitution measures in
38 areas that previously had salmon and steelhead but where anadromous fish are now permanently
39 blocked by federally operated hydropower development. Substitution activities in areas blocked by
40 federally licensed or regulated hydropower development would be listed as one of the "high"
41 priorities. The program currently contains provisions for substitution activities above federally
42 operated projects (Grand Coulee/Chief Joseph and Dworshak) and above federally licensed and
43 regulated projects (Hells Canyon and Pelton). All are of merit biologically; the Council chose to

1 distinguish between the projects in the priority levels assigned for reasons related to these times of
2 budget shortfall. If Bonneville ratepayer funding is only sufficient to fund some of the resident fish
3 substitution activities, the Council believes that funding should be directed where the federal power
4 system responsibility is clearest, at the areas where salmon and steelhead have been blocked by
5 direct federal hydropower development.
6

7 The UCUT Tribes recommended explanatory language, and commented that the
8 substitution activities proposed for the area above Grand Coulee/Chief Joseph deserve special
9 priority because the blockage problem above Grand Coulee/Chief Joseph has existed for fifty years,
10 longer than the others, the resulting impacts are greater, a set of proposed substitution activities have
11 awaited implementation for some time, and the fish managers in this area have developed the only
12 comprehensive biological objective framework in the program to support the measures. The
13 Council generally agrees with the UCUT Tribes' comment, and for this reason the proposed
14 substitution activities for the area above Grand Coulee/Chief Joseph dams should be given priority
15 in the implementation planning/project prioritization process when compared to most or all other
16 resident fish substitution activities (see Section 3.1B). But the program is stating a general standard
17 for program and project development over time. Over that longer run, the problems faced by all the
18 blocked areas are fairly similar. There is no reason to inflexibly downgrade the substitution needs
19 and proposals from any particular blocked area, although the Council has taken steps, as noted
20 above, to state a priority difference for times of budget shortfall.
21

22 On a related point, the Montana Department of Fish, Wildlife and Parks and others
23 wondered whether the draft rule language stating a priority for "resident fish projects in the blocked
24 area above Chief Joseph/Grand Coulee . . . dams, including resident fish substitution and resident
25 fish projects," applied to the resident fish mitigation projects in Montana. The Council revised this
26 priority language not to refer to all the resident fish projects in particular geographical areas, but
27 instead to resident fish substitution measures in areas where salmon were once present but are now
28 permanently blocked, which does not include the relevant areas in Montana. The Montana
29 mitigation projects do not include substitution activities, and they focus on rebuilding and protecting
30 native fish populations. The Council's priority language also includes in the highest priority category
31 rebuilding efforts for weak but recoverable native fish populations, with a high priority for efforts to
32 protect the health of other existing resident fish populations, without geographical specificity.
33

34 These discussions cover not only the revised "highest priority" language in Section 10.1B,
35 but also explain most of the changes the Council made to Sections 10.1 (goal), 10.1A (principles)
36 and 10.1B (priorities). These changes were made to conform the language to the Council's view of
37 the importance of and the relationship between rebuilding efforts for weak native populations and
38 resident fish substitution activities and to the Council's view of the blocked areas involved. The
39 Council puts special emphasis on projects with the characteristics referred to in the "highest"
40 priorities. "High" priority factors may add weight to any proposed project, including even more
41 weight to a project that fits into either of the "highest" priority categories. Most of the other changes
42 were made for a related editorial reason -- the Council decided that both its existing program
43 language and the recommended frameworks did not clearly distinguish between resident fish

1 mitigation activities and resident fish substitution activities, or clearly explain the differences. The
2 revised language is attempting to make those distinctions clear. The Council did not intend by these
3 latter revisions to alter the substance of the recommended language, except for the two specific
4 points noted.
5

6 The Council substantially adopted the other portion of the recommended framework --
7 Section 10.1C, calling for the development of biological objectives -- with various editorial revisions
8 not intended to alter the substance of the recommended language and one modification. The
9 language adopted is intended to be consistent with, and interpreted in the context of, the Council's
10 general understanding of the meaning and role of "biological objectives," which the Council analyzed
11 at length in the 1994 anadromous fish rulemaking: The Act does not require that the Council adopt
12 discrete, quantified biological objectives before it may adopt measures into the program and call for
13 their implementation. Biological objectives under the Act may be discrete and quantified or they
14 may be narrative and qualitative, as in a statement of a biological problem to be addressed, the
15 biological end desired in a specific section of the program, or the biological purpose of a measure.
16 However, the Council believes that program measures would have a more substantial foundation,
17 and could be better monitored and evaluated, if the measures address specific, discrete, quantified,
18 biologically based objectives. As noted in the text, what these types of objectives do is relate the
19 needs of resident fish to the development and operation of the hydropower system in a quantified
20 way. Biological objectives of this type for resident fish could describe environmental or population
21 attributes necessary to achieve the protection, mitigation and enhancement of the specific fish
22 population or populations at issue by, for example, stock-specific numerical goals for a project or
23 affected area, or specific numerical population parameters (e.g., number, age, composition, desired
24 overall survival rate of a particular life stage, etc.), or specific environmental conditions to be
25 achieved. Biological objectives (or rebuilding schedules, if the objectives are part of a larger
26 population schedule) should include time tables for achievement. And, resident fish biological
27 objectives developed and adopted into the program, as with resident fish measures, should be
28 consistent with the goals, principles and priorities stated in Sections 10.1, 10.1A and 10.1B.
29

30 Biological objectives adopted into the program are not intended by the Council to be the
31 definitive resolution of biological issues or biological needs. The Council considers biological
32 objectives to be the benchmarks, based on the best available scientific knowledge, established by
33 the fish managers most involved and interested in the management of the affected populations. The
34 objectives are to be tested and reevaluated as the measures are implemented and monitored and
35 evaluated.
36

37 The Act does not specify any particular or special process for the Council's review and
38 adoption of recommended discrete, quantified biological objectives. But because of the scientific
39 complexity of this type of biological objective, and the need to ensure that recommended objectives
40 are based on the best available scientific knowledge, the Council revised Section 10.1C to state
41 that, in the future, specific biological objectives should receive peer review before being adopted
42 into the program. Examples of such "peer review" might include review by CBFWA's Resident
43 Fish Committee, by most or all of the fish managers of the region through CBFWA or some other

1 mechanism, by groups of outside experts, or review through some other arrangement suited to the
2 characteristics of the particular project. Simpler, straightforward projects would not merit as
3 sophisticated a peer review process as projects that are more scientifically complex or broader in
4 scope.
5

6 Pursuant to Section 10.1B, resident fish measures that address specific biological objectives
7 that the Council has adopted into the program are to receive a higher priority in implementation
8 prioritization than measures that do not. This priority statement applies to projects that address the
9 specific resident fish biological objectives now in the program, such as the specific biological
10 objectives for the substitution activities above Grand Coulee/Chief Joseph dams recommended by
11 the UCUT Tribes and adopted in this rulemaking in Section 10.8B, and measures that address any
12 future biological objectives adopted into the program after peer review. To assure that the
13 implementation prioritization process treats the anadromous fish and resident fish portions of the
14 program alike, the Council added a similar priority statement to the salmon and steelhead rebuilding
15 principles in Section 4.1A.
16

17 Bonneville commented that biological objectives for resident fish that Bonneville's ratepayers
18 will be asked to meet need to relate to actual losses caused by the hydropower system, while the
19 Confederated Salish and Kootenai Tribes and others also emphasized the need for the development
20 of loss assessments. The Council agrees, and modified the program accordingly. Specific resident
21 fish biological objectives should in some fashion address the quantified assessments of hydropower-
22 caused losses. At the same time, Bonneville and others commented that in these times of budget
23 limitations, mitigation and substitution projects may take priority over the completion of the loss
24 assessments. The Council acknowledged these points by stating in Section 10.1C.3 that project
25 implementation should not be delayed pending the completion of loss assessments, discussed in
26 more detail below.
27

28 In the final amendments, in response to comments from IDFG and its own review, the
29 Council reinstated language from the 1994 program that was left out of the reconciled framework
30 and the draft rule calling for Bonneville to fund the completion of the resident fish loss assessments.
31 The Council also added that Bonneville is to fund the development of biological objectives.
32 Bonneville also noted the need for a crediting system, to be able to determine to what extent existing
33 and future resident fish mitigation and substitution have addressed hydropower losses. The Burns
34 Paiute Tribe and the Shoshone-Bannock Tribe recommended the development of a crediting
35 system, and the Council adopted the provisions of Section 10.1D to call for the development of a
36 crediting methodology that represents a revised version of the Tribes' recommendation (described
37 in more detail below, in the findings on the Tribes' recommendation). The Council does not intend
38 that mitigation or substitution measures should be delayed pending the development of the loss
39 assessments, biological objectives or the crediting methodology, given the Council's judgment that
40 the region is at present a long way from mitigating and substituting for the impacts of the
41 hydropower system. As important as the loss assessments ultimately are, only when there is some
42 real question about the federal hydropower system's responsibility for a proposed mitigation activity

1 will it be necessary to complete the loss assessments and tie these to objectives and measures
2 before the Council can call for the adoption or implementation of a proposed measure.

3
4 In response to other comments: The Council agreed with Bonneville that the language of the
5 Act -- protect, mitigate and enhance -- should be used instead of the term protect, restore and
6 enhance in the statement of the resident fish principles in Section 10.1A. The Council revised the
7 language accordingly. The Council also revised the principles for resident fish mitigation in Section
8 10.1A to add protection from the impacts of "temperature modifications" as suggested by the
9 Montana Department of Fish, Wildlife and Parks. And in response to a comment from the
10 Okanogan County PUD, the addition to the introductory language in Section 10, when read in
11 context with the rest of the sentence it is added to, states that reservoir discharges "may . . . entrain
12 substantial numbers of fish." The Council does not mean to imply that it has been demonstrated that
13 hydroelectric projects entrain substantial numbers of fish. Finally, the Council revised what was
14 Section 10.2D [now Section 10.1E], Project Implementation and Selection, to call for
15 implementation of the resident fish projects in the program by 2006, as stated in the UCUT Tribes'
16 recommendation.

17
18 For all of these reasons, the Council concludes that the recommendations were less effective
19 than what the Council has adopted for the protection, mitigation and enhancement of fish and
20 wildlife, 16 U.S.C. §839b(h)(7)(C), because the Council considers that what it has adopted better
21 complements the activities of all the region's federal and state fish and wildlife agencies and Indian
22 tribes, 16 U.S.C. §839b(h)(6)(A), (7)(B), and because what the Council adopted is more
23 consistent with the Council's obligations under the Act as regards biological objectives and the
24 responsibility of ratepayers to fund mitigation of the impacts of federal hydropower development, 16
25 U.S.C. §839, 839b(h)(1), (2), (5), (6), and (8).

26
27
28
29 **Program Section(s):** **10.1B (priorities)**
30 **Source:** Columbia River Alliance
31 **Recommendation No.:** 95-2/0088
32

33 **Recommendation:** The Columbia River Alliance recommended adding a new set of
34 priorities for the resident fish program to the existing set of priorities in what was Section 10.2A.1
35 [now Section 10.1B], as follows:

36
37 "Federal power system operators should be precluded from taking management actions that
38 will negatively affect major and beneficial resident fish populations, as a direct result of proposed
39 system measures for salmon or steelhead recovery and enhancement. These actions concern all
40 federal project reservoirs on the Snake-Columbia River system relative to operating conditions prior
41 to the Endangered Species Act listing of weak Snake River chinook and sockeye runs (1990 base
42 period).
43

1 "Management actions affecting major and beneficial resident fish include such actions to
2 protect, enhance, or mitigate for anadromous fish species. Federal resource management actions
3 for Snake-Columbia River salmon stocks should not adversely affect resident fish populations, or
4 force major and beneficial resident fish stocks to be traded-off for anadromous fish runs.
5

6 "Negative actions would include federal hydroelectric power system reservoir drawdowns,
7 or flow enhancement-related measures that would adversely affect major and beneficial resident fish
8 populations."
9

10 **Draft:** Not included in the draft rule.
11

12 **Comment:** Public Utility District No. 1 of Okanogan County stated that it agreed with the
13 views and comments of the Columbia River Alliance in this rulemaking. (222)
14

15 The Benton County PUD, Kennewick, Washington, submitted a comment that repeated the
16 first two paragraphs of the recommendation. (244)
17

18 The Umatilla Electric Cooperative submitted a comment that repeated and supported the
19 first paragraph of the recommendation. (236)
20

21 As part of comments aimed primarily at opposing the proposed John Day drawdown,
22 the Oregon Water Coalition, Hermiston, Oregon, commented that if the dams truly are a major
23 cause of the loss of the anadromous fishery, they are also "the major cause of the growth of the
24 resident fish and wildlife" as well as the human economy and population of the region. "The
25 Columbia River in its present mode is beneficial to an increasing resident fish and wildlife
26 population," which has important implications for recreation, tourism, transportation and local
27 economies. The Council should adopt only those fish and wildlife measures that add benefits to
28 this system "without adverse impact to what has been beneficial to the majority of species,
29 including humans." (203)
30

31 **Findings:** The Council rejected this recommendation as less effective than what has been
32 adopted in ensuring the protection, mitigation and enhancement of anadromous fish, resident fish and
33 wildlife, 16 U.S.C. §839b(h)(7)(C), and because it does not complement the activities of the
34 region's fish agencies and tribes, 16 U.S.C. §839b(h)(6)(A), (7)(B). The Council is charged with
35 finding a balance between the needs of fish and wildlife and regional power. To the extent that
36 efforts to restore depleted salmon runs have the potential to adversely affect resident fish
37 communities, the Council must also find the balance between anadromous and resident fish and seek
38 to protect, mitigate and enhance both, and not simply trade-off one for the other. This has been one
39 of the aims of the Council, with the assistance and recommendations of all the region's fish and
40 wildlife managers, in this rulemaking process and in the anadromous fish program amendments in
41 December 1994. Thus, for example, the Council called in December for adoption of the integrated
42 rule curves developed by the fish and wildlife managers in Montana for the operation of Libby and
43 Hungry Horse reservoirs, intended in part to protect resident fish communities from too-deep

1 reservoir drafts for anadromous fish flows. For the same reason, the Council has called, in this
2 rulemaking, for the operation of Grand Coulee to meet specified reservoir elevations and water
3 retention times, for the development of biologically based rule curves at Grand Coulee and
4 Dworshak dams, and for monitoring and evaluation programs to determine what impacts salmon
5 flows are having on resident fish under these and other operating criteria. The Council has also
6 revised the measures in Section 5 concerning the Fish Operations Executive Committee and the Fish
7 Passage Center to incorporate consideration of the needs of resident fish and upriver storage
8 reservoir operating constraints into decisions on river operations.

9
10 The Council has adopted these and other relevant program amendments in response to
11 concerns, recommendations and consultations with the state, federal and tribal fish and wildlife
12 managers. The fish managers have not called for a generic standard of "no adverse impact." This
13 would have little meaning, as it would beg the question of what impacts are in fact occurring and
14 what steps need to be taken to avoid adverse impacts, necessitating all of the variety of adaptive
15 management measures anyway. Such a standard instead could simply paralyze decisionmaking in
16 search of the impossible absolute. The fish managers have been working with the Council on an
17 active and various program of specific measures in an attempt to ensure that resident fish
18 communities are not undermined by anadromous fish measures. The Council has given due weight
19 to the recommendations of the fish managers and deems them more effective in protecting, mitigating
20 and enhancing both types of fish than the Alliance recommendation.

21
22 The recommendation also presents problems because it calls for no adverse impact on
23 resident fish from anadromous fish flows, while it is silent on and thus presumably approving of a
24 balancing of adverse impacts from power operations. Such a standard would be inconsistent, and
25 by itself highlights instead that the Council's responsibility is to try to balance and coordinate the
26 various aspects of the system, protecting, mitigating and enhancing anadromous fish, resident fish
27 and wildlife, while assuring an adequate, efficient, economical and reliable power supply.

28
29
30
31 **Program Section(s): 10.1D (crediting new and existing mitigation)**

32 Source: Burns Paiute Tribe

33 Recommendation No.: 95-2/0035

34 Source: Shoshone-Bannock Tribes

35 Recommendation No.: 95-2/0037

36
37 **Recommendation:** The Burns Paiute Tribe and the Shoshone-Bannock Tribes
38 recommended adding a new section to systematize the way in which credit is given for mitigation. It
39 would begin by calling on the Council to consult by February 1, 1995 with the fish managers, the
40 Corps, Reclamation and Bonneville, "to determine the amount of credit to be given for existing
41 resident fish substitution and mitigation projects undertaken in association with all federal dams.
42 Credits for substitution or mitigation effort will be interchangeable and are to be accrued and
43 apportioned relative to the quantified losses being mitigated.

1
2 Then in two following sections, the resident fish managers and Bonneville are, by June 1995,
3 to develop a "consistent, systemwide method for crediting new resident fish mitigation actions,"
4 which will reflect as a central principle that "some fish habitat projects provide benefits to wildlife
5 resources as well as fish. Because of this, the Council calls upon Bonneville and the fish and wildlife
6 managers to develop a method for integrating comprehensive fish and wildlife loss/gain assessments
7 and for crediting wildlife benefits from fish projects." A final section would call on Bonneville and
8 other relevant entities to fund ongoing projects "originally listed as resident fish substitution measures
9 in the council's Program that may also be appropriate as resident fish mitigation measures."
10

11 **Draft:** Not included in the draft rule; this recommendation was included in the draft rule
12 appendix "Other Amendment Recommendations On Which the Council Specifically Invites
13 Comment," as a proposed new Section 10.2E.
14

15 **Comment:** The Shoshone-Bannock Tribes and the Burns Paiute Tribe submitted as
16 comments a revised version of the recommended language and encouraged the Council to adopt the
17 revised language into the program. In the revised version, proposed Section 10.2E.1 was
18 unchanged except to change the date for initiating consultation to October 1, 1995. Section
19 10.2E.2 continued to call for the development of a consistent, systemwide method for crediting new
20 resident fish mitigation actions, although the date for development had been changed to April 1996.
21 The principle to be reflected in the new method was completely revised (and made a part of
22 proposed Section 10.2E.2, with no Section 10.2E.3 or 10.2E.4) to state that the obligation of the
23 hydropower system to protect, mitigate and enhance resident fish affected by hydropower "will be
24 discharged when these effects are fully addressed, i.e., when mitigation actually offsets the loss
25 caused by a hydropower facility and when the operator provides adequate operation and
26 maintenance funding to sustain the mitigation for the life of the hydroelectric project. Mitigation
27 agreements may predict a certain level of mitigation, as long as provision is made for operation and
28 maintenance funding and for monitoring and evaluation to determine if the predicted benefits were
29 realized." The previous reference to wildlife benefits was omitted. (195, 218)
30

31 The Oregon Department of Fish and Wildlife suggested that the measures recommended
32 "be clarified and made more specific to the issue and location." (234)
33

34 The UCUT Tribes supported the resident fish/wildlife integration concept underlying in part
35 the original recommendation, noting that the Council has a principle encouraging wildlife project
36 sponsors to design and submit projects that also benefit fish (see Section 11.2D.1), but no
37 corresponding principle preferring anadromous fish and resident fish projects that benefit wildlife.
38 The Tribes stated that it makes sense and is cost effective to view fish projects in this way as well,
39 which should have the added benefit of encouraging more habitat protection for fish instead of
40 artificial production. (159)
41

1 Bonneville did not comment directly on the recommendation, but noted in comments on the
2 recommended framework that the resident fish program needed to develop a crediting system.
3 (229)
4

5 **Findings:** The Council adopted a simplified version of the revised language submitted by
6 the Burns Paiute and Shoshone-Bannock Tribes, as new Section 10.1D. As discussed above, in
7 the findings on the Section 10 framework, Section 10.1C calls on the fish managers to produce
8 resident fish loss assessments for the Council to review and adopt into the program. The fish
9 managers and Bonneville need to begin work on developing a consistent, coordinated method for
10 crediting existing and future mitigation against those losses. This is the purpose of the language
11 adopted by the Council. The Council's measure retains the substantive language on the mitigation
12 principles that the Tribes submitted (which corresponds to the crediting principles language in
13 Section 11.3C in the wildlife portion of the program). The Council modified the suggested language
14 to remove what appeared to be an unnecessary distinction between credit for existing and future
15 mitigation, and to make the process for development and review of the crediting system consistent
16 with the process suggested for the loss assessments in Section 10.1C.
17

18 Neither the Tribes' revised language, nor the Council's adopted provision, specifically refers
19 to the fact that the crediting system should include a method for recognizing and taking into account
20 that some projects provide both resident fish and wildlife benefits. The Council expects that an
21 appropriate proper crediting system will include that factor.
22

23 On this basis, the Council concludes that it adopted the substance of the recommendation,
24 with modifications in the revised language submitted by the Tribes that are intended to simplify the
25 measure and make it easier to implement. For this reason, the Council finds that what it has
26 adopted is more effective than the recommendation in protecting, mitigating and enhancing resident
27 fish, 16 U.S.C. §839b(h)(7)(C).
28
29
30

31 **Program Section(s): 10.1E (project implementation/funding levels)**

32 Source: Kalispel Tribe of Indians and Spokane Tribe of Indians

33 Recommendation No.: 95-2/0084
34

35 **Recommendation:** The Kalispel Tribe and the Spokane Tribe recommended a new
36 provision for what was Section 10.2D [now Section 10.1E] stating that beginning in October 1995
37 Bonneville will fund resident fish measures at a level of 15 percent of its fish and wildlife budget.
38

39 **Draft:** As described above, the draft rule included an "at least" 15 percent funding level for
40 resident fish in Sections 2, 3 and 10, in response to other recommendations, including from the
41 UCUT Tribes of which the Spokane and Kalispel Tribes are members. This recommendation was
42 in effect superseded by the Section 10 program framework recommendation submitted by the

1 UCUT Tribes and then by the CBFWA reconciliation version of the program framework, described
2 above.

3
4 **Comment:** Comments regarding the recommended funding levels have been summarized
5 above at the findings for Section 2.F.

6
7 **Findings:** The Council adopted the budget allocation formula in the draft rule, at Section
8 2.2F.1. See the findings for Section 2.2F.1.

9
10
11
12 **Program Section(s):** 10.2A, 10.2B (artificial production/watershed activities)
13 Source: Upper Columbia United Tribes (Spokane, Coeur d'Alene, Kalispel and
14 Kootenai Tribes)
15 Recommendation No.: 95-2/0076
16

17 **Recommendation:** The UCUT Tribes' policy and biological framework recommendation
18 also included proposed revisions to what were Sections 10.2B and 10.2C in the 1994 program
19 [now Sections 10.2A and 10.2B]. (This portion of the recommendations also recommended a
20 revision of Section 7.7A, Coordination of Watershed Activities, described above in the findings on
21 Section 7.)
22

23 The UCUT Tribes recommend revising and reducing Section 10.2A, concerning Natural
24 and Artificial Propagation, to state a concern for the potential adverse impacts of artificial
25 production and thus to provide that new supplementation measures may not be approved or
26 implemented until the fishery managers produce comprehensive master plans and NEPA-type
27 analyses for public review. The UCUT Tribes also recommended revising Section 10.2B,
28 concerning Comprehensive Watershed Management, to note especially that habitat enhancement in
29 one place may be worthless if other activities in the watershed continue to degrade habitat. Thus
30 before the Council approves and Bonneville funds new habitat enhancement measures, fishery
31 managers must develop a habitat master plan for the watershed and NEPA-type analysis for public
32 review, including consultations, agreements and coordination among all the regulatory entities and
33 public and private landowners in the watershed.
34

35 **Draft:** This portion of the UCUT Tribes' recommendation has been treated separately
36 since neither the resident fish program frameworks recommended by the other entities nor the
37 CBFWA reconciliation version of the framework involved these sections of the program. The
38 Council did not include the recommended revisions in the draft rule, but did include them in the draft
39 rule appendix "Other Amendment Recommendations On Which the Council Specifically Invites
40 Comment."
41

42 **Comment:** The UCUT Tribes collectively and one of its members, the Coeur d'Alene
43 Tribe, reaffirmed their support for the UCUT Tribes' recommendation, and further explained its

1 purpose. The Coeur d'Alene Tribe noted that Sections 10.2A, Natural and Artificial Propagation,
2 and 10.2B, Comprehensive Watershed Management, subject production and watershed habitat
3 activities for resident fish to a number of the procedural and substantive requirements for
4 anadromous fish set out in Section 7. These include Section 7.1D.1 (wild and naturally spawning
5 population policy/plan for genetic diversity); Sections 7.2A.1 and 7.2A.5 (development of
6 basinwide guidelines to minimize genetic and ecological impacts of hatchery fish on wild and
7 naturally spawning fish/IHOT); Section 7.3A.1 (process for regional assessment of supplementation
8 projects); Sections 7.4A.1, .7.4B.1 and 7.4C.1 (use of coordinated habitat and production process
9 to identify, evaluate and implement new production initiatives/comply with NEPA or develop
10 NEPA-like master plans in the absence of NEPA application to evaluate new production projects);
11 and Section 7.7 (implement cooperative habitat protection and improvement in model watershed
12 and other watershed processes involving private landowners and others). The Tribe objected to the
13 extent of process, the level of duplication in these processes and the costs of the processes in time
14 and money. The Tribe contended that these various processes could and should be replaced (for
15 the resident fish program at least) with a simplified call for a NEPA or NEPA-like master planning
16 process for new production and habitat activities, which project proponents would have to
17 undertake in any case and which could be sufficiently comprehensive to consider and respond to all
18 potential genetic, ecological and other environmental consequences of proposed actions. This type
19 of project planning process would be used in conjunction with the simplified implementation planning
20 process recommended by the UCUT Tribes. The Coeur d'Alene Tribe believes this could reduce
21 project planning from three to four years to one year, and that the Council language "will likely
22 create substantially longer delays before on the ground mitigation is initiated to restore or enhance
23 resident fish stocks that are already in severe decline, especially westslope cutthroat trout stocks on
24 the Coeur d'Alene Reservation."
25

26 The UCUT Tribes added that the recommended language is intended to address the same
27 biological concerns as the existing language but allow implementation to occur with fewer delays.
28 The Tribes also emphasized the language they added calling for each project master plan to include
29 a description of biological objectives and an assessment of how these relate to the losses
30 attributable to the hydroproject addressed. This is what the Council, Bonneville and the utilities
31 have been requesting for years, as the Act limits Bonneville's mitigation expenditures to losses
32 caused by the hydropower system.
33

34 The UCUT Tribes noted that they had recommended the deletion of the various provisions
35 in Sections 3 and 7 and the watershed and production language in Section 10.2 because these have
36 introduced complex layers of process and numerous redundant committees that are hampering
37 implementation and recovery. Their recommended watershed and production language substitutes
38 the integrated system plan for reliance "on a cumbersome set of watershed committees." The
39 Council has had the ISP for nearly five years, and it needs no further review. The Tribes
40 recommended deleting the watershed language in Section 7 because it duplicated what is already in
41 the ISP. The ISP can be implemented directly through the CBFWA workplan, consulting with the
42 Forest Service, the BLM, counties and others. Fishery managers should lead in the coordination of
43 watershed activities because they are the implementors of these projects; "[t]he decision for what is

1 to be done should now reside solely with the fisheries agencies and tribes, not another committee or
2 team.” The Tribes questioned where all of the process came from in the first place, as it is not and
3 has never been consistent with the management objectives of the agencies and tribes, the legal rights
4 of the tribes, or the ability of the managers to protect, restore and enhance fish and wildlife.
5 “[D]elayed implementation caused by redundant committee oversight and watershed management
6 teams is now a principle factor in causing further decline in fisheries.” The UCUT Tribes also noted
7 that their recommendation divided the basin into ecoregions instead of states with regard to
8 watershed issues, which makes more sense ecologically. This will also focus funding in the basin
9 and reduce the probability that ratepayers will pay for activities outside the basin.
10

11 Finally, the UCUT Tribes commented that they have provided extensive rationale for their
12 recommendations for this section, but have never seen or heard the Council’s rationale for the
13 existing language or for the Council’s decision not to place this recommendation in the draft
14 amendments. The Council’s language makes it extremely difficult to implement fish protection
15 measures approved by the Council, especially for Indian Tribes, and is thus not consistent with
16 Sections 4(h)(6)(A) and (D) of the Act. The UCUT Tribes’ language has addressed the concerns
17 of the Council while meeting the criteria of the Act and should be adopted. (178, 196)
18

19 The Shoshone-Bannock Tribes commented generally that the implementation planning and
20 prioritization process should emphasize interconnected basic programs and projects, such as low-
21 tech, low-profile fish and wildlife habitat and production efforts spread out over various parts of
22 watersheds to boost productivity of native species, rather than a few expensive, high-tech, large-
23 scale hatcheries and efforts to build non-native fisheries. (195)
24

25 The Burns Paiute Tribe submitted similar comments, noting that too much funding is going to
26 hatchery projects, which do not improve the ecosystem, and that an ecosystem approach must
27 emphasize improvements in habitat.
28

29 Artificial production and supplementation in particular. On the issue of artificial
30 production and supplementation, during the anadromous fish rulemaking process, and after the
31 Council called for recommendations for the resident fish program, the Council received a brief
32 comment letter from the Friends of the Wild Swan, a Montana group, stating the group’s concerns
33 about the potentially adverse effects of artificial production and supplementation on wild populations
34 of resident fish. After a general expression of concern, the letter directed these concerns toward
35 four specific provisions in the 1994 program (Sections 10.2B.4, 10.5A.4, 10.8, 10.8B.13),
36 although the letter did not recommend amendments to any provision or language in the program.
37 This comment letter has been entered into the resident fish and wildlife record (95-2/0016, dated
38 November 25, 1994), and its concerns were summarized with the recommendations, although the
39 letter does not qualify in a legal or technical sense as a recommendation for program amendments.
40 One main focus of the Friends of the Wild Swan, made particularly clear with regard to the artificial
41 propagation provisions of Section 10.2, was that a NEPA-type evaluation of supplementation
42 programs needed to occur before entities began implementing supplementation projects. The
43 UCUT Tribes’ recommended revision to Section 10.2 called for an extensive master planning and

1 NEPA-type process for any supplementation project approved by the Council. The Council
2 assumed that the UCU Tribes' proposal reflected the concerns expressed by the Friends of the of
3 Wild Swan (although it may be that the group would also like to see a programmatic EIS on the
4 supplementation concept rather than a series of project-specific assessments; the project-specific
5 assessments could be linked through cumulative effects analysis). The Council did not propose a
6 separate amendment to correspond to the comment letter from the Friends.

7
8 The Colville Confederated Tribes generally agreed with the principles expressed in the
9 existing section on artificial and natural propagation, including the references to Section 7.1 to
10 ensure protection of wild and naturally spawning populations, genetic diversity and biodiversity. The
11 Tribes did express concern that the section as it currently exists adds additional process to a
12 program that is already burdened by process. They are concerned about possible delays in project
13 implementation due to process or to controversy surrounding the requirements of the provisions of
14 Section 7.1. Thus the Colville Tribes recommended adding the following language: "However the
15 Council does not expect or encourage selective or delayed implementation of resident fish or
16 resident fish substitution measures in satisfying items in section 10.2A." (226)

17
18 The U.S. Fish and Wildlife Service commented generally that FWS continues to consider
19 supplementation an unproved technique fraught with disease, biological and genetic risks; that
20 supplementation should be used only in an experimental or limited fashion and not as a full-scale
21 production program; and that the best use for supplementation would be to develop fisheries in
22 areas with little potential for interaction with native fish. (140)

23
24 The American Fisheries Society, Oregon Chapter, generally opposed the deletion of
25 hatchery oversight and evaluation measures. (199)

26
27 Oregon Trout generally opposed any efforts to emphasize production and protection of
28 non-native fish, or even of hatchery populations of native resident fish, favoring instead policies and
29 actions geared toward naturally spawning native populations (168, 209). Similar comments came
30 from the Oregon Natural Resources Council. (231)

31
32 A number of individual commentors generally or specifically objected to recommendations
33 and proposals to favor or to introduce, protect and enhance non-native resident fish, such as
34 rainbow trout, walleye, perch and bass, because of the potential negative effects (competition,
35 predation, etc.) on native resident fish and because of the impacts on native anadromous fish (for the
36 same reasons and because of the possibility of flow changes, etc.). Commentors included Bhagwati
37 Poddar and Saradell Poddar, Astoria, Oregon; Sue Knight, Portland, Oregon; Scott Bischke,
38 Corvallis, Oregon; and -Steven M. Bruce, Boise, Idaho. (162, 165, 182, 211)

39
40 The Corps of Engineers commented that Sections 10.3C.7 (fish stocking in Dworshak and
41 the North Fork Clearwater) and 10.6A (trout stocking in Clearwater below North Fork) may be in
42 conflict with the policy on artificial propagation in Section 10.2A. It appears that the Corps referred
43 to the existing language of Section 10.2A, not the recommended revision of Section 10.2A. (224)

1
2 Watershed planning in particular. The American Fisheries Society, Oregon
3 Chapter, generally opposed the deletion of provisions for watershed planning and activities. (199)
4

5 Bonneville commented that the UCUT Tribes' comprehensive watershed management
6 recommendation appears unworkable and should not be adopted. First, it assumes, without having
7 specific proposals to consider, that Bonneville is the appropriate funding entity in all circumstances.
8 This must be determined on a measure-by-measure basis. Second, Bonneville is asked to fund the
9 resource managers to complete environmental assessments. Bonneville will determine what NEPA
10 compliance is necessary for each measure it implements, and will fund contractors and resource
11 managers as needed to achieve that compliance. Third, the proposal states that project master
12 plans are to include selection of biological objectives to be achieved. This is the opposite of what
13 the Act requires -- that biological objectives guide the selection of the project. (229)
14

15 Bonneville also commented generally that improvements in subbasin planning efforts should
16 cost less and approve projects faster. Each level of planning should identify and evaluate
17 alternatives, consider interactions and trade-offs, estimate annual and lifetime costs and biological
18 results; and relate closely to identified limiting factors and potential production capacity in each
19 system. It is, however, also critical to involve local landowners in the planning processes, as in
20 model watersheds. Thus any proposed improvements in subbasin and watershed planning should be
21 costed out and compared for their responsiveness to this criteria. There is also a need to look at
22 multiple appropriate funding sources for the subbasin and subregional planning effort; Bonneville's
23 funding and planning contribution should focus on regional coordination of funding and planning
24 efforts. (146)
25

26 The National Park Service, Coulee Dam Recreation Area, supported "an approach to
27 coordinating watershed planning efforts that requires habitat master plans for the watershed and a
28 NEPA-type analysis for public review, including consultations, agreements and coordination among
29 all the regulatory entities and public and private landowners in the watersheds." Such a process,
30 identified by the Service as in Section 7.7A, should apply across the basin as part of the
31 anadromous fish, resident fish and wildlife programs. (228)
32

33 The Oregon Department of Forestry commented generally that the Council should be
34 coordinating habitat and watershed planning, standards and activities with all interested entities
35 (federal EIS teams; state forestry agencies; local governments private landowners and forest users,
36 etc.) and should be calling for watershed planning processes that include the widest possible
37 affected public and private entities and people. (134)
38

39 Public Utility District No. 1 of Okanogan County commented that provisions regarding
40 watershed management should include a mandate to allow for input from all affected parties,
41 including local governments, fishermen and landowners affected by the Council's decisions. The
42 PUD suggested that the reason there has been little progress concerning some projects is because
43 the Council has failed to "sell" the program to the affected area. (222)

1
2 **Findings:** The Council did not adopt this recommendation. As the Council understands the
3 recommendation and the comments from the UCUT Tribes and the member tribes individually
4 (particularly the Coeur d'Alene Tribe), the Tribes do not object to the biological purposes
5 underlying the existing sections on natural and artificial propagation and comprehensive watershed
6 management (now at Section 10.2A and 10.2B). What they object to instead is what they perceive
7 as review processes related to these purposes that are too numerous, cumbersome and time
8 consuming. They recommend a simplified master planning process that uses the NEPA or a
9 NEPA-type process to evaluate proposed activities and their environmental impacts. The program
10 already provides for this, at least with respect to production planning, in Section 10.2A:

11
12 "To expedite implementation, where the following [i.e., the measures concerning production
13 planning for resident fish] are substantially addressed under the National Environmental
14 Policy Act and/or relevant state environmental policy acts, consider that process to be in
15 compliance with this section."
16

17 The Council strongly encourages the UCUT Tribes and others implementing resident fish
18 measures to avail themselves of this language, to use the NEPA process to analyze these production
19 issues in a comprehensive yet simplified review process focused on the proposed project. Most of
20 the measures in Section 10.2A actually call for general reviews and guidelines concerning
21 production and resident fish, and do not apply to specific projects. Although these measures are
22 important, implementation of specific resident fish projects need not await the completion of these
23 reviews and guidelines, if the issues raised are properly addressed in the NEPA-type analysis of the
24 proposed project, as the UCUT Tribes desire. The Council retained these provisions in part to
25 provide clear guidance as to the kinds of issues that the fish managers and others ought to address in
26 project planning, while leaving them free to follow the simplified review process. The Council
27 retained these measures as the Council continues to see value in completing the called-for reviews
28 and guideline development, to address the obviously continuing controversy and lack of consensus
29 in the region, including among the fish managers, as to the value and role of supplementation and
30 other forms of artificial production. These concerns are noted in the comments and in the findings
31 on the UCUT Tribes' related recommendation for Section 7, above, which are incorporated here.
32

33 The Council recognizes that the section on watershed management, Section 10.2B, does
34 not explicitly include the reference to use of the NEPA process. This does not mean that the same
35 principle does not apply. To the extent that NEPA or a NEPA-type process can be used to
36 analyze the habitat features and issues of a proposed resident fish project and reduce
37 implementation planning delays, the fish managers are encouraged to use that process. The call (in
38 Section 10.2B.1) to apply the coordinated watershed management provisions in Section 7.7 in the
39 resident fish program does not mean that every resident fish project with watershed implications is
40 doomed to a specific and lengthy process outlined somewhere in Section 7.7. It does mean, for the
41 reasons outlined in the comments and in the Council's findings on Section 7, that watershed activities
42 need to be coordinated to try to prevent inconsistent actions in the watershed that undermine
43 attempts at improvement and to involve in overall watershed planning and implementation the public

1 and private interests that will be affected by the watershed efforts and who will be called upon for
2 support in implementation. To the extent that the result is a more complex and slower
3 implementation process, this is the regrettable but understandable and necessary result of the need
4 for the coordination and cooperation of those involved, and will in the long run lead to much more
5 successful results. But the Council reiterates that this does not mean all or any particular resident
6 fish project with habitat features cannot successfully negotiate this terrain in one comprehensive
7 NEPA-type review process, precisely as recommended by the UCUT Tribes.

8
9 For all of these reasons, the Council concludes that what the UCUT Tribes recommended
10 would be less effective than what the Council has adopted for the protection, mitigation and
11 enhancement of fish and wildlife, 16 U.S.C. §839b(h)(7)(C), and because the Council considers
12 that what it has adopted better complements the activities of all the region's federal and state fish
13 and wildlife agencies and Indian tribes, 16 U.S.C. §839b(h)(6)(A), (7)(B).

14
15 With regard to the comment from the Friends of the Wild Swan and others, that a NEPA-
16 type evaluation of supplementation programs needed to occur before entities began implementing
17 supplementation projects, the Council encourages a NEPA or NEPA-type analysis of proposed
18 supplementation processes. Section 10.2A already calls for, as noted above, the review of artificial
19 production activities and the development of production guidelines to minimize genetic and other
20 biological impacts from artificial production. Implementation of specific projects need not await
21 these reviews, as noted above, as long as the project-specific NEPA analysis thoroughly addresses
22 these issues.

23
24 Bonneville is correct that Bonneville may not be the appropriate funding source for every
25 production or habitat project (and thus for the NEPA-type evaluation of the project), although it
26 surely is and will be for many. The issue of Bonneville ratepayer responsibility will be addressed
27 instead in the process of adoption of measures into the program and/or in the implementation
28 process. When Bonneville is the funding source for a state or tribal project, Bonneville is correct
29 that it is the agency with the ultimate NEPA responsibility, although it will be complying with the
30 NEPA review process in consultation and coordination with the affected fish managers. The
31 Council's findings concerning the use of the NEPA process are intended as much for Bonneville as
32 for the fish managers. Finally, Bonneville is incorrect that biological objectives must be in place first
33 to guide project selection and planning or that the development of biological objectives cannot be
34 part of the project master plans. As noted above, in the findings regarding Section 10.1C, the
35 development of specific, quantified biological objectives is preferred by the Council as a policy
36 matter but not required under the Act prior to adopting measures into the program or implementing
37 those measures. It is quite possible that specific, quantified biological objectives will be developed
38 for some projects in an adaptive management process that sees the development of a project to
39 address a reasonable qualitative or narrative statement of biological purpose, with project planning,
40 implementation, and monitoring and evaluation then providing the type of information that can be
41 used to refine the objectives to a more specific and even quantified form, which then can be used in
42 an iterative fashion to evaluate and refine, revise or even terminate the project.

43

1
2
3 **Program Section(s): 10.2C (fish screening and passage projects)**

4 Source: Confederated Salish and Kootenai Tribes

5 Recommendation No.: 95-2/0008
6

7 **Recommendation:** The Confederated Salish and Kootenai Tribes recommended a new
8 section (which the Council placed in the draft amendments as proposed new Section 10.5C) to
9 “Fund and Implement Fish Screening and Passage Projects.” Proposed new Section 10.5C.1
10 called on Bonneville, Reclamation, FWS, the states and tribes and irrigation water users to provide
11 the Council an annual prioritized list of “tributary screening and passage facility improvements for
12 stream diversions in the Columbia River Basin affecting bull trout and other resident fishes.” Both
13 pump and gravity diversions are to be considered, and improvements can include new facilities or
14 the upgrading and maintenance of existing facilities. Priority should be given to “naturally producing
15 weak stocks.” These entities are also to identify “resources that will be needed to accomplish
16 screening and passage work, and prepare a general operation and maintenance plan, including a
17 schedule, budget, proposed cost sharing incentive programs and monitoring and evaluation plans.
18 In order to accelerate this effort, immediately identify and allocate a budget from all available
19 sources for implementation of the plan.” In addition, these entities are to give the Council a list by
20 November 1995 of “diversions where fish screening is a secondary problem compared to impaired
21 instream flows.”
22

23 Proposed Section 10.5C.2 then provided that based on “the priorities indicated in
24 10.5C.1,” Bonneville is to “provide funding for state and tribal fish screen programs to implement a
25 minimum of 10 gravity and 30 pump screen projects per each state (WA, ID, MT) in the Upper
26 Columbia Subregion and 10 gravity and 30 pump screen projects per each state (ID, OR) in the
27 Upper Snake Subregion.” Bonneville is to encourage “[i]nnovative solutions” to diversion/fish
28 screen problems, such as “conversion to electric pumping, conversions from surface to ground
29 water, [and] consolidations of diversions.” Funding is to be sufficient to meet eight listed
30 requirements, including design work, permit processes, monitoring and evaluation, and the like.
31

32 Proposed Section 10.5C.3 called on the BLM, the USFS, and Reclamation to require as a
33 condition of new and existing water diversions that the diversion structures have “functional fish
34 screens and other passage facilities for man-made barriers to resident salmonids [that] meet the
35 criteria developed by the Fish Screening Oversight Committee.” For existing authorized water
36 diversions, “wherever practical and especially on high-priority diversions,” the three federal agencies
37 are to coordinate with state fish screen programs “to design and install screens that meet FSOC
38 criteria on a multi-agency or shared-cost basis, with authorization renewals contingent on
39 reimbursement to the agency, or other arrangements satisfactory to the agency.” The agencies are
40 to report on progress by March 1 of every year, “including the number of such permits, estimated
41 screening costs, resources necessary to implement and monitor the program, and a time frame for
42 compliance.”
43

1 Proposed Section 10.5C.4 called on the Salish-Kootenai Tribes to provide annually to the
2 Council and the Bureau of Indian Affairs a prioritized list of “adult and juvenile fish passage needs
3 and accomplishments” on the Flathead Reservation. Bonneville and the BIA are to fund “an
4 accelerated program to accomplish screening and passage work.”
5

6 Finally, proposed Section 10.5C.5 called on the four states in the region to enact laws, if
7 needed, “to require diverter installation, operation, and maintenance of fish screens on water
8 diversions within resident fish waters” of the Columbia basin, and to report annually to the Council
9 by June 30 on progress on this measure.
10

11 **Draft:** Included in the draft rule as a new Section 10.5C.
12

13 **Comment:** The Confederated Salish and Kootenai Tribes commented that the details in
14 proposed Sections 10.5C.2 and 10.5C.4 (concerning funding for screening projects) “were
15 presented as examples only within this amendment process.” “Numbers and types of screening
16 facilities can [be] determined” only after the prioritization process outlined in proposed Section
17 10.5C.1. The Tribes also stated that the Bureau of Indian Affairs should be added to the list of
18 responsible agencies. (186, 191)
19

20 The Washington Department of Fish and Wildlife applauded the Council’s recognition of the
21 need to implement a fish screening program to protect resident fish, and it recommended timely
22 provision of funding for a needs assessment for this program to coordinate with the ongoing
23 inventory of screen intakes in the anadromous zone of the Columbia and Snake Rivers. (230)
24

25 The Montana Department of Fish, Wildlife and Parks commented, with regard to the
26 language in proposed Section 10.5C.2 to fund screening projects “based on the priorities indicated
27 in Section 10.5B.1,” that “[w]e are not certain what priorities are indicated in Section 10.5C.1 that
28 are relevant here.” (202).
29

30 Bonneville objected to certain aspects of the proposed tributary screening amendments.
31 First, Bonneville commented that the operators of irrigation should fund and implement this section.
32 Bonneville is currently funding screening improvements for federal hydroelectric facilities in the basin.
33 The projects-per-state described here for screening are most likely the responsibility of the project
34 owners, operators and states. Absent further information connecting the need for these screens to
35 the FCRPS, the in lieu provisions of Section 4(h)(10)(A) of the Act appear to prevent Bonneville
36 from funding this measure. In addition, vigorous implementation of Section 10.5C.3 by federal,
37 state and tribal entities with oversight responsibilities (imposing and enforcing screening obligations)
38 should preclude the need for Section 10.5C.2 (Bonneville funding of screens). If tributary screens
39 are still needed, and it is determined they are a FCRPS responsibility, they should be prioritized in
40 the same manner as other screening projects, with screens needed to protect ESA listed species
41 coming first, and to avoid listings second. With regard to the proposal in Section 10.5C.4 for
42 Bonneville to fund screens on the Salish and Kootenai Reservation, there is insufficient information

1 to determine Bonneville's responsibility for this measure, and Bonneville questioned the rationale for
2 Bonneville funding. (229)

3
4 The Bureau of Reclamation commented that it has a program underway under the ESA to
5 screen diversions located on anadromous fish streams. Reclamation's authority to undertake a
6 resident fish screening program is less clear. In any event, Reclamation funding for this purpose
7 would have to come from Congressional appropriations, and the earliest funding could be provided,
8 assuming Congress agrees, would be 1998. Moreover, Reclamation noted that Section 4(h)(8)(C)
9 of the Act provides that when enhancement measures deal with impacts caused by factors other
10 than electric power facilities, the additional measures are to be implemented in accordance with
11 agreements among the appropriate parties providing for the administration and funding of the
12 measures. This and other proposed amendments ask Reclamation to fund projects when it is not
13 clear (1) what impact factors the project is mitigating; (2) for what dam and reservoir; and (3) what
14 agreements have been reached with the appropriate parties to provide for administration and
15 funding of the project. Reclamation law requires reimbursement of project costs, including fish and
16 wildlife mitigation costs, from project beneficiaries unless exempted by Congress. Thus if
17 Reclamation is to fund a project to offset fish habitat losses associated with hydropower and non-
18 hydropower impacts at a Reclamation project, then irrigators, ratepayers and non-reimbursable
19 funding from Congress (related to flood control) would all need to provide funds. (143, 206)

20
21 The National Park Service, Coulee Dam National Recreational Area, commented that it
22 considers the installation of fish screens at water diversions to be a key element in overall protection
23 of resident fish species. (228)

24
25 Trout Unlimited, Montana Council, supported in concept the amendments to install fish
26 screening devices, but recommended that this not be implemented across the region until the Council
27 evaluates the results and the costs of similar projects, noting reports that current screening efforts
28 are not producing what is desired and expected in terms of benefits, partly because of inadequate
29 maintenance and monitoring. Trout Unlimited also recommended that the fish passage provisions
30 include a criterion directing the appropriate agency or tribe to insure that improved passage will not
31 adversely affect a native resident species. (186)

32
33 Dale Williams, of Montanans for Multiple Use and the National Organization to Save
34 Flathead Lake commented that the very least that can and should be done is the requirement of fish
35 screens on all water diversions. (205)

36
37 **Findings:** The Council adopted the recommendation, renumbered as a new Section
38 10.2C, as modified to reflect the comment from the recommending entity, the Confederated Salish
39 and Kootenai Tribes. The revised language no longer specifies the number of projects to be
40 implemented annually in each state. Instead, Section 10.2C.2 calls for funding for the priority
41 screening projects of the states and tribes based on the priorities described in Section 10.2C.1.
42 The last measure in this new section was also amended to call for the states not only to enact
43 screening legislation, but also to provide for the enforcement of these laws.

1
2 The Council recognizes that Reclamation may need Congressional authorization, and
3 certainly will need Congressional appropriations to help fund the screening program. Adopting the
4 measure into the program should help Reclamation receive the authorization and funding necessary.
5 With regard to Bonneville's comments, the Council recognizes the possible legal limits on
6 Bonneville's funding responsibilities for diversion screening programs that are primarily the
7 responsibility of owners, operators and states. This is one of the reasons the Council added the
8 language calling on the states to enforce their laws requiring water users to install, operate and
9 maintain fish screens. To the extent that these efforts are not successful in providing for the
10 necessary screens, and the fish managers can demonstrate that addressing the unscreened and
11 poorly screened diversions can and should be at least in part a FCRPS responsibility, then the
12 screening projects will in fact go into the prioritization process with the other resident fish projects,
13 as described in the revised Section 3.1B.
14
15
16

17 **Program Section(s): 10.3A, 10.3B (Hungry Horse/Libby)**

18 **Source:** Montana Department of Fish, Wildlife and Parks and Confederated Salish
19 and Kootenai Tribes

20 **Recommendation No.:** 95-2/0023
21

22 **Recommendation:** The self-described subject matter of this recommendation is "SOR
23 Computer Model Support: Montana Storage Projects." The Montana Department of Fish, Wildlife
24 and Parks and the Confederated Salish and Kootenai Tribes recommended that Bonneville "fund a
25 three-year investigation of proposed operating schedules for Hungry Horse and Libby Reservoirs,
26 and the schedules' effects on the biology of these reservoirs. This assessment will include
27 refinement and testing of sets of Integrated Rule Curves, determining their effects on the reservoir
28 and downstream hydrology, thermal characteristics, and biological production. Further analyses are
29 required to evaluate alternative operating regimes proposed by other agencies, effects on the
30 reservoirs and the resultant biological impacts. All work will be performed by the Montana Fish,
31 Wildlife, and Parks Department at the Kalispell Regional Office."
32

33 **Draft:** Not included in the draft rule; this recommendation was included in the draft rule
34 appendix "Other Amendment Recommendations On Which the Council Specifically Invites
35 Comment."
36

37 **Comment:** The Montana Department of Fish, Wildlife and Parks supported the inclusion
38 of this proposed three-year investigation to evaluate and refine the integrated rule curves. "This is,
39 of course, dependent upon the IRC being implemented." (202).
40

41 The Confederated Salish and Kootenai Tribes noted that the provisions of the program
42 concerning the integrated rule curves "are somewhat outdated and misleading" in that operations at

1 Hungry Horse and Libby are now dictated by the NMFS' 1995 Biological Opinion which does not
2 include the IRCs. (191)

3
4 Bonneville commented that the Council's commitment to the Hungry Horse and Libby Dam
5 integrated rule curves should be re-evaluated in light of NMFS' 1995 Biological Opinion. Specified
6 operations at Libby Dam for the benefit of resident fish should also be reevaluated in light of the
7 USFWS Biological Opinion on Kootenai River white sturgeon. (229)

8
9 Tim Linehan, Kootenai River Guide Service, Troy, Montana, called for prompt
10 implementation of the integrated rule curves for Libby Dam operations, noting that continued
11 operations under other plans are threatening the biological integrity of the Kootenai River and having
12 an adverse impact on recreational uses. (163)

13
14 Seattle City Light supported the concept of the integrated rule curves, but stated that the
15 proposed IRCs need further rigorous peer review, analysis and modeling before implementation and
16 that Seattle City Light and others to be affected need to be able to participate in this review. Seattle
17 City Light estimated the energy and cost impacts to the utility and to the region that will result from
18 the implementation of these proposed curves, and supported refinement of the IRCs and evaluations
19 of effects on reservoir and downstream hydrology, thermal characteristics, biological production and
20 power production. (99, 141)

21
22 Montana Power Company similarly emphasized the need for further refinement and analysis
23 of the IRCs before implementation, including consideration of alternatives such as the "20/40/60
24 case" developed by Montana Power that would reduce the power and cost impacts of the curves,
25 in what the company considered a truly "integrated" curve that balanced fish protection with power
26 production. (186, 193)

27
28 The Western Montana Electric Generating and Transmission Cooperative commented that
29 little progress has been made toward implementing the integrated rule curves for the operation of
30 Libby and Hungry Horse reservoirs. "Additional language is apparently necessary, perhaps setting
31 specific timelines and dates for implementation" (221). The Public Utility District No. 1 of
32 Okanogan County stated that it agreed with the comments of WMG&T in this rulemaking. (222)

33
34 The Koocanusa International Coalition, Eureka, Montana, commented that the Council
35 should not rescind its decision to call for implementation of the IRCs at Libby and Hungry Horse
36 reservoirs. The Coalition noted that the IRCs are a compromise with a balanced outlook, creating
37 favorable conditions for resident fish yet also releasing water for salmon and sturgeon downstream.
38 "We must not sacrifice our fisheries, wildlife and quality of life for unproven endangered species
39 recovery plans." (210)

40
41 **Findings:** The Council did not adopt the recommendation. The program already contains
42 provisions calling for The Montana Department of Fish, Wildlife and Parks and the Confederated
43 Salish and Kootenai Tribes, the Council and others to review, evaluate and refine the integrated rule

1 curves at Hungry Horse and Libby. See, e.g., Sections 10.3A.4, 10.3A.6, 10.3B.3 and 10.3B.5.
2 This recommendation was more detailed and specific in describing the type of evaluation requested.
3 Nevertheless, it does not recommend anything that is not authorized within the scope of existing
4 program language. The Council concludes that it is more effective to call for the more general
5 evaluation and refinement of the rule curves, thereby letting the relevant parties define the specific
6 parameters of the evaluation process at the very time of project selection and contracting. The
7 Council expects that the relevant parties will take into consideration, as they decide how to evaluate
8 the integrated rule curves, the specific matters included in this recommendation. Based on upon this
9 record, the Council concludes that the recommendation is less effective than what has been adopted
10 ensuring the protection, mitigation and enhancement of resident fish and wildlife, 16 U.S.C.
11 §839b(h)(7)(C).

12
13 Evaluating the rule curves in operation depends, of course, on their being implemented, as
14 the comments infer. The Council continues to believe that the region should implement the
15 integrated rule curves at Hungry Horse and Libby, and that this can be done without undermining
16 the salmon recovery program. NMFS may have disagreed for the moment, in the 1995 Biological
17 Opinion and the draft Recovery Plan, but the Council has not been persuaded by NMFS' position
18 or analysis. The Council intends to continue calling for the implementation of the IRCs until they are
19 implemented or until the Council concludes that new information shows that they should not or
20 cannot be implemented.

21
22
23
24 **Program Section(s):** 10.3A.9, 10.3A.14, 10.3A.17 (Hungry Horse)

25 Source: U.S. Fish and Wildlife Service (Helena, Mt. office)

26 Recommendation No.: 95-2/0012
27

28 **Recommendation:** In comments held over from the anadromous fish rulemaking process,
29 the U.S. Fish and Wildlife Service recommended that it be added as a participant in or implementing
30 agency for three of the Hungry Horse measures -- 10.3A.9 on conflict resolution; 10.3A.14 on
31 long-term financing consultations; and 10.3A.17, on mitigation plan coordination.

32
33 **Draft:** The Council did not include these recommended changes in the draft rule, deciding
34 instead to place them in the draft rule appendix "Other Amendment Recommendations On Which
35 the Council Specifically Invites Comment." The proposed amendments as published did conform to
36 this decision with respect to Sections 10.3A.9 and 10.3A.14, but in an inadvertent publication
37 error, the document included in the body of the draft rule the proposed addition to the implementing
38 agencies for Section 10.3A.17.

39
40 **Comment:** The Montana Department of Fish, Wildlife and Parks did not support this
41 recommendation. "The USFWS does not share management authority for these resources with the
42 Confederated Salish and Kootenai Tribes and the State of Montana. Consequently, it is not
43 appropriate for USFWS to be included in these sections." (202).

1
2 The Confederated Salish and Kootenai Tribes noted that while the USFWS is very much
3 involved in the everyday activities associated with the Hungry Horse project, the Tribes and the
4 State of Montana are still the resource managers and FWS is not. (186)
5

6 The Flathead Basin Committee also noted that the FWS had been active and generous of
7 their time, but that FWS was a contractor and not an implementor like MDFWP or the Tribes.
8 Adding FWS as an implementor would add an unnecessary extra layer of bureaucracy to a system
9 that is working quite well. (186)
10

11 Dale Williams, of Montanans for Multiple Use and the National Organization to Save
12 Flathead Lake, “[o]n behalf of nearly 2500 Multiple Users throughout western Montana and nearly
13 6000 Montanans who signed petitions on behalf of the National Organization to Save Flathead
14 Lake,” commented that the USFWS should not be recognized as playing anything other than an
15 advisory role to other federal agencies and the states. (205)
16

17 Flathead Save Our Lake from Kalispel, Montana, commented in support of this
18 recommendation, as the agency with the proper expertise and mission to develop and implement
19 appropriate mitigation programs. (161)
20

21 **Findings:** The Council did not adopt the recommendation. The state and tribal fish
22 managers in the region were consistent in their views that while the Service plays an important
23 advisory and contracting role in the Hungry Horse resident fish mitigation program, the Service does
24 not have management authority over these resources and populations and should not be placed on
25 the same level as those with the management authority. In the absence of a more comprehensive
26 explanation from the Service as to why it should be added to these provisions in the face of this
27 opposition, the Council is not inclined to adopt the recommendation. The Council encourages the
28 Service and the state and tribes to consult on this issue and arrive at a consensus understanding of
29 the Service's role, and to communicate that understanding to the Council. In the interim, the Council
30 did amend Section 10.3A.17 to note that the Council encourages representatives of Region 6 of the
31 USFWS to comment on mitigation and river management plans that affect fish and wildlife in the
32 region. On this record, the Council concluded that the recommendation was less effective than what
33 has been adopted in both complementing the activities of the fish agencies and tribes, 16 U.S.C.
34 §839b(h)(6)(A), (7)(C), and ensuring the protection, mitigation and enhancement of resident fish
35 and wildlife, 16 U.S.C. §839b(h)(7)(C).
36
37
38

39 **Program Section(s): 10.3A.12 (Hungry Horse)**

40 Source: Confederated Salish and Kootenai Tribes and Montana Department of
41 Fish, Wildlife and Parks

42 Recommendation No.: 95-2/0009

43 Source: U.S. Fish and Wildlife Service (Helena, Mt. office)

1 Recommendation No.: 95-2/0012

2
3 **Recommendation:** The Confederated Salish and Kootenai Tribes and the Montana
4 Department of Fish, Wildlife and Parks recommended revising various provisions of the Hungry
5 Horse mitigation section “to allow greater management flexibility” and to update existing language.
6 The two entities did not, however, recommend specific program language, stating instead that
7 “[a]greement as to proper Program language should be reached within the Council process.” With
8 regard to Section 10.3A.12, the Tribes and the Department noted the directive in Section 10.3A.12
9 to limit kokanee production at Hungry Horse to “temporary and low cost” facilities, and stated that
10 this has “resulted in an actual decrease in available rearing space.” While the recommendation did
11 not specify precisely what the Tribes and the Department desired in terms of revised language, the
12 recommendation did state that decisions by the appropriate personnel as to what facility upgrades
13 are necessary “should not be hampered by arbitrary Program language.” Attached to the
14 recommendation was an earlier letter to Montana Council Members Grace and Etchart from Joe
15 DosSantos on behalf of the Hungry Horse Implementation Group raising this same issue. Again, the
16 letter did not state specifically how the program should be changed to rectify this situation, but it did
17 ask for Council and Bonneville support for additional facilities. The Fish and Wildlife Service raised
18 the same issue (and attached the same letter) during the anadromous fish rulemaking, and the issue
19 was deferred to this process.
20

21 **Draft:** Based on these recommendations, the Council staff drafted, and the Council
22 approved for inclusion in the draft rule, the deletion of the sentence in Section 10.3A.12 limiting
23 kokanee production to temporary and low-cost facilities.
24

25 **Comment:** The Confederated Salish and Kootenai Tribes confirmed their support for this
26 amendment, because the reference to low cost and temporary facilities has essentially reduced the
27 productive capability of the facility by 25 percent and has resulted in space problems. Decisions on
28 these matters should be left to the appropriate production facility engineers from USFWS and
29 Bonneville. (186)
30

31 Anticipating comments from the Independent Scientific Group about the benefits of the
32 kokanee production program at Hungry Horse, the U.S. Fish and Wildlife Service, on behalf of the
33 Hungry Horse Mitigation Plan Implementation Group (USFWS, Montana Department of Fish,
34 Wildlife, and Parks, Confederated Salish and Kootenai Tribes), requested that the Council not
35 make any decisions based on comments submitted from the ISG without scheduling an open forum
36 discussion with the plan implementors and others. (183, 189)
37

38 The Independent Scientific Group did submit a report commenting on the Hungry Horse
39 mitigation plan kokanee production activities. Bonneville’s policy review group requested this
40 report of the ISG in April 1994 (when the ISG was the Scientific Review Group), a request
41 consistent with the Council’s approval of the Hungry Horse mitigation implementation program
42 conditioned on such a review. The purpose of the review was to examine the scientific aspects of
43 mitigation plans for kokanee and bull trout enhancement, paying particular attention to the

1 supplementation provisions for native species and their consistency with the Regional Assessment of
2 Supplementation Project. The ISG's review concluded that neither the kokanee test nor the native
3 species mitigation measures are consistent with RASP guidelines.
4

5 The ISG believes the experimental kokanee stocking test is unlikely to achieve the goals
6 specified in the mitigation implementation program due to changes in the Flathead Lake food web
7 caused by introduced Mysis shrimp and lake trout. Lake trout are effective predators on kokanee
8 and have eaten most of the planted kokanee that last two years. Declines in kokanee abundance in
9 the lake occurred simultaneously with increases in Mysis shrimp and lake trout abundance in the
10 mid-1980s. The change in the food web is probably irreversible. More than 12 million kokanee
11 have been stocked over the last seven years, yet few kokanee have appeared in the sampling
12 program and virtually no natural reproduction has been observed. Based on these factors, the ISG
13 recommended terminating the kokanee experiment after the 1995 releases.
14

15 The review noted that the mitigation implementation program focuses primarily on kokanee
16 and secondarily on native species restoration--bull trout and westslope cutthroat trout. As regards
17 native species, the ISG called for identification of specific objectives with clear performance criteria,
18 detailed experimental designs, and monitoring designs adequate to determine when objectives have
19 been met. The review concluded that greater emphasis should be given to the native species portion
20 of the mitigation implementation program and to development of the technical details of the
21 mitigation and implementation efforts than has occurred. It noted that supplementation of these
22 populations should occur only after a careful evaluation has identified constraints on these
23 populations and has indicated that biologically realistic restoration objectives cannot be attained
24 through habitat and passage improvements alone. The mitigation implementation program goal
25 statement reflects this approach, but the implementation description focuses on artificial production.
26

27 Specific comments on bull trout included that the time frame for evaluating responses to
28 habitat and passage improvements (5 years) is unrealistic and is more likely to be in the range of
29 several generations (15-20 years). For westslope cutthroat trout, the report stated that the program
30 is even less developed than for bull trout and that supplementation activities called for do not include
31 information to evaluate or justify them. (214)
32

33 Flathead Save Our Lake from Kalispel, Montana, commented in support of this
34 recommendation, noting that a sound hatchery program is an important part of the Hungry Horse
35 mitigation plan and necessary for a complete fish restoration and protection program for Montana,
36 for recreational, economic and biological benefits. (161)
37

38 Trout Unlimited, Montana Council, commented that the program is in the middle of a five-
39 year test period for the reintroduction of kokanee, and implementors ought to be thinking about the
40 criteria for deciding what direction to go at the end of the five-year program. Reports are that there
41 are few kokanee in the lake. (186)
42

1 The Flathead Basin Committee commented that while the Committee had not taken a
2 position on this amendment, it encouraged the Council to consider alternatives that would allow
3 “low cost and temporary” to remain a part of the requirements for hatchery supplementation for
4 Hungry Horse, that net pens are a labor intensive and capital-conserving method of raising kokanee,
5 that the original plan was for a five-year trial and as a trial there is a need to avoid establishing
6 expensive infrastructure that might not work, that volunteers might be recruited to help to keep costs
7 down, and that hatchery supplementation was intended to be subject to adaptive management and
8 not meant to be permanent or to be a put-and-take fishery. (186)

9
10 Dale Williams, of Montanans for Multiple Use and the National Organization to Save
11 Flathead Lake commented on how encouraged they are at the initial success of the Hungry Horse
12 mitigation project’s efforts to restore kokanee salmon to the fishery of Flathead Lake. He noted
13 objections that kokanee are not a native fish, but stated that “history tells us otherwise,” and noted
14 that there had been a 70 percent success rate on the first planting of kokanee, compared to a
15 normal trout or salmon plant that may suffer a 35 to 45 percent predation level. They continue to
16 feel confident that subsequent plants will restore the kokanee fishery to the Flathead, with multi-
17 million dollar benefits to the economy. Thus this undertaking should be continued as originally
18 planned. They are also attempting to incorporate similar kokanee mitigation efforts as a requirement
19 for Kerr Dam mitigation. Mr. Williams also noted concerns about populations and habitat for bull
20 trout, westslope cutthroat trout, ling and sturgeon, and noted that successful hatchery production of
21 brood stock, coupled with new techniques for planting, can assure a continued wild resident fishery,
22 including the use of hatchery sturgeon to rebuild wild sturgeon. For all these reasons they request
23 that “a primary block of funding be reserved for the hatcheries.” (205)

24
25 **Findings:** The Council decided not to adopt this recommendation. In other words, the
26 Council restored the limiting reference to "temporary and low cost" production facilities. Comments
27 ranged from those who supported the fish managers' recommendation to remove the limit, in order
28 to boost production of kokanee in what they see as a successful operation, to those who feel it is
29 premature to make any changes in the middle of what is a five-year kokanee production trial about
30 which too little is known as yet, to the Independent Scientific Group's opinion that the trial has not
31 proven to be a success and should be terminated after the 1995 releases. The Council and the
32 region have not yet had sufficient time and opportunity to review and comment on the ISG report to
33 terminate the kokanee production program in this rulemaking. But the ISG reports and the
34 comments of others, such as the Flathead Basin Committee, have convinced the Council that now is
35 not the time to alter the five-year kokanee trial. Most important, at the end of the consultation
36 period, the Confederated Salish and Kootenai Tribes communicated to the Montana Council
37 members that they would not object to a Council decision to retain the limiting language.

38
39 For these reasons the Council reinstated the language limiting facilities for production of
40 kokanee to those that are temporary and low cost. It is the Council’s understanding that the tests
41 called for in this section concerning the feasibility of increasing kokanee populations in the Flathead
42 basin have not been completed. Continuing the measure in its current form will allow for the
43 completion of these tests on the same baseline. The Council also encourages the implementors to

1 identify, as called for by the ISG, specific objectives with clear performance criteria, as well as
2 detailed experimental designs and monitoring plans that are adequate to determine whether the
3 objectives have been met.

4
5 On this record, Council concludes that the recommendation was less effective than what is
6 in the program in ensuring the protection, mitigation and enhancement of resident fish and wildlife,
7 16 U.S.C. §839b(h)(7)(C).

8
9
10
11 **Program Section(s): 10.3A.13 (Hungry Horse)**

12 Source: Confederated Salish and Kootenai Tribes and Montana Department of
13 Fish, Wildlife and Parks

14 Recommendation No.: 95-2/0009

15
16 **Recommendation:** The Confederated Salish and Kootenai Tribes and the Montana
17 Department of Fish, Wildlife and Parks recommended revising various provisions of the Hungry
18 Horse mitigation section "to allow greater management flexibility" and to update existing language.
19 The two entities did not, however, recommend specific program language, stating instead that
20 "[a]greement as to proper Program language should be reached within the Council process." With
21 regard to Sections 10.3A.12 and 10.3A.13 (concerning artificial production and habitat
22 improvement in the Hungry Horse region), the Tribes and the Department noted that the program
23 recognizes "the importance of genetic integrity in hatchery production, but fails to recognize the
24 importance of proper fish health monitoring. This is an extremely important factor which must be
25 adequately monitored, especially when fish are being brought in from the wild."

26
27 **Draft:** Based on this imprecise recommendation, the Council staff drafted, and the Council
28 approved for inclusion in the draft rule, the addition of a sentence to Section 10.3A.13 calling for, as
29 part of the habitat improvement efforts, the implementation of "fish health monitoring as needed for
30 habitat improvement activities."

31
32 **Comment:** The Montana Department of Fish, Wildlife and Parks commented that fish
33 health monitoring is important for all aspects of Hungry Horse mitigation implementation, and should
34 not be linked just to habitat improvement activities. The Department recommended that the added
35 sentence be altered to state simply: "Implement fish health monitoring." (202).

36
37 **Findings:** Adopted as modified to reflect the comment from the Montana Department of
38 Fish, Wildlife and Parks.

39
40
41
42 **Program Section(s): New 10.3A.? (fish biologist)**

43 Source: Montana Department of Fish, Wildlife and Parks

1 Recommendation No.: 95-2/0018

2
3 **Recommendation:** The Montana Department of Fish, Wildlife and Parks recommended
4 that Bonneville fund a half-time fisheries biologist for the department who is to work "as part of the
5 state Fish Health program, and shall address Fish Health concerns in the Flathead River system in
6 northwestern Montana."

7
8 **Draft:** Not included in the draft rule.

9
10 **Findings:** The Council did not adopt this recommendation. Instead, in response to a joint
11 recommendation from the Department and the Salish-Kootenai Tribes (described above), the
12 Council called for fish health monitoring as part of the Hungry Horse mitigation project on the
13 Flathead River as an addition to Section 10.3A.13. This program measure will allow for the
14 Department to employ an additional biologist to the extent an additional person is justified in the
15 project design, selection and funding process in order to implement the measure. It is the Council's
16 general policy (and Bonneville's general comment to the Council) not to direct Bonneville to fund
17 particular entities to hire particular personnel to carry out particular work. Instead, the Council
18 defines the task or objective to be accomplished, leaving it to the fish managers and Bonneville to
19 design the specific project to accomplish the objective, using competitive bids and/or other
20 procurement procedures. The Council has concluded that this is the most cost-effective way to
21 protect, mitigate and enhance fish and wildlife resources and thus spread and balance program
22 spending and the cost impact to the power system. For this reason, the Council finds that the
23 measure adopted is more effective than the recommended language in protecting, mitigating and
24 enhancing resident fish, 16 U.S.C. §839b(h)(5), (7)(C).

25
26
27
28 **Program Section(s):** **10.3A.16 (Hungry Horse)**

29 Source: Confederated Salish and Kootenai Tribes and Montana Department of
30 Fish, Wildlife and Parks

31 Recommendation No.: 95-2/0009

32
33 **Recommendation:** As noted above, the Confederated Salish and Kootenai Tribes and
34 the Montana Department of Fish, Wildlife and Parks recommended revising various provisions of
35 the Hungry Horse mitigation section "to allow greater management flexibility" and to update existing
36 language. The two entities did not recommend specific program language, stating instead that
37 "[a]greement as to proper program language should be reached within the Council process." With
38 regard to Section 10.3A.16, which calls for installation of a selective water withdrawal structure, the
39 Tribes and the Department noted that the "selective withdrawal system at Hungry Horse Dam is
40 presently under construction, and should be 50-percent operational by the summer of 1995.
41 Program language should reference the completion of the project and the proper operation of the
42 system."

1 **Draft:** Based on this recommendation, the Council staff drafted, and the Council approved
2 for inclusion in the draft rule, an update for Section 10.3A.16 calling for the completion and
3 operation of the system and deleting the sentence asking Bonneville and the Bureau of Reclamation
4 to explore cost sharing for the structure.
5

6 **Findings:** Adopted.
7
8
9

10 **Program Section(s):** **10.3A.17 (Hungry Horse)**

11 Source: Confederated Salish and Kootenai Tribes and Montana Department of
12 Fish, Wildlife and Parks

13 Recommendation No.: 95-2/0009
14

15 **Recommendation:** As noted above, the Confederated Salish and Kootenai Tribes and
16 the Montana Department of Fish, Wildlife and Parks recommended revising various provisions of
17 the Hungry Horse mitigation section “to allow greater management flexibility” and to update existing
18 language. With regard to Section 10.3A.17, which calls for coordination of the Kerr and Hungry
19 Horse dams mitigation programs, the Tribes and the Department noted that “[p]resent Program
20 language requires MDFWP and CSKT to address the coordination of these two projects [Hungry
21 Horse and Kerr] within the Implementation Plan. This Hungry Horse Implementation Plan has been
22 completed and approved by the Council. In general, the coordination of these two projects is an
23 on-going co-management activity.”
24

25 **Draft:** Based on this recommendation, the Council staff drafted, and the Council approved
26 for inclusion in the draft rule, an update for Section 10.3A.17 calling for the continued coordination
27 of the two mitigation programs so that measures taken under the programs are complementary and
28 deleting the rest of the existing language.
29

30 **Findings:** Adopted.
31
32
33

34 **Program Section(s):** **10.3B (Libby)**

35 Source: U.S. Fish and Wildlife Service (Helena, Mt. office)

36 Recommendation No.: 95-2/0012
37

38 **Recommendation:** In comments held over from the anadromous fish rulemaking process,
39 the U.S. Fish and Wildlife Service recommended that it be “included in all aspects of [Section
40 10.3B] that may affect downstream flows and the Kootenai River white sturgeon.” In contrast to
41 the FWS’ recommendation for the Hungry Horse provisions, the FWS did not specify the particular
42 Libby Dam provisions to which it should be added as a participant.
43

1 **Draft:** To respond, the Council staff proposed the amendment of two sections -- 10.3B.1
2 (concerning flows in the Kootenai River and Lake Koocanusa) and 10.3B.8 (concerning conflicts
3 between flows and reservoir levels), to add the FWS as a party to be consulted due to the
4 implications for Kootenai River flows downstream of Libby Dam. It was unclear whether similar
5 amendments to other sections would be needed to be responsive to the FWS request. The Council
6 decided not to include the proposed changes in the draft rule, and instead to include them in the
7 draft rule appendix "Other Amendment Recommendations On Which the Council Specifically
8 Invites Comment."

9
10 **Comment:** The Montana Department of Fish, Wildlife and Parks did not support this
11 recommendation. "The USFWS does not share management authority for these resources with the
12 Confederated Salish and Kootenai Tribes and the State of Montana. Consequently, it is not
13 appropriate for USFWS to be included in these sections." (202).

14
15 Dale Williams, of Montanans for Multiple Use and the National Organization to Save
16 Flathead Lake commented that the USFWS should not be recognized as playing anything other than
17 an advisory role to other federal agencies and the states. (205)

18
19 Flathead Save Our Lake from Kalispel, Montana, commented in support of this
20 recommendation, as the agency with the proper expertise and mission to develop and implement
21 appropriate mitigation programs. (161)

22
23 **Findings:** The Council did not adopt the recommendation. As noted with regard to the
24 Hungry Horse provisions, the state and tribal fish managers in Montana did not support the
25 recommendation because the USFWS does not share management authority with the State of
26 Montana and the Confederated Salish and Kootenai Tribes. This point is less clear with regard to
27 the impacts of Libby Dam on the listed Kootenai River white sturgeon, since the fact of the
28 Endangered Species Act listing provides the USFWS with a form of management authority over
29 that population (even if technically only in a consultation and planning role). As a practical matter, it
30 may be irrelevant whether the Council formally amends the program to add the USFWS to the list
31 of entities to be consulted over flows below Libby Dam. As the federal agency with ESA
32 jurisdiction over the listed sturgeon, the Service must be consulted by the federal operating agencies
33 about Libby project operations and flow releases.

34
35 Even so, in the face of the opposition from the state and tribe, and in the absence of a more
36 comprehensive explanation from the Service, the Council decided not to adopt the
37 recommendation. Again, the Council encourages the Service and the state and tribes to consult on
38 this issue and arrive at a consensus understanding of the Service's role, and to communicate that
39 understanding to the Council. And as noted above, in the interim, the Council amended Section
40 10.3A.17 to note that the Council encourages representatives of Region 6 of the USFWS to
41 comment on mitigation and river management plans that affect fish and wildlife in the region.
42

1 On this record, the Council concluded that the recommendation was less effective than what
2 has been adopted in ensuring the protection, mitigation and enhancement of resident fish and
3 wildlife, 16 U.S.C. §839b(h)(7)(C).
4
5
6

7 **Program Section(s): 10.3B.9 (Libby Dam/three new generators)**

8 Source: Upper Columbia United Tribes

9 Recommendation No.: 95-2/0076
10

11 **Recommendation:** The UCUT Tribes recommended deleting Section 10.3B.9, explaining
12 that adding three generators to Libby is an efficiency upgrade which is not a management priority of
13 the fishery managers. In the alternative the Tribes' recommended that the Council expressly state in
14 the program that if Bonneville decides to pursue this measure, the cost should not be assigned to the
15 fish and wildlife program budget.
16

17 **Draft:** Not included in draft rule.
18

19 **Findings:** The Council did not adopt the recommendation. The Council agrees with the
20 UCUT Tribes that adding three new generators to Libby Dam is not a part of the fish and wildlife
21 program, and should not be funded out of the fish and wildlife program. The point of the measure is
22 that adding the new generators may, among other things, allow for a change in operations at Libby
23 that will be beneficial to resident fish, that this possibility needs to be evaluated, and that the
24 evaluation and any plan to add the generators needs to take into consideration a number of factors
25 to ensure the protection of resident fish in and below the reservoir. Deleting the measure altogether
26 would hinder the chances that such an evaluation will occur, and would preclude the Council from
27 influencing the scope and elements of the evaluation should it occur. For these reasons, the Council
28 concluded that the recommendation was less effective than what has been adopted in ensuring the
29 protection, mitigation and enhancement of resident fish and wildlife, 16 U.S.C. §839b(h)(7)(C).
30
31
32

33 **Program Section(s): New 10.3B.11 (Libby mitigation plan)**

34 Source: Confederated Salish and Kootenai Tribes and Montana Department of
35 Fish, Wildlife and Parks

36 Recommendation No.: 95-2/0010
37

38 **Recommendation:** The Confederated Salish and Kootenai Tribes and the Montana
39 Department of Fish, Wildlife and Parks proposed the development of a mitigation plan to address
40 "long term non-operational mitigation activities necessary and attributable to the construction and
41 operation of Libby Dam." The recommendation itself did not provide proposed program language,
42 stating instead that "[t]he proposed amendment should read similar to Section 903(b)4 and 5 of the
43 1987 Fish and Wildlife Program." These were provisions that called for Bonneville to fund the

1 efforts of the Department, the Tribes and others to evaluate conditions and develop mitigation
2 projects for the Flathead River and Flathead Lake to address the impacts of Hungry Horse and
3 Kerr Dams. These and other provisions were the genesis for the development and approval of the
4 Hungry Horse mitigation plan now referred to in Sections 10.3A.10 to 10.3A.17. The
5 recommendation here also stated that “[i]n accordance with . . . Section 10.3B.5, the agencies and
6 tribes will present to [the] Council recommended long-term non-operational mitigation activities.”
7 Section 10.3B.5 calls on Bonneville to fund studies to evaluate the effect of Libby Dam on resident
8 fish. The explanation included with the recommendation indicates that the purpose is to develop for
9 Libby Dam a comprehensive mitigation and implementation plan as has already been developed for
10 Hungry Horse.

11
12 **Draft:** Based on this recommendation, the Council and Council staff drafted, and the
13 Council included in the draft rule, the following proposed new Section 10.3B.11, calling on
14 Bonneville to:

15
16 In consultation with the Confederated Salish and Kootenai Tribes, the Montana Department
17 of Fish, Wildlife and Parks and other appropriate entities, fund the design, construction,
18 operation and maintenance of mitigation projects in the Kootenai River System and Lake
19 Koocanusa to supplement natural propagation of fish. These projects are to counter the
20 effects of habitat loss in the Kootenai River System caused by Libby Dam construction and
21 by drawdown and discharges of water from Lake Koocanusa. In consultation with the
22 Confederated Salish and Kootenai Tribes the Montana Department of Fish, Wildlife and
23 Parks and other appropriate entities, fund a study to determine levels of fish production
24 necessary to mitigate the effects of the hydropower system. Submit results of the study to
25 the Council by _____, 19___. The Confederated Salish and Kootenai Tribes and the
26 Montana Department of Fish, Wildlife and Parks are to make recommendations for further
27 action and necessary program amendments at that time.

28
29 **Comment:** The Confederated Salish and Kootenai Tribes clarified that they were
30 “essentially following the same methodology that we used in the Hungry Horse mitigation planning
31 process. And what we’ll be presenting you with is a loss statement with an associated mitigation
32 implementation plan.” (186)

33
34 The UCUT Tribes commented that the Kootenai Tribe of Idaho should be added as a party
35 to the Bonneville consultation. (196)

36
37 Trout Unlimited, Montana Council, “strongly” supported the recommendation for Libby
38 Dam mitigation projects for natural propagation of resident fish, but recommended that it be
39 amended to give highest priority to habitat enhancement and evaluations for native resident species.
40 Trout Unlimited also commented its members are concerned about daily ramping rates at Libby and
41 that any mitigation plan should “detail more ironclad monitoring objectives for determining the
42 impacts of those ramping rates on resident fish and on the insect populations. (186)

1 **Findings:** The Council adopted the draft rule language, with two minor modifications.
2 First, in response to the comment from the UCUT Tribes, the Council added the Kootenai Tribe of
3 Idaho as a party to the Bonneville consultation. Second, the Council added that the production
4 study called for be completed and the results submitted to the Council by December 31, 1996.
5

6 In response to the comment from Trout Unlimited that the measure be amended to give
7 highest priority to habitat enhancement and evaluations for native resident species, the Council
8 adopted a statement of priorities for the resident fish section, in Section 10.1B, that assigns the
9 highest priority statement to rebuilding to sustainable levels weak, but recoverable, native
10 populations. This priority does not necessarily distinguish between habitat enhancement and
11 production in terms of which is presumed to be more beneficial for native fish at any particular
12 moment, although truly sustainable rebuilding may depend ultimately on preserving and enhancing
13 native fish habitat and completely natural production, while there may be a point early in a project in
14 which other types of production are critical to the beginning of rebuilding. The parties that develop
15 the mitigation plan for the Libby project should apply this priority as they develop the habitat
16 restoration and production elements of the plan and determine which elements deserve priority.
17
18
19

20 **Program Section(s):** **New 10.3B.12 (Lake Koocanusa/transboundary species)**

21 Source: Montana Department of Fish, Wildlife and Parks

22 Recommendation No.: 95-2/0014
23

24 **Recommendation:** The Montana Department of Fish, Wildlife and Parks recommended
25 adding a new section to the Libby Dam resident fish measures in Section 10.3B stating: “BPA shall
26 fund a three-year investigation of transboundary populations of rainbow trout, kokanee, bull trout
27 and westslope cutthroat trout in the British Columbia portion of Lake Koocanusa. This assessment
28 will include mapping of critical spawning and rearing habitats, population estimates, stock
29 identification, collection of biological information (age, growth, movement, etc.) and reservoir habitat
30 preferences. Study results will correlate biological effects with impacts of different operating
31 regimes of Libby Dam on the various species in the reservoir. All work will be subcontracted with
32 Jay Hammond, Fisheries Branch, BC Environment.”
33

34 **Draft:** The Council included the recommended language in the draft rule as a new Section
35 10.3B.12, with one modification. Rather than calling for Bonneville specifically to fund the
36 Department and/or British Columbia Environment to perform the recommended task, the Council
37 stated instead what the task was and that Bonneville should fund that task in consultation with the
38 Department and B.C. Environment, without specifying who is to be funded to perform the work.
39

40 **Comment:** The UCUT Tribes commented that the Kootenai Tribe of Idaho should be
41 added as a party to the Bonneville consultation. (196)
42

1 Bonneville commented generally that it should not be identified as a funding source for
2 projects in non-FCRPS areas that mitigate for resident fish impacts of project operations. If a
3 recommendation for a project in such an area is for a resident fish substitution project, for which
4 Bonneville is in theory an appropriate funding source, the project needs to be linked to specific
5 FCRPS-affected anadromous fish stocks in quantifiable way. Among the examples listed by
6 Bonneville was mitigation and mitigation planning for transboundary fish above Grand Coulee (which
7 includes this recommendation). Bonneville identified the Forest Service and Canada as possibly
8 more appropriate funding sources for the measure. (146)

9
10 Trout Unlimited, Montana Council, “strongly” supported the recommendation to fund the
11 transboundary study of resident fish, but recommended that it be amended to give highest priority to
12 habitat enhancement and evaluations for native resident species. (186)

13
14 The Flathead Basin Committee commented that the transboundary populations should be
15 managed in a way that recognizes their bi-national status. Measures taken to protect them should
16 be planned and paid for by a bi-national commission. (186)

17
18 **Findings:** The Council adopted this recommendation, with minor modifications. In
19 response to the comment by the UCUT Tribes, the Council added the Kootenai Tribe to the list of
20 parties to be consulted about the implementation of the study measure. With regard to
21 funding/implementation modification noted in the draft, it is the Council’s general policy not to direct
22 Bonneville to fund particular entities (and especially not particular people) to carry out particular
23 work. Instead, the Council defines the task or objective to be accomplished, leaving it to the fish
24 managers and Bonneville to design the specific project to accomplish the objective, using
25 competitive bids and/or other procurement procedures. The Council has concluded that this is the
26 most cost-effective way to protect, mitigate and enhance fish and wildlife resources and thus spread
27 and balance program spending and the cost impact to the power system. For these reasons the
28 Council finds that the measure adopted is more effective than the recommended language in
29 protecting, mitigating and enhancing resident fish, 16 U.S.C. §839(h)(5), (7)(C).

30
31 With regard to comments by Bonneville and the Flathead Basin Commission, the Council
32 notes that it has called for Bonneville to fund the study "consistent with Section 2.2G." Section
33 2.2G provides that when mitigation measures address transboundary species, Bonneville is to
34 negotiate with Canadian officials to ensure that the funding is shared appropriately and that
35 Bonneville's ratepayer funding is in proportion to what is legitimately the U.S. share of the project
36 responsibility and benefits.

37
38 With regard to the other Bonneville comments, the purpose of the recommended measure is
39 to investigate the impact of the construction and operation of Libby Dam on the transboundary
40 populations named in the measures. Libby Dam is part of the FCRPS, and so this measure is
41 appropriately addressed to Bonneville for funding.
42

1 In response to the comment from Trout Unlimited that the measure be amended to give
2 highest priority to habitat enhancement and evaluations for native resident species, the Council
3 understands this measure as calling for a study that will primarily investigate population, habitat and
4 natural production conditions, consistent with the comment. And as noted and discussed above, the
5 Council adopted a statement of priorities for the resident fish section, in Section 10.1B, that assigns
6 the highest priority statement to rebuilding to sustainable levels weak, but recoverable, native
7 populations. This priority does not necessarily distinguish between habitat enhancement and
8 production in terms of which is presumed to be more beneficial for native fish at any particular
9 moment, although truly sustainable rebuilding may depend ultimately on preserving and enhancing
10 native fish habitat and completely natural production, while there may be a point early in a project in
11 which other types of production are critical to the beginning of rebuilding. The parties that
12 implement this measure should apply this priority as they develop the study design and analyze the
13 results.

14
15
16
17 **Program Section(s): 10.3C (Dworshak resident fish mitigation/biological and**
18 **integrated rule curves)**

19 Source: Nez Perce Tribe

20 Recommendation No.: 95-2/0042

21
22 **Recommendation:** The Nez Perce Tribe recommended adding a measure to Section
23 10.3C, calling for Bonneville to fund the Tribe to conduct research, monitoring and evaluation
24 activities on resident fish populations in Dworshak Reservoir for the purpose of developing
25 biologically based or integrated rule curves for the operation of the reservoir.

26
27 **Draft:** Included in the draft rule as a new Section 10.3C.9, modified to state that
28 Bonneville is to fund this task in consultation with the Nez Perce Tribe, without specifying who is to
29 be funded to perform the work.

30
31 **Comment:** Section 10.3C.1 of the 1994 program called for the various entities interested
32 in Dworshak Dam operations to review the measures in the program and develop recommendations
33 for actions to mitigate losses of resident fish caused by the dam. Pursuant to this section, staff from
34 a number of entities -- the Council, the Nez Perce Tribe, Bonneville, the Corps of Engineers, the
35 Columbia Basin Fish and Wildlife Authority and the Idaho Department of Fish and Game --
36 reviewed the compatibility of anadromous fish flow operations at Dworshak Dam with resident fish
37 mitigation measures in the program, and recommended a series of relatively minor changes in the
38 current mitigation program, and also recommended the continued gathering of information for the
39 development of integrated rule curves for Dworshak operations, noting that Bonneville is currently
40 funding this work (166).

41
42 Based on this review, the Nez Perce Tribe submitted a comment intended to implement
43 these recommendations. The Tribe suggested revisions to almost all of the existing provisions of

1 Section 10.3C, primarily to tie these measures to the effort to develop the integrated rule curves and
 2 to otherwise update and clarify the existing language to reflect the results of the review. The Tribe's
 3 proposed revision called for the deletion of existing Section 10.3C.1, on the grounds that the
 4 consultation and review called for has been completed. The Tribe then called for revisions to the
 5 other sections in the existing program, as follows:

6
 7 ~~Idaho Department of Fish and Game, Nez Perce Tribe, National Marine Fisheries Service,~~
 8 ~~Bonneville, Bureau of Reclamation and Corps of Engineers~~

9
 10 ~~10.3C.1 In consultation with relevant entities, review the following measures and develop~~
 11 ~~recommendations for appropriate actions to mitigate losses of resident fish caused by~~
 12 ~~Dworshak Dam. Address provisions in the Council's salmon strategy and pertinent results~~
 13 ~~of the System Operations Review in the recommendations. Report the results of this~~
 14 ~~process to the Council within 90 days following adoption of this measure.~~

15
 16 Idaho Department of Fish and Game and Nez Perce Tribe

17
 18 10.3C.2 Analyze methods to avoid or minimize entrainment of kokanee at Dworshak Dam,
 19 including behavioral avoidance devices such as strobe lights, pneumatic hammers, bubble
 20 screens and sound generators, **as part of development of integrated rule curves for**
 21 **Dworshak Reservoir.**

22
 23 10.3C.3 Implement annual mid-water trawling to further define the relationship between the fishery,
 24 kokanee densities and the water year, **as part of development of integrated rule**
 25 **curves for Dworshak Reservoir.**

26
 27 10.3C.4 Implement annual kokanee spawner counts in appropriate creeks.

28
 29 10.3C.5 Implement a genetic inventory in the North Fork Clearwater River drainage to determine
 30 the genetic status of the endemic westslope cutthroat trout population including genetic
 31 introgression of the westslope cutthroat trout population by introduced rainbow trout.
 32 Based on the study, make recommendations regarding further planting of rainbow trout in
 33 the North Fork drainage. **Coordinate this measure with the Corps resident fish**
 34 **mitigation program and review addressed in section 10.3C.7.**

35
 36 Bonneville

37
 38 10.3C.6 Fund Idaho Department of Fish and Game and the Nez Perce Tribe to implement the
 39 above measures. **Work with the Corps and others to determine cost sharing**
 40 **opportunities on these measures.**

41
 42 Corps of Engineers

1 10.3C.7 In coordination with appropriate fish and wildlife agencies and the Nez Perce Tribe, fund
2 fish stocking activities in Dworshak Reservoir and in the North Fork of the Clearwater
3 River upstream from the reservoir consistent with the Memorandum of Understanding
4 between the **U.S. Fish and Wildlife Service**~~Idaho Department of Fish and Game~~ and
5 the Corps. Fund monitoring to determine the effects of the resident fish mitigation program
6 on endemic fish populations, particularly westslope cutthroat trout upstream from
7 Dworshak Dam. **Coordinate with Bonneville, Nez Perce Tribe, Idaho Department
8 of Fish and Game, and U.S. Fish and Wildlife Service to develop and implement a
9 review of this program to address native fish, watershed, and other concerns.**

10
11 Corps of Engineers,~~Bureau of Reclamation~~ and Bonneville
12

13 10.3C.8 **Fund investigations of the following items as part of development of integrated rule**
14 **curves for Dworshak Reservoir**~~in the System Operation Review process~~: 1) the
15 feasibility of avoiding downward fluctuations in Dworshak reservoir pool level from June 1
16 through August 31 to prevent dewatering smallmouth bass spawning nests; 2) the
17 feasibility of achieving normal full pool during June, if flood runoff forecasting allows, to
18 avoid rising pool levels and associated temperature depressions in near shore areas when
19 smallmouth bass are spawning; and 3) the feasibility of avoiding reservoir evacuation for
20 winter flood control or hydropower prior to the September 1 date identified in the current
21 flood control operating curve to promote terrestrial invertebrates deposition, which is an
22 important food source for trout and smallmouth bass. (250)
23

24 A staff consultation with the Nez Perce Tribe confirmed that the Tribe continued to support, as an
25 addition to these revised provisions, their original recommendation to add the provision specifically
26 calling for the evaluations to aid in development of the rule curves for the project.
27

28 Idaho Fish and Game commented that the call for Bonneville to consult with the Nez Perce
29 Tribe in the implementation of the new measure should also include IDFG. (227)
30

31 Bonneville commented that the development and implementation of integrated rules curves
32 for Dworshak Dam may encounter the same potential conflicts with the NMFS' Biological Opinion
33 as integrated rule curve operations at Hungry Horse and Libby dams. (229)
34

35 The Bureau of Reclamation commented that Reclamation should be deleted from the list
36 of agencies identified to mitigate for resident fish losses as a result of Dworshak, which was
37 constructed and is operated by the Corps in consultation with Bonneville, NMFS, IDFG and
38 the Nez Perce Tribe. (206)
39

40 The Corps of Engineers submitted a number of comments on the existing provisions of
41 Section 10.3C: With regard to existing Section 10.3C.1, calling for a review of Dworshak
42 mitigation activities, the Corps stated that a Memorandum of Understanding already exists for
43 mitigation of losses to resident fish as a result of the construction of Dworshak Dam and that is

1 not clear why the Council believes that additional measures are warranted. Also, the timing of
2 the System Operations Review may preclude compliance with the listed reporting schedule.

3
4 With regard to existing Section 10.3C.3, calling for mid-winter trolling to help define the
5 relationship between the fishery, kokanee densities and the water year, and existing Section
6 10.3C.4, calling for annual spawner counts, the Corps commented that it “seems reasonable”
7 that IDFG should already be taking these actions as part of normal management responsibilities.

8
9 With regard to existing Section 10.3C.5, calling for a genetic inventory of cutthroat in
10 the North Fork Clearwater to assess impacts by introduced rainbow trout, the Corps stated
11 that “if there is genetic introgression of the westslope cutthroat trout by rainbow trout, they
12 could be of hatchery or wild origin. Although we assume they will be able to differentiate
13 between the two, what would be the Council’s proposed action if they find introgression by wild
14 rainbow trout?”

15
16 And with regard to existing Section 10.3C.7, calling for the Corps to fund fish stocking
17 activities in Dworshak and the North Fork Clearwater consistent with a Memorandum of
18 Understanding between the Corps and IDFG, the Corps noted that it is currently working with
19 the appropriate parties to ensure compliance with the existing MOU. But the Corps noted that
20 this compliance may ultimately not include additional stocking in Dworshak Reservoir, because
21 existing concerns for competition with and the genetics of native trout stocks may make fish
22 stocking in the North Fork above the reservoir inappropriate. In addition, the Corps asked:
23 “[A]ssuming no further stocking of hatchery trout, should the focus of the monitoring effort
24 proposed by the Council be the effects of kokanee on endemic fish populations?” (224)

25
26 Individuals and groups from Orofino, Idaho, and other locations near Dworshak reservoir
27 expressed concerns about or objections to the practice of drawing down Dworshak reservoir for
28 salmon flow augmentation, because of impacts on kokanee, bass spawning and other resident fish,
29 impacts on recreation (and associated economic impacts) and the lack of benefits to juvenile salmon
30 from flow augmentation, especially when compared to juvenile transportation. Commenting parties
31 include Ken Hearn, Chairman, Clearwater Resource Coalition, Orofino; Lynn Card, Orofino.
32 (154, 156, 160)

33
34 **Findings:** The Council adopted the revisions to Section 10.3C suggested by the Nez
35 Perce Tribe and based on the review called for in prior Section 10.3C.1 (which has now been
36 deleted; the remaining sections have been reorganized and renumbered). The Council also adopted
37 the recommended additional provision (now 10.3C.6) calling for evaluations that will be part of an
38 effort to develop integrated rule curves at Dworshak Dam. The Council considers the revisions to
39 the existing provisions of Section 10.3C to consist primarily of changes intended to conform these
40 sections to the new measure and to each other, and to update based on current activities.

41
42 In response to the comment from the Idaho Department of Fish and Game, the Council
43 revised the new measure to add "appropriate state agencies" to the Bonneville consultation with the

1 Nez Perce Tribe. The provision had already been modified in the draft rule to state that Bonneville
2 was to fund this task in consultation with the interested entities.

3
4 In response to the comment from Bonneville, the Council acknowledges that the potential
5 for differences between NMFS' Biological Opinion and the development of integrated rule curves
6 at Dworshak Dam. As the comments from people in the area illustrate, more needs to be known
7 about the impact of Dworshak operations on resident fish, including operations to benefit
8 anadromous fish. If a problem exists, the Council must, under the Act, make an effort to produce
9 benefits for anadromous fish while protecting, mitigating and enhancing resident fish affected by this
10 project. Whether in fact a difference will exist between the Council's program and NMFS' salmon
11 recovery plan cannot be known until the evaluations take place and recommendations developed.

12
13 In response to the comment from the Bureau of Reclamation, Reclamation has been deleted
14 from the list of agencies with funding responsibilities for mitigation activities at Dworshak.

15
16 Finally, in response to the comments from the Corps of Engineers: First, what was Section
17 10.3C.1 has been deleted, because the informal review the Council called for did take place, with
18 participation by Corps personnel, and produced recommendations. Also, the reference to the
19 System Operations Review in Section 10.3C.8 has been deleted, as it has been recognized that it is
20 better to pursue these mitigation activities as part of the on-going effort to develop integrated rule
21 curves for Dworshak.

22
23 Second, the Council agrees with the Corps that IDFG (and the Nez Perce Tribe) should
24 implement the measures calling for annual kokanee spawner counts and for mid-winter trawling to
25 define the relationship between the fishery, kokanee densities and the amount of water in any
26 particular year. But the Council also continues to believe that these measures are part of the effort
27 to mitigate for the impact of Dworshak Dam operations on resident fish, and so Bonneville and the
28 Corps have mitigation and funding responsibilities under the Power Act and other authorities.

29
30 Third, with regard to former Section 10.3C.5 (now Section 10.3C.4), the Council calls in
31 general for a genetic inventory of the westslope cutthroat in the North Fork Clearwater. The
32 measure explicitly emphasizes that the inventory should include an evaluation of the possibility of
33 genetic introgression by introduced rainbow trout, because this is an identified matter of concern
34 with the westslope cutthroat population in this area. Introgression by native or wild rainbow trout
35 has not yet been identified as a matter of concern, and so it does not deserve mention at this time.
36 A proper genetic inventory should discover if wild rainbow are having this effect, and if so the fish
37 managers and the Council will have to address the issue.

38
39 Fourth, the Council revised Section 10.3C.7 to note correctly the existing Memorandum of
40 Understanding for Dworshak mitigation. The Council notes that it called for the Corps of Engineers
41 to fund fish stocking activities in consultation with the fish agencies and tribes and "consistent with"
42 the MOU. Thus a decision not to stock fish in Dworshak could be consistent with the Council's
43 program if in the consultation with the fish managers it is determined, for example, that fish stocking

1 activities in Dworshak are not consistent with the MOU. With regard to the scope and focus of the
2 monitoring program called for in this section, the Corps should raise this issue in the implementation
3 consultations with the fish managers and Bonneville.
4
5
6

7 **Program Section(s): 10.3C.1 (Dworshak resident fish mitigation/kokanee**
8 **entrainment)**

9 Source: Corps of Engineers

10 Recommendation No.: 95-2/0006

11 Source: Idaho Department of Fish and Game

12 Recommendation No.: 95-2/0057, /0067
13

14 **Recommendation:** The Corps of Engineers recommended revising what was Section
15 10.3C.2 in the 1994 program [now Section 10.3C.1] to call for the Idaho Department of Fish and
16 Game and the Nez Perce Tribe to test kokanee entrainment deterrent devices at Dworshak prior to
17 the summer of 1995. The Council deferred this recommendation from the anadromous fish
18 rulemaking.
19

20 The Idaho Department of Fish and Game submitted a “recommendation” relating to this
21 section (Recommendation No. 95-2/0067) simply to clarify that the section, which calls for efforts
22 to avoid or minimize entrainment of kokanee at Dworshak Dam, is an ongoing System Operation
23 Review project, along with the other SOR projects then noted in Section 10.3C.8. IDFG also
24 stated, in a cover letter entered into the record as Recommendation No. 95-2/0057, its support for
25 the existing program language on entrainment and supported funding of this work in 1995.
26

27 **Draft:** Included in the draft rule, modified to call for testing of these devices prior to the
28 summer of 1996. The IDFG recommendation and cover letter did not propose language to amend
29 or expand the section, and so the Council did not propose an amendment based on that
30 recommendation.
31

32 **Comment:** Idaho Fish and Game commented that to test kokanee entrainment devices at
33 Dworshak prior to the summer of 1996 requires a commitment of money now from Bonneville or
34 the Corps. (174, 227)
35

36 The Corps of Engineers noted that the action proposed -- to test kokanee deterrent devices
37 -- presupposes that the analysis of behavioral avoidance methods and devices called for in the
38 existing language will show these devices to be beneficial, when this is unlikely to be the case. (224)
39

40 As noted above, the Nez Perce Tribe, based on the results of the review called for in
41 former Section 10.3C.1, submitted a comment that called for revisions to all of the existing
42 provisions of Section 10.3C. The revisions suggested by the Nez Perce, and the reason for this
43 proposal, have been explained above. The Nez Perce's recommended revision to existing Section

1 10.3C.2 (which became Section 10.3C.1) proposed to amend the existing language to read:
2 "Analyze methods to avoid or minimize entrainment of kokanee at Dworshak Dam, including
3 behavioral avoidance devices such as strobe lights, pneumatic hammers, bubble screens and sound
4 generators, **as part of development of integrated rule curves for Dworshak Reservoir.**" The
5 Tribe's revision did not include the language recommended by the Corps calling for the testing of
6 kokanee deterrent devices before the summer of 1996. (250)

7
8 **Findings:** The Council did not adopt this recommendation, which was superseded by the
9 comment from the Nez Perce Tribe proposing a different revision to this section (now Section
10 10.3C.1 in the amended program) and other sections. Rather than specify a particular date for
11 testing kokanee deterrent devices, the revised section notes instead that analyzing methods to avoid
12 or minimize entrainment will be part of the series of evaluations intended to prepare for the
13 development of integrated rule curves. The Corps itself, the source of the original recommendation,
14 questioned any present commitment to testing kokanee deterrent devices. The Council concludes
15 that the recommendation was less effective than the recommended language to protect, mitigate and
16 enhance resident fish and wildlife, 16 U.S.C. §839b(h)(7)(C), and that the Council's approach
17 better complements the coordinated activities of the region's fish managers than the recommended
18 language, 16 U.S.C. §839b(h)(6)(A), (7)(B).

19
20
21
22 **Program Section(s): 10.3E.3 (Grand Coulee retention time)**

23 Source: Colville Confederated Tribes

24 Recommendation No.: 95-2/0066

25 Source: Spokane Tribe

26 Recommendation No.: 95-2/0074

27
28 **Recommendation:** The Council added Section 10.3E.3 during the anadromous fish
29 rulemaking process in December 1994, calling on Reclamation to operate Grand Coulee so as to
30 provide no significant deterioration of water retention time from June 15 through September, to draft
31 the lake no lower than elevation 1240 in May and 1280 in June, July and August, and to develop
32 additional information on the retention time concept. The Council decided at that time not to adopt
33 specified retention times as suggested by the UCUT Tribes. These recommendations from the
34 Colville Confederated Tribes and the Spokane Tribe reintroduced specific retention time standards,
35 with specific minimum reservoir elevations.

36
37 The Spokane Tribe's recommendation was more extensive: The Tribe recommended that
38 the project operator (the Bureau of Reclamation, although the Corps of Engineers has some control
39 over project operations as part of its system flood control responsibilities) be directed to operate
40 Grand Coulee to provide water retention times "at the maximum length of time possible, and at a
41 minimum of 40 days, for June 15 through the end of September." By mid-April the reservoir is to
42 be as low as it is going to get, and from April to June 15, operate the reservoir "for the maximum

1 water retention times that have been historically achievable. Additionally, minimize reservoir
2 fluctuations."

3

4 The recommendation further called for the project operator to "[m]eet the following end-of-
5 month elevation targets while attempting to maintain the monthly mean water retention times":

6

Period	Elevation	Retention
January	1270	45 days
February	to 1260	40 days
March-	no lower than	30 days
April 15	1250	
April 16	1255	30 days
May	1265	35 days
June-	at 1288 (2 feet	40-60 days or maximum historically
December	below full pool)	achievable for each month

7

8 In addition, the project operator is to reduce the maximum water level from elevation 1288 to 1283
9 "every other year from June to August to re-establish terrestrial vegetation in littoral areas," then refill
10 to 1288 by September 1.

11

12 Reclamation and the Corps of Engineers are to treat these operating guidelines as hard
13 constraints, and include them in the PNCA data submittals, the System Operation Review EIS and
14 in any other forum for long-term planning and operation of the Columbia River Power System. In
15 addition, Bonneville, Reclamation and the Corps are to develop a biological rule curve based on the
16 above recommended guidelines to protect resident fish in Lake Roosevelt. And, the Fish Passage
17 Center and CBFWA are to incorporate the above operating guidelines as part of their Detailed
18 Fishery Operating Plan (DFOP) presented annually to the Council.

19

20 The Colville Confederated Tribes submitted only a chart of "minimum daily lake elevations
21 and minimum daily water retention times." The Colville Tribes' recommended elevations and
22 retention times are the same as those recommended by the Spokane Tribe in January and February,
23 and from April 16 through May. From March to April 15, the Colville Tribes recommend an
24 elevation of 1240 and retention time of 25-30 days (compared to 1250 and 30 days from the
25 Spokane Tribe). For the rest of the year -- June through December -- the Colville Tribes'
26 recommended elevations and times are sufficiently different to warrant repeating that part of their
27 chart:

28

Period	Elevation	Retention
June	1283	35 days
July	1283	40 days
August	1283	45-50 days
September	1288	60 days
October	1290	55-60 days

November	1290	45 days
December	1290	45 days

1
2 **Draft:** The Council included the language recommended by the Spokane Tribe in the draft
3 rule, partly because it was more extensive than that submitted by the Colville Tribes. The Council
4 also took this action on the understanding that the two recommending entities did not recommend
5 these as competing proposals but as similar proposals developed apart and thus differing slightly but
6 not significantly. The Colville Tribes' recommendation was included in the draft rule appendix
7 "Other Amendment Recommendations On Which the Council Specifically Invites Comment." Note
8 also that the Council proposed the deletion of Section 5.4B.3 (as discussed above in the findings for
9 Section 5) to correspond to the draft revision to Section 10.3E.3.

10
11 **Comment:** The UCUT Tribes collectively and the Spokane Tribe individually commented
12 in strong support of the proposed operating criteria to protect resident fish at Lake Roosevelt, and
13 the development of biological and integrated rule curves, as consistent with the management
14 objectives and legal rights of the Spokane Tribe. The existing language in the Council's program
15 does not afford adequate protection for resident fish resources, as in low flow years it will be
16 impossible to simultaneously hold Lake Roosevelt at elevation 1280, implement the IRCs at Hungry
17 Horse and Libby, and meet the salmon flow targets; in this event, the UCUT Tribes believe the Fish
18 Operations Executive Committee and the Technical Management Team would first relax the Lake
19 Roosevelt elevations. Thus the Council's language may be inconsistent with Sections 4(h)(6)(A)
20 and (D) of the Act with regard to the Spokane Tribe's management objectives for the Lake
21 Roosevelt fishery. If the 1280 minimum summer elevation "is treated as a hard constraint in low
22 runoff years, the Council's criteria would be close to what we recommend." The Tribes submitted
23 and commented on information and data sets supporting the recommendation, emphasizing the
24 effect of reservoir releases and different water retention times on plankton and zooplankton nutrients
25 in the reservoir and the relation to food sources and fish growth, which indicates declining
26 zooplankton levels when water retention times are low and declining fish growth as zooplankton
27 levels go down.

28
29 The UCUT Tribes noted that they were participating in the Columbia Basin Fish and
30 Wildlife Authority's Water Equity Team discussions in an attempt to develop collective
31 recommendations about system operations to provide flows for salmon with "upfront mitigation in
32 upriver storage reservoirs and blocked areas for resident fish that will be impacted by salmon flow
33 measures." Until those collective efforts are successful, the Tribes expect the Council to adopt their
34 recommended operating criteria, as based upon the best available scientific evidence as required in
35 Section 4(h)(6)(B) of the Act. The Spokane Tribe added that it supports the efforts of the lower
36 river tribes to recover salmon populations; that the Spokane Tribe has been badly hurt by the loss of
37 salmon as well and does not have the option of trying to recover salmon; that the Tribe must work
38 with what has been given to them -- the lake behind Grand Coulee; that the Tribe fears that the
39 experimenting that is going on to help salmon "again is hurting the Spokane Tribe"; and that the
40 Tribe' technical people working with the lower river tribes can find ways to accomplish both. (174,
41 188, 196)

1
2 The Colville Confederated Tribes commented in support of the reservoir elevations and
3 retention times identified in the amendments for the operation of Grand Coulee Dam and Lake
4 Roosevelt, as well as funding for evaluation and refinement of those criteria. (174, 226)
5

6 The National Park Service, Coulee Dam National Recreational Area, commented generally
7 that it supported recommendations calling for greater environmental protection for resident fish and
8 wildlife habitat, particularly in Eastern Washington, and for balancing the needs of anadromous fish
9 and resident fish. The Park Service then noted that appropriate measures might include, but are not
10 limited to, “establishing formal water retention time standards and reservoir elevations for Grand
11 Coulee Dam, and establishing a reservoir-specific process to coordinate and track storage reservoir
12 operations during critical anadromous migration periods.” “[T]he scientific understanding of the
13 concept of water retention standards [is], at present, adequately defined to allow for specific
14 management decisions.” Not only would resident fish and wildlife benefit, but so would Park
15 Service visitor services and concession operations, supporting “a large local and visiting recreational
16 public” and contributing “significant economic and social benefits to the surrounding communities.”
17 (228)
18

19 The Bureau of Reclamation supported in general the concept of integrating planning and
20 implementation of anadromous fish and resident fish and wildlife measures, to minimize impacts from
21 salmon flow measures and to capitalize on opportunities to enhance resident fish conditions with
22 salmon flows. But Reclamation noted that the recommendations for water retention times and
23 reservoir elevations at Grand Coulee Dam and, possibly, the integrated rule curves called for at
24 Hungry Horse Dam conflict with the salmon flow measures in NMFS’ 1995 Biological Opinion and
25 Proposed Snake River Salmon Recovery Plan and the anadromous fish portions of the Council’s
26 program. “It would not be appropriate” to adopt measures that directly conflict with current efforts
27 to improve flows for anadromous fish. Section 4(h)(7) of the Act requires the Council to resolve
28 inconsistencies in the recommendations. Since the salmon flow recommendation conflicts with the
29 recommended storage reservoir criteria, the Council must resolve the inconsistencies “and obtain the
30 necessary agreements with the appropriate entities.” Thus while Reclamation welcomed new ideas
31 on how to integrate the needs of anadromous and resident fish, it expected the Council to carefully
32 evaluate specific proposals. (143, 206)
33

34 The Corps of Engineers commented that Reclamation and the Corps may not be able to
35 treat these operating guidelines as “hard constraints” without NMFS concurrence. (224)
36

37 The Washington Department of Fish and Wildlife commented that it is premature to
38 incorporate the specific operating criteria for Grand Coulee Dam and Lake Roosevelt listed in the
39 draft amendments given the fact that the agency and tribal process to reconcile the needs of both
40 resident and anadromous fish (CBFWA’s Watershed Equity Team) has not been completed. Such
41 a strategy will likely require “short-term deviations from the ideal operations for Grand Coulee
42 resident fish populations in order to achieve recovery of anadromous fish stocks downstream,”

1 accompanied by a package of mitigation actions to compensate for impacts to resident fish and
2 wildlife. (230)

3
4 The Montana Department of Fish, Wildlife and Parks commented that the proposed
5 operating criteria “attempt to achieve water retention times during the March-April period of 30
6 days. The NPPC modelers have demonstrated that this goal is nearly always impossible to achieve
7 hydrologically. Language should reflect the true range of hydrologic possibility.” (202).

8
9 The Columbia River Inter-Tribal Fish Commission and one of its members, the
10 Confederated Tribes of the Umatilla Indian Reservation, opposed adoption of the recommended
11 retention times and reservoir levels. The water management recommendations to stabilize the water
12 levels near full pool and increase water retention times do not indicate whether this water
13 management strategy can be implemented in all years or whether the result will provide substantial
14 improvements over current conditions to achieve the desired fishery objectives. Furthermore, there
15 is no clear and supportable data that relates numbers of fish to the water management strategy
16 proposed. Yet implementation of the proposed water management strategy for Lake Roosevelt
17 would further reduce the system’s ability to meet anadromous fish flows in the mid and lower
18 Columbia River. Comments from both CRITFC and the Umatilla Tribes include references to data
19 and studies indicating that the Lake Roosevelt fisheries are healthy and expanding; that water
20 retention times are quite variable and do not seem to have noticeably declined due to the water
21 budget; that there is nothing correlating any decline in fish numbers to changes in water management;
22 that other factors correlate with and may be responsible for observed changes in lake zooplankton
23 production; and that implementation of this water management strategy would impact efforts to help
24 critically declining salmon fisheries downstream. The Umatilla Tribes and CRITFC recommend that
25 the Council eliminate the proposed water management strategies for Grand Coulee since the
26 primary directive of the Northwest Power Act is to “protect, mitigate and enhance” fish and wildlife
27 resources, “especially anadromous fish”. Rigid operating guidelines should not be imposed on any
28 hydropower or other water management facilities that might preclude flow strategies necessary to
29 restore and maintain anadromous fish resources protected under the lower river treaties. (232,
30 233)

31
32 The Oregon Department of Fish and Wildlife recommended replacing the proposed
33 amendment with whatever agreements and recommendations are developed by the Watershed
34 Equity Team. While stabilizing water level near full pool is very likely the best water management
35 strategy for resident fish in Grand Coulee, it is unclear whether this strategy will result in significant
36 improvements over current conditions, achieve biological objectives, or be a cost-effective
37 alternative to other measures beneficial to resident fish. The conclusion that improved fish
38 production will result from increased water retention time does not automatically follow from
39 correlations between high water retention times, zooplankton biomass, fish growth and entrainment.
40 The fish production benefits of increased retention times are unknown. Resident fish benefits of the
41 suggested operating strategies may be marginal due to annual variability in weather and runoff
42 conditions. Recommendations for improved resident fish production based solely on water
43 management ignore other alternatives which may also achieve desired production goals at similar or

1 lower costs without constraint on power production or anadromous fish measures. The proposed
2 operation is in direct conflict with operation of Grand Coulee for the listed Snake River stocks
3 specified in NMFS' 1995 Biological Opinion. Decreased flows in August compared to the 50-year
4 average flow are significant and would increase the travel time and decrease the survival of
5 subyearling fall chinook and ESA spring/summer chinook migrating through the lower Columbia.
6 ODFW also questioned the accuracy of the method used to estimate water retention time by the
7 UCUT Tribes, noting that use of this method could arbitrarily constrain operation of Grand Coulee
8 to meet lower Columbia flow targets. (234)

9
10 The Idaho Department of Fish and Game commented that the measure does not provide
11 adequate information to justify the proposed activities. As the measure calls for maximizing water
12 retention time, the Department must assume food production is the perceived problem in Lake
13 Roosevelt. However, information released by researchers indicate that kokanee from Lake
14 Roosevelt exhibit excellent growth, which would indicate adequate food supplies. (227)

15
16 The American Fisheries Society, Oregon Chapter, opposed the recommended water
17 retention times and reservoir levels. "Reservoir management should be made in context with the
18 regional needs for managing anadromous and resident fish. Impacts on reservoir fisheries that
19 center on non-native species should be secondary to recovery strategies for anadromous fish."
20 (199)

21
22 Oregon Trout opposed the recommended water retention times and reservoir levels at
23 Grand Coulee. Oregon Trout generally opposed any amendment that limited the flexibility of water
24 managers to respond to recovery needs and provide adequate flows for listed species, anadromous
25 and resident. With specific regard to the Grand Coulee retention and reservoir levels, Oregon Trout
26 stated that there is no scientific evidence to back up the proposal, and, more important, unlike
27 reservoirs in Montana, Lake Roosevelt water levels affect primarily "resident hatchery fish
28 populations and exotic fish species that support robust sport fisheries." Reservoir levels in Montana
29 may have impacts on resident bull trout, a candidate species under the ESA. (168, 209)

30
31 A representative with the Sierra Club and Save Our Wild Salmon commented generally that
32 they had emphasized over the last few years that drawdowns of the lower Snake River and John
33 Day reservoirs in the salmon migration corridor have the prospect of improving the flows and river
34 conditions for salmon without requiring the huge amounts of flow augmentation that horribly impact
35 resident fish in the upriver storage reservoirs. (174)

36
37 A number of individual commentors supported efforts to limit flow augmentation for juvenile
38 salmon migration that results in reservoir drawdowns at Grand Coulee, on the grounds that flow
39 augmentation for salmon migration is not working and yet the fluctuating water levels adversely
40 affect productive trout, kokanee, walleye and bass fisheries in Lake Roosevelt, thus also affecting
41 recreational opportunities and local economies. Commentors included Al Stangland, Edwall,
42 Washington; J.A. Boswell, Cheney, Washington; Dr. and Mrs. Jerry McKellar, Colville,

1 Washington; Tracy R. Parr, Spokane Washington; Jim Scribner, Davenport, Washington; and Gary
2 Fields, Nine Mile Falls, Washington. (164, 171, 175, 179-81)

3
4 A number of individual commentors either specifically objected to the recommended water
5 retention times and reservoir levels at Grand Coulee or generally objected to proposals that would
6 adversely affect native anadromous fish by reducing the flows needed for juvenile salmon migration,
7 especially if the resident fish to be benefited are non-native fish species such as rainbow trout,
8 walleye, perch and bass. Commentors included Bhagwati Poddar and Saradell Poddar, Astoria,
9 Oregon; Everett Peterson, Roseburg, Oregon; Richard Hardin, Grants Pass, Oregon; Sue Knight,
10 Portland, Oregon; Scott Bischke, Corvallis, Oregon; and Steven M. Bruce, Boise, Idaho. (162,
11 165, 173, 182, 201, 211)

12
13 **Findings:** The Council adopted the Spokane Tribe's recommended minimum reservoir
14 levels and water retention times, and accompanying language. (In the final rule, the Council divided
15 the recommended language into three sections, Sections 10.3E.3, 10.3E.4 and 10.3E.5, to reflect
16 the different tasks and implementors specified in the recommendation.) The Council adopted the
17 specific and detailed Spokane Tribe recommendation instead of the less extensive recommendation
18 from the Colville Tribes. The Council did not see these as competing proposals but two attempts to
19 express the same measure, noting that the Colville Tribes did not comment in favor of their
20 recommendation as opposed to the other. The Council modified the recommendation by retaining
21 language from the existing program (with modest revisions) calling on the fish managers to
22 "[d]evelop additional scientific information on the benefits and need for a water retention time
23 standard and submit to the Council as soon as possible. The Council will review and refine this
24 measure based on anticipated submissions by the Columbia Basin Fish and Wildlife Authority in
25 1995."

26
27 The Council's view of the recommended reservoir levels and water retention times for
28 Grand Coulee Dam is similar to the position the Council stated in the December 1994 anadromous
29 fish rulemaking with regard to the recommended measures for juvenile salmon flows and the
30 "integrated rule curves" for Hungry Horse and Libby dams. The recommendation here is for
31 operational criteria for Grand Coulee Dam. The UCUT Tribes and the Colville Tribes supported
32 these recommended constraints on reservoir operations with scientific information focused both on
33 the biological problems the Tribes see in the reservoir and the biological value of the proposed
34 constraints. Many commentors were skeptical of the water/nutrient retention time concept in
35 general as a key limiting factor in fish survival and/or of these particular operational constraints.
36 They questioned whether the reservoir constraints recommended would produce the biological
37 benefits suggested by their proponents, and they questioned whether there is a biological need in this
38 reservoir for more protective operational criteria, given the status of the resident fish populations.
39 The best available scientific knowledge is far from certain, and the different fish managers arrived at
40 different conclusions from this same information; the comments from the Columbia River Inter-Tribal
41 Fish Commission, the Umatilla Tribes and the Oregon Department of Fish and Wildlife were
42 particularly notable in this regard.

1 Considering the experience, expertise, management authorities and legal rights of the
2 particular fish managers in Lake Roosevelt who submitted the recommendation -- the UCUT Tribes
3 and the Colville Tribes -- the Council accepts their judgment on the expected biological value of the
4 recommended reservoir constraints and has adopted them into the program to be implemented as a
5 system operation constraint. (The Council also added comparable introductory language to Section
6 10.3 to apply the same implementation standard to all of the reservoir operation constraints in
7 Section 10.3. For a discussion as to how the program's river operations and reservoir constraints
8 are to be understood and implemented in relation to each other and to other system objectives, see
9 the findings for the recommendation for Section 5.1D.2.). This is not to say that the Council
10 accepts these judgments conclusively. The scientific data are far from clear, and there are genuine
11 disagreements among capable scientists on these matters. Thus the Council adopts these reservoir
12 constraints with these observations:
13

14 First, it is not clear how these operating constraints for Grand Coulee can be achieved along
15 with the other authorized purposes of the hydropower system. The Council's own hydrological
16 analyses indicate that it is fairly likely that the system can achieve these constraints in most years,
17 especially the minimum reservoir levels. The Council also recognizes that these reservoir constraints
18 may not be achievable in some years, especially the water retention times. As noted in the Council
19 staff's analysis and in the comment by the Montana Department of Fish, Wildlife and Parks, the
20 system has a harder time achieving the water retention times, especially during times of high water.
21 Inevitably, implementing these reservoir constraints and the other objectives of the system in any
22 given year will require careful annual planning and in-season management, especially if the in-season
23 analysis indicates that measures of equal priority may conflict, such as meeting the specified
24 reservoir levels and water retention times and achieving the delivery of water from storage for flow
25 augmentation during the key salmon migration periods. In such instances the fish managers and river
26 and reservoir operators are not to presume that one measure or set of measures has automatic
27 priority, but instead are to consult (through the Fish Operations Executive Committee and the Fish
28 Passage Center) to meet specified river and reservoir operations to the fullest extent possible and to
29 recommend to the Council for decision the best mix of operations to best meet the needs of fish
30 when tradeoffs are inevitable. See Sections 5.1A (FOEC), 5.1B (Fish Passage Center), and
31 5.1D.2 (priorities for competing uses of the hydropower system) and the findings for these sections
32 above.
33

34 Second, the Council and the region must continue to make changes in the hydroelectric
35 system to make all of the specified water volumes and other flow measures, the reservoir constraints
36 and the operational objectives more achievable and to minimize the need for or the impacts of
37 tradeoffs, while carrying out the other purposes of the Northwest Power Act (especially the power
38 supply purpose). One of the expanded duties of the Fish Passage Center (see Section 5.1B.1) will
39 be to monitor and analyze data to assist in implementing the reservoir operating criteria and to better
40 provide for the needs of both the anadromous and resident fish.
41

42 Third, the region must continue to evaluate the biological assumptions that underlie these and
43 the other reservoir and river operational criteria in the program to see if changed river and reservoir

1 operations are achieving the expected biological benefits. Thus, for example, the fish managers must
2 pursue diligently the Lake Roosevelt monitoring and evaluation program (see Section 10.B.5) to
3 develop information to address this issue and the concerns raised in the comments. As new
4 information emerges, the region must be prepared to adjust these operational criteria in an adaptive
5 management strategy. And it is because of the need to reduce the scientific uncertainty that the
6 Council retained and revised the language calling for the fish managers to develop additional
7 scientific information as soon as possible on both the benefits of and need for the water retention
8 time standard.

9
10 The Council recognizes that the state, federal and tribal fish managers have been meeting
11 throughout 1995 in an attempt to reach an agreement among the fish managers on river and
12 reservoir operations. The Council retained the program language noting that the Council will review
13 and refine the Grand Coulee reservoir constraints after CBFWA reports to the Council in 1995.
14 The Council decided not to defer adopting these constraints while waiting for the outcome of the
15 CBFWA discussions, nor does the Act require that it wait for a consensus agreement (as
16 Reclamation suggested in its comments), just as the Council did not wait for the fish managers to
17 reach consensus before it adopted the mainstem flow measures or operational objectives or the
18 Hungry Horse and Libby IRCs in December 1994. The Council's decision in this regard is based
19 partly, as noted above, on the consideration the Council gave to the biological and management
20 judgment of the tribal fish managers at Lake Roosevelt, and partly on the basis of the Council's own
21 river and flow analysis, which indicates that the system can meet the reservoir constraints much of
22 the time (especially the minimum reservoir levels) with what appears to be minimal impact on
23 anadromous fish flows in the Columbia, especially in the spring. The minimum reservoir levels and
24 retention times do not appear to prevent the system from delivering the water volumes specified in
25 the program for salmon migration flow augmentation, although the effect of the reservoir constraints
26 in some years may be to spread out the delivery of those volumes. Flow impacts may be higher in
27 the summer, especially late summer, although even here the expected impacts on flows do not
28 appear to be significant. This is primarily because some water stored in Grand Coulee that may
29 have been released in spring is saved until summer due to the effects of the spring minimum reservoir
30 levels, ameliorating what otherwise could be the impact of the summer reservoir levels and retention
31 times. Conflicts exist, but they appear to be far more manageable than the commentators believe.
32 Only an adaptive management approach will enable the fish and river managers to find out how the
33 various flow measures and reservoir constraints coexist and how to optimize the system to protect
34 both anadromous and resident fish. The Council saw no indication that adopting the Grand Coulee
35 operating constraints would prevent the system from providing sufficient flows to increase the
36 survival of juvenile anadromous fish migrating through the system.

37
38 The Council is also aware, as a number of commentators pointed out, that NMFS' 1995
39 Biological Opinion does not contain these Grand Coulee operating constraints (or the Hungry Horse
40 or Libby IRCs). As the Council has noted many times, its obligations under the Northwest Power
41 Act are not the same as NMFS' under the Endangered Species Act. The Council must give as
42 much attention to protecting and mitigating non-listed resident fish (and anadromous fish) as to the
43 listed salmon runs. On this basis it is not surprising that the Council and NMFS might reach

1 funding source for projects in non-FCRPS areas that mitigate for resident fish impacts of project
2 operations. If a recommendation for a project in such an area is for a resident fish substitution
3 project, for which Bonneville is in theory an appropriate funding source, the project needs to be
4 linked to specific FCRPS-affected anadromous fish stocks in quantifiable way. Among the
5 examples listed by Bonneville was resident fish mitigation assessments and projects above Hells
6 Canyon Dam (which includes this recommendation). Bonneville identified Idaho Power and the
7 Bureau of Reclamation as potentially more appropriate funding sources for the measure. (146)
8

9 Bonneville further commented that at the request of regional resource managers and the
10 Council, Bonneville has in the past funded enhancement measures above the Hells Canyon Complex
11 as off-site mitigation for impacts caused to anadromous fish by the FCRPS. Bonneville
12 incorporated by reference its position as stated in its comments on the Phase IV amendments:
13 losses of anadromous fish above Hells Canyon Dam, requiring resident fish substitution, were not
14 caused by the FCRPS. Bonneville is already funding the Lower Snake River Compensation Plan,
15 the mitigation Congress specified for the construction of four Corps projects on the lower Snake
16 River. Additional mitigation for those projects is unnecessary at this time. However, when funding
17 is available and a resident fish substitution measure is appropriately ranked for implementation,
18 Bonneville will continue to consider funding such measures on a case-by-case basis. (229)
19

20 The Western Montana Electric Generating and Transmission Cooperative commented
21 generally that Bonneville's responsibility to fund any project in the Snake River drainage above Hells
22 Canyon complex is extremely limited, as the Hells Canyon complex is owned and operated for the
23 benefit of Idaho Power Company, not Bonneville. Only those projects specifically related to federal
24 dams should be the responsibility of Bonneville ratepayers. In no event should Bonneville's funding
25 role for these types of projects be expanded (221). The Public Utility District No. 1 of Okanogan
26 County stated that it agreed with the comments of WMG&T in this rulemaking. (222)
27

28 **Findings:** The Council did not adopt this recommendation, for a number of reasons. First,
29 the program calls for the completion of resident fish loss assessments for hydropower facilities
30 throughout the Columbia basin (what was Section 10.1A.1, renumbered and revised into Section
31 10.1C.1). In Section 10.1C, the Council calls on the fish managers to develop an approach to loss
32 assessments that is consistent and coordinated for all projects. The Council's staff is currently
33 working with the Resident Fish Committee to develop such an approach, based on the approach
34 used for the loss assessments for the Hungry Horse project in Montana. Thus if a loss assessment
35 under this program is appropriate at American Falls, that loss assessment will be encompassed
36 within the coordinated loss assessment process called for in Section 10.1. The Council finds that a
37 coordinated approach is likely to be more effective than the recommended language to protect,
38 mitigate and enhance resident fish and wildlife, 16 U.S.C. §839b(h)(7)(C), and that the Council's
39 approach better complements the coordinated activities of the region's fish managers than the
40 recommended language, 16 U.S.C. §839b(h)(6)(A), (7)(B).
41

42 Second, the comments from Bonneville, WMG&T and especially Reclamation make a
43 persuasive case that neither Reclamation nor Bonneville is responsible for the hydropower impacts

1 on resident fish at the American Falls project. On the other hand, the Tribes' explanation with the
2 recommendation noted that federal and non-federal projects in the upper Snake, including American
3 Falls, act together to store water and produce power, some of which Bonneville markets, and thus
4 American Falls with the other projects contributes to and is part of the FCRPS broadly considered.
5 The Tribes also explained that they recognize that other entities should share the burden of the
6 mitigation responsibilities with Bonneville. The Council is not willing to make a definitive decision on
7 this issue at this time. When the coordinated loss assessment program is implemented, the Tribes
8 will have to demonstrate that performing a loss assessment at American Falls is appropriate under
9 the Council's program as at least partly the responsibility of the federal hydropower system and thus
10 Bonneville's ratepayers. Otherwise, these issues will have to be addressed by Idaho Power in the
11 FERC process.

12
13
14
15 **Program Section(s): 10.3E, 10.8C (Fort Hall Indian Reservation)**

16 Source: Shoshone-Bannock Tribes

17 Recommendation No.: 95-2/0038

18
19 **Recommendation:** The Shoshone-Bannock Tribes recommended moving existing
20 Sections 10.8C.8 to 10.8C.10, concerning trout production and habitat restoration and
21 enhancement activities on the Fort Hall Reservation, to Section 10.3E. The Tribes explained that
22 the production and habitat actions called for are better characterized as resident fish mitigation
23 measures instead of as resident fish substitution measures. The recommendation also proposed
24 adding the Bureau of Reclamation and Other Relevant Entities along with Bonneville as the funding
25 entities for these projects.

26
27 **Draft:** Included in the draft as new Sections 10.3E.7 to 10.3E.9.

28
29 **Comment:** The Idaho Department of Fish and Game did not concur in the proposal to
30 move these sections to the resident fish mitigation section of the program. (227)

31
32 The Bureau of Reclamation commented, with regard to this and other recommendations that
33 call for Reclamation to fund resident fish studies and projects, that Reclamation funding for these
34 purposes would have to come from Congressional appropriations and that the earliest funding could
35 be provided, assuming Congress agrees, would be 1998. Moreover, Reclamation noted that
36 Section 4(h)(8)(C) of the Act provides that when enhancement measures deal with impacts caused
37 by factors other than electric power facilities, the additional measures are to be implemented in
38 accordance with agreements among the appropriate parties providing for the administration and
39 funding of the measures. This and other proposed amendments ask Reclamation to fund projects
40 when it is not clear (1) what impact factors the project is mitigating; (2) for what dam and reservoir;
41 and (3) what agreements have been reached with the appropriate parties to provide for
42 administration and funding of the project. Reclamation law requires reimbursement of project costs,
43 including fish and wildlife mitigation costs, from project beneficiaries unless exempted by Congress.

1 Thus if Reclamation is to fund a project to offset fish habitat losses associated with hydropower and
2 non-hydropower impacts at a Reclamation project, then irrigators, ratepayers and non-reimbursable
3 funding from Congress (related to flood control) would all need to provide funds. (143, 206)
4

5 **Findings:** The Council adopted the recommendation to move these measures, renumbered
6 in the final rule as Sections 10.3E.9, 10.3E.10 and 10.3E.11. The Tribes concluded that these
7 projects should be considered to be mitigation for the impacts of the hydropower system on native
8 resident fish, and the Council deferred to their judgment. The Council also modified Section
9 10.3E.9 (what was 10.8C.8 in the 1994 program and 10.3E.7 in the draft rule) slightly to note that
10 the production facility called for is to produce "native" trout species for stocking on the Fort Hall
11 reservation. This is consistent with the priorities set forth in Section 10.1B of the program and
12 makes explicit what, as far as the Council understands, has always been the intent of the project.
13

14 With regard to the comments by the Bureau of Reclamation, note that Bonneville, the
15 Bureau and "Other Relevant Entities" have been assigned in general the funding responsibility for
16 these existing measures. The Council notes that, as explained in the comments and findings on the
17 last recommendation, there are compelling reasons why assigning all of the funding responsibility for
18 these measures to Bonneville's ratepayers is not an appropriate course of action, although the
19 Council does not agree that the federal hydropower system has no mitigation responsibilities in the
20 area above Hells Canyon. The same may be said of Reclamation's responsibilities. For this and
21 similar projects to be implemented, an appropriate cost-sharing arrangement needs to be worked
22 out. The Council concludes that it would be best to defer the question concerning specific funding
23 responsibilities until the projects are designed and readied for implementation, to give the interested
24 parties a chance to address this issue in the first instance.
25
26
27

28 **Program Section(s): 10.3E.12 (Coeur d'Alene Tribe/Post Falls Dam)**

29 Source: Coeur d'Alene Tribe

30 Recommendation No.: 95-2/0011
31

32 **Recommendation:** Section 903(b)(9) of the 1987 program called for the Washington
33 Water Power Co. to continue the operations of Post Falls Dam so as to minimize impacts on the
34 fish in Lake Coeur d'Alene and the Spokane River. This section stated further that "The Council
35 expects [WWP] to consult with the Coeur d'Alene Tribe, the Idaho Department of Fish and Game,
36 and other interested fish and wildlife agencies and tribes to develop and initiate an evaluation of the
37 effects of hydropower operations at Post Falls Dam on fish in Lake Coeur d'Alene and the
38 Spokane River." The Council deleted this section during the 1993 resident fish program
39 amendments, apparently on the ground that it had been completed. The Coeur d'Alene Tribe
40 recommended that the deleted language be reinstated, primarily on the grounds that a meaningful
41 consultation with the Tribe has not yet taken place.
42

43 **Draft:** Included in the draft rule as a proposed new Section 10.3E.10.

1 fish and the project operating criteria established to protect resident fish. And as particularly
2 described with regard to the UCUT Tribes' recommended revision for Section 5.1B.1, the UCUT
3 Tribes recommended assigning certain implementation responsibilities to the Fish Passage Center
4 that overlap with the operational duties that the Colville Tribes would assign to the new Storage
5 Reservoir Center. The Council chose to propose an amendment to Section 5.1B.1 that assigned
6 these operational duties to the Fish Passage Center under the consensus direction of CBFWA (e.g.,
7 "coordinating storage reservoir and river operations and evaluating potential conflicts between
8 anadromous and resident fish to ensure that operating criteria for storage reservoirs are met when
9 considering system operational requests"), and then to assign the task of monitoring and analyzing
10 the implementation of the storage reservoir criteria also to the Fish Passage Center. Thus the
11 language proposed was a hybrid of and reflected both the UCUT Tribes' recommendation and this
12 one from the Colville Tribes.

13
14 **Findings:** The Council's final amendments generally followed the draft, with further
15 modifications to the language adding to the Fish Passage Center's duties in Section 5.1B, as
16 discussed in the findings for Section 5.1B. This means that the Council did not adopt the Colville
17 Tribes' recommendation as proposed, and did not call for the creation of a new Storage Reservoir
18 Center. The Council is of the opinion that it did adopt at least parts of this recommendation, in a
19 modified fashion, in that the Council revised Sections 5.1B.1 and 5.1B.2 to ensure that the Fish
20 Passage Center takes resident fish needs into consideration and that storage reservoir operating
21 criteria are met during the planning and implementation of anadromous fish flow operations and to
22 call on the FPC to monitor, collect and analyze data from the storage reservoir operations. The
23 findings for Section 5.1B.1 explain the Council's reasons for these decisions. The Council
24 concludes that the measures it did adopt should be a more cost-effective and efficient way to
25 achieve the same objective and thus will be more effective than the recommended language in
26 protecting, mitigating and enhancing fish and wildlife, 16 U.S.C. §839b(h)(6)(C), (7)(B), (7)(C).
27 The Council also finds that the Council's approach better complements the coordinated activities of
28 the region's fish managers than the recommended language, 16 U.S.C. §839b(h)(6)(A), (7)(B).

29
30
31
32 **Program Section(s):** 10.3E.? (10.8C?) (Minidoka Dam spillway)

33 **Source:** Idaho Department of Fish and Game

34 **Recommendation No.:** 95-2/0062

35
36 **Recommendation:** The Idaho Department of Fish and Game recommended a new
37 provision calling for a study to determine the impact of reconstructing the spillway at Minidoka Dam
38 to allow maintenance of a full pool during the winter in Lake Walcott. According to IDFG, fish
39 managers suspect that low retention time of water in the lake causes a quick out-migration of fish.
40 A full winter pool might increase water retention time in the reservoir and, thereby, enhance the
41 retention and production of resident fish.

1 **Draft:** Not included in the draft rule. The Council did include the recommendation in the
2 draft rule appendix “Other Amendment Recommendations On Which the Council Specifically
3 Invites Comment” and noted that funding would be shared by Bonneville, the Bureau of
4 Reclamation and IDFG.
5

6 **Comment:** The Bureau of Reclamation commented, with regard to this and other
7 recommendations that call for Reclamation to fund resident fish studies and projects, that
8 Reclamation funding for these purposes would have to come from Congressional appropriations and
9 that the earliest funding could be provided, assuming Congress agrees, would be 1998. Moreover,
10 Reclamation noted that Section 4(h)(8)(C) of the Act provides that when enhancement measures
11 deal with impacts caused by factors other than electric power facilities, the additional measures are
12 to be implemented in accordance with agreements among the appropriate parties providing for the
13 administration and funding of the measures. This and other proposed amendments ask Reclamation
14 to fund projects when it is not clear (1) what impact factors the project is mitigating; (2) for what
15 dam and reservoir; and (3) what agreements have been reached with the appropriate parties to
16 provide for administration and funding of the project. Reclamation law requires reimbursement of
17 project costs, including fish and wildlife mitigation costs, from project beneficiaries unless exempted
18 by Congress. Thus if Reclamation is to fund a project to offset fish habitat losses associated with
19 hydropower and non-hydropower impacts at a Reclamation project, then irrigators, ratepayers and
20 non-reimbursable funding from Congress (related to flood control) would all need to provide funds.
21 (143, 206)
22

23 Bonneville commented generally that it should not be identified as a funding source for
24 projects in non-FCRPS areas that mitigate for resident fish impacts of project operations. If a
25 recommendation for a project in such an area is for a resident fish substitution project, for which
26 Bonneville is in theory an appropriate funding source, the project needs to be linked to specific
27 FCRPS-affected anadromous fish stocks in quantifiable way. Among the examples listed by
28 Bonneville was resident fish mitigation assessments and projects above Hells Canyon Dam (which
29 includes this recommendation). Bonneville identified Idaho Power and the Bureau of Reclamation
30 as potentially more appropriate funding sources for the measure. Bonneville noted that the power
31 purpose share at Minidoka is less than one percent. If this project is undertaken, it should be
32 funded exclusively by Reclamation and charged to fish and wildlife, which is a specific project
33 purpose of Minidoka. If the program continues, over Bonneville’s objection, to attempt to identify
34 entities responsible for funding, the Council should adopt a principle that Bonneville will not be
35 identified as a direct funding entity “if the power allocation at a given project for which a measure
36 mitigates is less than 25 percent. This is necessary because of the difficulty Bonneville encounters
37 when attempting to recoup the non-power share of mitigation it directly funds.” (146, 229)
38

39 The Western Montana Electric Generating and Transmission Cooperative commented
40 generally that Bonneville’s responsibility to fund any project in the Snake River drainage above Hells
41 Canyon complex is extremely limited, as the Hells Canyon complex is owned and operated for the
42 benefit of Idaho Power Company, not Bonneville. Only those projects specifically related to federal
43 dams should be the responsibility of Bonneville ratepayers. In no event should Bonneville’s funding

1 role for these types of projects be expanded (221). The Public Utility District No. 1 of Okanogan
2 County stated that it agreed with the comments of WMG&T in this rulemaking. (222)

3
4 **Findings:** The Council did not adopt this recommendation. The recommendation was
5 unclear -- in the recommended text and in the explanation for the recommendation -- whether this
6 project should be considered a resident fish mitigation measure, as a resident fish substitution
7 measure, or both. Combined with the failure to specify whether this is a project intended in part to
8 compensate for the fact that salmon runs have been blocked from this area (a substitution measure)
9 or to mitigate the project impacts on resident fish (a mitigation measure), is the fact that Minidoka
10 Dam is operated almost primarily as an irrigation project and only very incidentally for hydroelectric
11 benefits, as noted by Bonneville. It is unclear to the Council in what way this provision addresses
12 the impact of hydroelectric facilities on fish in the Snake River Basin. This recommendation added
13 to this uncertainty by being unclear on precisely who was to fund the proposed study, whether
14 Bonneville alone or Bonneville and Reclamation, and why either or both should be involved in the
15 funding and whether or not others should share in the funding.

16
17 The Council is unwilling to adopt the recommendation without a more complete explanation
18 of funding and implementation entities and arrangements, of the nature of the project and its
19 relationship to the Council's program. This does not mean that a measure cannot be part of the
20 Council's program simply because it addresses the impacts of a project whose purposes are partly
21 or even largely not hydropower. As long as hydropower activities can be identified as at least partly
22 responsible for the impacts on resident fish that the measure is intended to address, the Council may
23 adopt the measure into the program, while recognizing the need for cost-sharing between power-
24 related and non-power related purposes. Still, the Council must receive enough information with the
25 project to allow it to know where the project fits into the program, what impacts are being mitigated
26 and how those impacts relate to hydropower developments, and who should fund and why. The
27 Council concludes that this recommendation does not yet contain the necessary information and
28 data in support for the Council to consider it is as a recommendation to protect, mitigate and
29 enhance fish affected by the development and operation of the Basin's hydropower facilities, 16
30 U.S.C. §839b(h)(1)(A), (2)(A), (3), (5) and (7)(A).

31
32
33
34 **Program Section(s): 10.3E.? (10.8C?) (Castle Creek/redband trout)**

35 Source: Idaho Department of Fish and Game

36 Recommendation No.: 95-2/0061

37
38 **Recommendation:** The Idaho Department of Fish and Game recommended adding a
39 provision calling for the Bureau of Reclamation, Bonneville and Idaho Power Company to share
40 equally in funding the design and construction of a reservoir on Castle Creek in the Snake River
41 basin to enhance the production of native redband trout.

1 **Draft:** Not included in the draft rule. The Council did include the recommendation in the
2 draft rule appendix “Other Amendment Recommendations On Which the Council Specifically
3 Invites Comment.”
4

5 **Comment:** The Bureau of Reclamation commented, with regard to this and other
6 recommendations that call for Reclamation to fund resident fish studies and projects, that
7 Reclamation funding for these purposes would have to come from Congressional appropriations and
8 that the earliest funding could be provided, assuming Congress agrees, would be 1998. Moreover,
9 Reclamation noted that Section 4(h)(8)(C) of the Act provides that when enhancement measures
10 deal with impacts caused by factors other than electric power facilities, the additional measures are
11 to be implemented in accordance with agreements among the appropriate parties providing for the
12 administration and funding of the measures. This and other proposed amendments ask Reclamation
13 to fund projects when it is not clear (1) what impact factors the project is mitigating; (2) for what
14 dam and reservoir; and (3) what agreements have been reached with the appropriate parties to
15 provide for administration and funding of the project. Reclamation law requires reimbursement of
16 project costs, including fish and wildlife mitigation costs, from project beneficiaries unless exempted
17 by Congress. Thus if Reclamation were to fund a Castle Creek Reservoir to offset fish habitat
18 losses associated with hydropower and non-hydropower impacts at Palisades Reservoir, then
19 irrigators, ratepayers and non-reimbursable funding from Congress (related to flood control) would
20 all need to provide funds. (143, 206)
21

22 Bonneville commented generally that it should not be identified as a funding source for
23 projects in non-FCRPS areas that mitigate for resident fish impacts of project operations. If a
24 recommendation is for a resident fish substitution project, for which Bonneville is in theory an
25 appropriate funding source, the project needs to be linked to specific FCRPS-affected anadromous
26 fish stocks in quantifiable way. Among the examples listed by Bonneville was this recommendation
27 for Castle Creek reservoir. Bonneville identified Idaho Power as a potentially more appropriate
28 funding source for the measure. (146)
29

30 Bonneville further commented that at the request of regional resource managers and the
31 Council, Bonneville has in the past funded enhancement measures above the Hells Canyon Complex
32 as off-site mitigation for impacts caused to anadromous fish by the FCRPS. Bonneville
33 incorporated by reference its position as stated in its comments on the Phase IV amendments:
34 losses of anadromous fish above Hells Canyon Dam, requiring resident fish substitution were not
35 caused by the FCRPS. Bonneville is already funding the Lower Snake River Compensation Plan,
36 the mitigation Congress specified for the construction of four Corps projects on the lower Snake
37 River. Additional mitigation for those projects is unnecessary at this time. However, when funding
38 is available and a resident fish substitution measure is appropriately ranked for implementation,
39 Bonneville will continue to consider funding such measures on a case-by-case basis. (229)
40

41 The Western Montana Electric Generating and Transmission Cooperative commented
42 generally that Bonneville’s responsibility to fund any project in the Snake River drainage above Hells
43 Canyon complex is extremely limited, as the Hells Canyon complex is owned and operated for the

1 benefit of Idaho Power Company, not Bonneville. Only those projects specifically related to federal
2 dams should be the responsibility of Bonneville ratepayers. In no event should Bonneville's funding
3 role for these types of projects be expanded (221). The Public Utility District No. 1 of Okanogan
4 County stated that it agreed with the comments of WMG&T in this rulemaking. (222)

5
6 Steven M. Bruce, Boise, Idaho, commented that while he supported efforts to protect
7 native redband trout, he questioned whether their decline could be attributed to hydropower and
8 suspected that the problems stem from overgrazing, drought, water withdrawals for irrigation, and
9 the introduction of non-native fish. (182)

10
11 **Findings:** The Council did not adopt this recommendation, for the reasons given in the
12 findings on the previous recommendation, which are incorporated here as well. The
13 recommendation did not include sufficient information about the relationship of this project to the
14 impact of hydroelectric power on fish in the Snake basin, whether this a mitigation measure or a
15 substitution measure, or both, and precisely who should fund and why and under what cost-sharing
16 arrangements (based on the relationship to the hydropower system). The Council does not agree
17 with Bonneville that the Lower Snake River Compensation Plan and the fact that Idaho Power
18 Company's Hells Canyon Complex is responsible for blocking salmon into the area absolve
19 Bonneville from any and all responsibility for funding projects above Hells Canyon Dam. There is
20 no need to resolve these issues here, however, as all the comments raise pertinent issues about the
21 link between this proposed project and hydropower impacts that need to be addressed first.

22
23
24
25 **Program Section(s):** 10.3E.? (10.8C?) (instream water rights above Hells Canyon
26 **Dam)**

27 Source: Idaho Department of Fish and Game

28 Recommendation No.: 95-2/0061

29
30 **Recommendation:** The Idaho Department of Fish and Game recommended that
31 Bonneville, the Bureau of Reclamation and Idaho Power Company establish a trust account for the
32 purchase of water rights, water storage, or property with associated water rights for the purposes of
33 providing water for instream uses for both fish and wildlife in the Snake River and its tributaries
34 upstream of Hells Canyon Dam.

35
36 **Draft:** Not included in the draft rule.

37
38 **Comment:** The Idaho Council office noted that Idaho law may not allow for the purchase
39 and transfer of water rights as intended by this recommendation.

40
41 The Bureau of Reclamation commented that to the extent Reclamation would be looked to
42 for funding for a water rights trust account for resident fish needs, Reclamation funding for this
43 purpose would have to come from Congressional appropriations and that the earliest funding could

1 be provided, assuming Congress agrees, would be 1998. Reclamation does not have general
2 authority to set up and fund trust accounts. (143, 206)

3
4 Bonneville commented generally that it should not be identified as a funding source for
5 projects in non-FCRPS areas that mitigate for resident fish impacts of project operations. If a
6 recommendation is for a resident fish substitution project, for which Bonneville is in theory an
7 appropriate funding source, the project needs to be linked to specific FCRPS-affected anadromous
8 fish stocks in quantifiable way. Among the examples listed by Bonneville was this recommendation
9 for a water rights acquisitions trust account. Bonneville identified Idaho Power and IDFG as
10 potentially more appropriate funding sources for the measure. (146)

11
12 Bonneville further commented that at the request of regional resource managers and the
13 Council, Bonneville has in the past funded enhancement measures above the Hells Canyon Complex
14 as off-site mitigation for impacts caused to anadromous fish by the FCRPS. Bonneville
15 incorporated by reference its position as stated in its comments on the Phase IV amendments:
16 losses of anadromous fish above Hells Canyon Dam, requiring resident fish substitution, were not
17 caused by the FCRPS. Bonneville is already funding the Lower Snake River Compensation Plan,
18 the mitigation Congress specified for the construction of four Corps projects on the lower Snake
19 River. Additional mitigation for those projects is unnecessary at this time. However, when funding
20 is available and a resident fish substitution measure is appropriately ranked for implementation,
21 Bonneville will continue to consider funding such measures on a case-by-case basis. (229)

22
23 The Western Montana Electric Generating and Transmission Cooperative commented
24 generally that Bonneville's responsibility to fund any project in the Snake River drainage above Hells
25 Canyon complex is extremely limited, as the Hells Canyon complex is owned and operated for the
26 benefit of Idaho Power Company, not Bonneville. Only those projects specifically related to federal
27 dams should be the responsibility of Bonneville ratepayers. In no event should Bonneville's funding
28 role for these types of projects be expanded (221). The Public Utility District No. 1 of Okanogan
29 County stated that it agreed with the comments of WMG&T in this rulemaking. (222)

30
31 **Findings:** The Council did not adopt this recommendation, for the reasons given in the
32 findings on the previous two recommendations, which are incorporated here as well. Also, the
33 recommendation did not make clear what agency or agencies was to control the trust account or the
34 purchased water rights, to decide on expenditures for water rights, and to determine to which
35 purposes to assign purchased water rights.

36
37
38
39 **Program Section(s):** 10.4A.4 (Snake River sturgeon)
40 **Source:** Idaho Department of Fish and Game
41 **Recommendation No.:** 95-2/0060
42

1 **Recommendation:** Section 10.4A.4 of the 1994 program called on the Nez Perce Tribe
2 to prepare an evaluation of means for rebuilding sturgeon populations in the Snake River between
3 Lower Granite and Hells Canyon dams. The Idaho Department of Fish and Game recommended
4 that it be added as an implementor, as the state agency charged with management in this reach.
5

6 **Draft:** Included in the draft rule.
7

8 **Comment:** The Oregon Department of Fish and Wildlife commented that ODFW should
9 also be added as an implementor, given that both states (Idaho and Oregon) have management
10 responsibility for sturgeon in the Snake River between Hells Canyon Dam and Lower Granite.
11 IDFG is currently stocking in Hells Canyon and Oxbow reservoirs; ODFW has made stock
12 assessments. ODFW commented more generally that existing Section 10.4A.2 should be revised
13 to clarify that all appropriate tribes and state agencies should be funded in the implementation of the
14 sturgeon restoration measures in Section 10.4A. ODFW explained that the direction to Bonneville
15 to fund sturgeon measures should not identify selected tribes as the sole implementors. Instead,
16 these measures should be implemented by the tribes and state agencies with management
17 responsibilities for sturgeon. Sturgeon research and restoration efforts in the Columbia River, for
18 example, are being implemented in a coordinated project including USFWS, ODFW, WDFW,
19 NMFS, and CRITFC, as well as significant activities by the Nez Perce and Yakama Tribes.
20 Failure to coordinate could result in a failure to achieve desired goals and excludes expertise
21 developed by agencies and staff involved in the coordinated project. (142, 234)
22

23 In a similar comment directed at another provision in Section 10.4A, the Washington
24 Department of Fish and Wildlife commented that WDFW should be included in Section
25 10.4A.5 as one of the co-operators, along with the Spokane Tribe and the Colville Tribes, in
26 the three-year base-line assessment of sturgeon in Lake Roosevelt from Grand Coulee Dam to
27 the international border. “This is consistent with our agreement with the Spokane Tribe.” (230)
28

29 The Confederated Salish and Kootenai Tribes questioned generally whether there are loss
30 statements for the projects in Section 10.4 and whether these are actually substitution and not
31 mitigation projects. (191)
32

33 The Montana Department of Fish, Wildlife and Parks recommended that all of Section 4,
34 concerning sturgeon mitigation, should be combined with proposed Sections 10.8B.7, 10.8B.8,
35 10.8B.40 and 10.8B.41 (resident fish substitution provisions for Kootenai River white sturgeon),
36 “so that all of the white sturgeon recovery activities are located in one place in the plan.” This will
37 allow any inconsistencies between these sections to be addressed as well. (202).
38

39 In what is a comment on the existing language, Idaho Fish and Game commented that to be
40 consistent with the principles in Section 10.2A on propagation, sturgeon studies on the Snake River
41 downstream of Hells Canyon should first focus on the need for a rebuilding effort. The possibility
42 exists that habitats are at carrying capacity. (227)
43

1 The Corps of Engineers also commented on the existing language -- that it presupposes
2 sturgeon populations between Lower Granite Dam and Hells Canyon Dam are depleted due to
3 hydroelectric development. "This should be verified before Bonneville funds enhancement efforts."
4 (224)
5

6 **Findings:** The Council adopted the recommendation in a modified fashion. In response to
7 the recommendation, to the comments of ODFW and others, and the Council's own review, all of
8 Section 10.4A has been revised to make the section consistent with the Council's policy not to
9 direct Bonneville to fund particular entities to carry out particular work, as explained in earlier
10 findings above. Thus rather than simply add IDFG (or ODFW and IDFG) to the list of the
11 implementors, this section has been altered to call for Bonneville to fund the task described in this
12 particular section in consultation with the Nez Perce Tribe, IDFG, ODFW and other appropriate
13 state agencies and tribes (if any). The Council revised the other measures in Section 10.4A in a
14 similar fashion, and deleted former Section 10.4A.2, calling for funding of selected entities. The
15 Council has concluded that this is the most cost-effective way to protect, mitigate and enhance fish
16 and wildlife resources and thus spread and balance program spending and the cost impact on the
17 power system. For this reason, the Council finds that the measure adopted is more effective than
18 the recommended language in protecting, mitigating and enhancing resident fish, 16 U.S.C.
19 §839b(h)(5), (7)(C), and with the addition of the other entities in the consultation, better
20 complements the activities of all the relevant fish agencies and tribes, 16 U.S.C. §839b(h)(6)(A),
21 (7)(B).
22

23 Most of the comments concerned the existing measure, not the recommended change. The
24 Council notes that the measure calls for an evaluation of ways to rebuild sturgeon populations
25 between Lower Granite Dam and Hells Canyon. Part of that evaluation will have to include
26 determining the limiting factors on the population, which will help determine the answer to a number
27 of questions raised in the comments: Is the sturgeon population limited by the amount of available
28 habitat? If so, is it because that habitat has been limited by hydropower development or operations,
29 and, if so, to what extent? Is there available unseeded habitat with other factors limiting the
30 population, and if so, to what extent is that loss situation a result of hydropower development or
31 operations? What mix of habitat restoration and enhancement activities, changes in hydropower
32 operations, artificial production, and/or other activities are needed to address the limiting factors and
33 begin rebuilding the populations? If artificial production activities appear to be needed, how can
34 they occur so as not to adversely affect wild and naturally spawning populations? As will be
35 discussed below, the fish managers have not reached a consensus yet about implementing
36 production to rebuild sturgeon populations in the Columbia and lower Snake mainstems. All of
37 these issues are relevant, but will be addressed in the evaluation called for in this measure, and in the
38 loss assessment process described in Section 10.1C.
39

40 In response to the comment from the Montana Department of Fish, Wildlife and Parks, all
41 of the existing and recommended sturgeon measures have been brought together in Section 10.4
42 including the Kootenai River sturgeon recovery strategy recommended by the Kootenai Tribe for
43 Section 10.8B.

1
2
3
4 **Program Section(s):** **New 10.4A.5 (sturgeon)**

5 Source: Nez Perce Tribe

6 Recommendation No.: 95-2/0041
7

8 **Recommendation:** The Nez Perce Tribe recommended an addition to Section 10.4A
9 calling on Bonneville to fund the Tribe to evaluate and, if feasible, implement a put-and-take fishery
10 for sturgeon in Hells Canyon and Oxbow reservoirs. The project would include production of test
11 fish at the existing Nez Perce tribal sturgeon rearing facility and possibly elsewhere by contract.
12

13 **Draft:** Included in the draft rule as a new Section 10.4A.5.
14

15 **Comment:** The Idaho Department of Fish and Game commented that no effort has been
16 made to coordinate the proposal for planting of sturgeon in Hells Canyon or Oxbow reservoirs with
17 IDFG. (227)
18

19 The Oregon Department of Fish and Wildlife commented that ODFW should also be added
20 as an implementor, given that both states (Idaho and Oregon) have management responsibility for
21 sturgeon in the Snake River between Hells Canyon Dam and Lower Granite. IDFG is currently
22 stocking in Hells Canyon and Oxbow reservoirs; ODFW has made stock assessments. (142, 234)
23

24 The U.S. Fish and Wildlife Service questioned the Nez Perce recommendation for a put-
25 and-take fishery for sturgeon since the fish have such slow growth, taking approximately five years
26 to produce a two-foot sturgeon and ten years for a three-foot fish. FWS also stated that it was
27 “unaware of an existing Nez Perce tribal sturgeon rearing facility.” (140, 204)
28

29 The Washington Department of Fish and Wildlife commented that before any
30 supplementation is implemented, a thorough stock assessment and evaluation of limiting factors
31 influencing production be conducted. Supplementation implemented without this knowledge could
32 reduce the productivity of wild populations. This is a general strategy consistent with all sturgeon
33 population assessments in the Columbia basin. (230)
34

35 Bonneville commented generally that it should not be identified as a funding source for
36 projects in non-FCRPS areas that mitigate for resident fish impacts of project operations. If a
37 recommendation is for a resident fish substitution project, for which Bonneville is in theory an
38 appropriate funding source, the project needs to be linked to specific FCRPS-affected anadromous
39 fish stocks in quantifiable way. Among the examples listed by Bonneville was this recommendation
40 from the Nez Perce for a put-and-take sturgeon fishery in Hells Canyon and Oxbow. Bonneville
41 identified Idaho Power as potentially a more appropriate funding source for the measure. (146)
42

1 Bonneville further commented that at the request of regional resource managers and the
2 Council, Bonneville has in the past funded enhancement measures above the Hells Canyon Complex
3 as off-site mitigation for impacts caused to anadromous fish by the FCRPS. Bonneville
4 incorporated by reference its position as stated in its comments on the Phase IV amendments:
5 losses of anadromous fish above Hells Canyon Dam, requiring resident fish substitution, were not
6 caused by the FCRPS. Bonneville is already funding the Lower Snake River Compensation Plan,
7 the mitigation Congress specified for the construction of four Corps projects on the lower Snake
8 River. Additional mitigation for those projects is unnecessary at this time. However, when funding
9 is available and a resident fish substitution measure is appropriately ranked for implementation,
10 Bonneville will continue to consider funding such measures on a case-by-case basis. (229)

11
12 The Corps of Engineers commented that considering the slow growth rate of white sturgeon
13 and the relative unproductivity of Hells Canyon and Oxbow reservoirs, the success of a put-and-
14 take consumptive fishery would be problematic, at best. (224)

15
16 The Confederated Salish and Kootenai Tribes questioned generally whether there are loss
17 statements for the projects in Section 10.4 and whether these are actually substitution and not
18 mitigation projects. (191)

19
20 The Montana Department of Fish, Wildlife and Parks recommended that all of Section 4,
21 concerning sturgeon mitigation, should be combined with proposed Sections 10.8B.7, 10.8B.8,
22 10.8B.40 and 10.8B.41 (resident fish substitution provisions for Kootenai River white sturgeon),
23 “so that all of the white sturgeon recovery activities are located in one place in the plan.” This will
24 allow any inconsistencies between these sections to be addressed as well. (202).

25
26 The Western Montana Electric Generating and Transmission Cooperative commented
27 generally that Bonneville’s responsibility to fund any project in the Snake River drainage above Hells
28 Canyon complex is extremely limited, as the Hells Canyon complex is owned and operated for the
29 benefit of Idaho Power Company, not Bonneville. Only those projects specifically related to federal
30 dams should be the responsibility of Bonneville ratepayers. In no event should Bonneville’s funding
31 role for these types of projects be expanded (221). The Public Utility District No. 1 of
32 Okanogan County stated that it agreed with the comments of WMG&T in this rulemaking. (222)

33
34 **Findings:** The Council modified and adopted this recommendation. One modification has
35 already been discussed above, in the findings on the preceding recommendation. This is the change
36 directing Bonneville to fund the task in consultation and coordination with the Nez Perce Tribe, the
37 Idaho Department of Fish and Game, the Oregon Department of Fish and Wildlife and other
38 affected entities.

39
40 On a more substantive point, because of concerns raised by other fish managers (especially
41 the U.S. Fish and Wildlife Service and the Washington Department of Fish and Wildlife) and others,
42 the Council modified the recommendation to call for an evaluation of the production and release of
43 sturgeon for the put and take fishery, rather than for immediate implementation, with

1 recommendations to be submitted to the Council for approval and implementation based on the
2 results of the evaluation. The evaluation is to address the variety of issues raised by the commentors
3 and noted in the findings on the previous recommendation, including three in particular: First, is it
4 possible to produce a successful sturgeon fishery, given what is known and not known about
5 sturgeon production and the precise environment into which these fish will be addressed? Second,
6 can the production and release of these fish occur without significantly reducing the productivity of
7 wild sturgeon populations? With regard to these two questions, the Council is not assuming that
8 sturgeon production for this fishery is a bad idea, only that further evaluation and explanation is
9 necessary before the Council is ready to commit to the project.

10
11 The third particular question to address is whether this project address losses caused by the
12 development and operation of the hydropower system, and, if so, are other entities also
13 responsible? The Council does not agree with Bonneville that Bonneville has no responsibility for
14 funding any or all resident fish projects above Hells Canyon Dam. The Nez Perce Tribe partially
15 addressed this issue in the explanation submitted with the recommendation. The Tribe stated
16 generally that federal hydroelectric development in the lower Columbia and Snake basins had
17 created impoundments and otherwise interfered with sturgeon habitat in such a way as to contribute
18 to the severely depressed sturgeon population in the basin. However, the issue of ratepayer
19 responsibility has been appropriately raised with regard to this measure (and every measure in the
20 area above Hells Canyon Dam), and the Council concludes that the issue requires a more complete
21 analysis and response, specific to this measure, describing the link between the mitigation called for
22 and the impact on these fish of the development and operations of the federal hydropower system.
23 This issue may be analyzed as part of the evaluation called for in this measure, in the loss assessment
24 process called for in Section 10.1C, or as part of both evaluations. The end result may be that the
25 recommended project will address at least in part the unmitigated impacts of federal hydropower
26 development and operations on sturgeon, and so Bonneville would have a funding responsibility.
27 The evaluation could also show that Idaho Power bears some or even a large share or even all of
28 the responsibility for the impacts on these particular populations. Idaho Power's share of the
29 responsibility for funding this project would have to be addressed as part of the FERC re-licensing
30 process.

31
32 On this record, the Council concludes that the recommendation as modified is more
33 effective than the original recommendation in protecting, mitigating and enhancing fish and wildlife,
34 §839b(h)(5), (7)(C), better complements all the fish managers with an interest in sturgeon
35 production in the lower Snake River, 16 U.S.C. §839b(h)(6)(A), (7)(B), and is more consistent
36 with the Act's requirement that the Council ensure that Bonneville's ratepayers pay only for
37 measures that protect, mitigate, and enhance wildlife affected by the development and operations of
38 the federal hydroelectric facilities, 16 U.S.C. §839b(h)(1)(A), (5), (8)(B).

39
40 In response to the comment from the Montana Department of Fish, Wildlife and Parks, all
41 of the existing and recommended sturgeon measures have been brought together in Section 10.4
42 including the Kootenai River sturgeon recovery strategy recommended by the Kootenai Tribe for
43 Section 10.8B.

1
2
3
4 **Program Section(s):** **New 10.4A.7, 10.4A.8, 10.4A.9, 10.4A.10 (sturgeon)**

5 Source: Columbia River Inter-Tribal Fish Commission

6 Recommendation No.: 95-2/0089
7

8 **Recommendation:** The Columbia River Inter-Tribal Fish Commission recommended
9 adding four related measures for sturgeon to Section 10.4A: Bonneville is to fund tribal
10 development of facilities and a program to supplement white sturgeon populations in the impounded
11 sections of the Columbia and Snake rivers. Bonneville is also to fund tribal development and
12 operation of a white sturgeon research facility to research effects of contaminants on sturgeon and
13 reproduction and genetics of white sturgeon. Bonneville is to fund the states and tribes to conduct
14 population research on the mid-Columbia and lower Snake river reservoirs. Finally, the Corps of
15 Engineers is to fund state and tribal research regarding the feasibility of additional sturgeon passage
16 opportunities at The Dalles Dam by restoring existing fish lock facilities.
17

18 **Draft:** Included in the draft rule as new Sections 10.4A.7 through 10.4A.10, with two
19 modifications. First, the Council modified the recommendation to state that Bonneville and, in the
20 one instance, the Corps are to fund these tasks in consultation with appropriate tribes and state
21 agencies, without specifying who is to be funded to perform the work. Second, the
22 recommendation called for white sturgeon population research in the mid-Columbia and lower
23 Snake river reservoirs. Because comments and recommendations from the UCUT Tribes and
24 others have called for white sturgeon population research in Lake Roosevelt, the Council added
25 Lake Roosevelt to the list of areas for population research, to combine and coordinate the sturgeon
26 population research effort.
27

28 **Comment:** The U.S. Fish and Wildlife Service generally considers supplementation an
29 unproved technique fraught with disease, biological and genetic risks, to be used only in an
30 experimental or limited fashion and not as a full-scale production program. The best use of
31 supplementation would be to develop fisheries in areas with little potential for interaction with native
32 fish. USFWS also questioned this particular recommendation for the development of production
33 facilities and a sturgeon supplementation program before limiting factors are identified and research
34 into best ways to improve the population has been conducted. "Perhaps the populations in these
35 impounded sections of the Columbia and Snake rivers are maintaining at or close to carrying
36 capacity for the existing habitat? Without data on habitat and populations to be supplemented,
37 supplementation could be more detrimental than beneficial." And until the factors limiting numbers
38 are corrected (such as degraded habitat or altered flow patterns) the benefits of supplementation are
39 also questionable. (140, 204)
40

41 The Oregon Department of Fish and Wildlife also expressed concerns about the CRITFC
42 recommendation for funding of tribal efforts to research and develop facilities and programs to
43 supplement white sturgeon in the Columbia and lower Snake. ODFW suggested modifying the

1 recommendation to provide funding for a joint effort involving the tribes and states of Oregon and
2 Washington, based on the current plans developed by these groups working together as the
3 Sturgeon Management Task Force. These plans call for enhancement by transplantation rather than
4 artificial propagation as first option, so development of a propagation program at this time is
5 inconsistent with the management agreement and is not the most timely and cost effective direction
6 to take the program. Also research on the effects of contaminants on reproduction and genetics of
7 sturgeon in the mid-Columbia and lower Snake is already included in the sturgeon assessment and
8 enhancement program funded by Bonneville since 1986 and involving Oregon, Washington and
9 CRITFC, among others. (142)

10
11 Reiterating and expanding these comments in a subsequent set of written comments,
12 ODFW recommended replacing the supplementation language proposed for Section 10.4A.7
13 with "In consultation with the appropriate tribes and agencies, fund the development and
14 maintenance of a program to enhance white sturgeon production in impounded portions of the
15 Columbia and Snake Rivers". This would allow for several options for enhancement, including
16 supplementation based on transplants. Artificial propagation is not the first choice for
17 supplementation, although ODFW did recommend operation of an experimental facility to adapt
18 propagation techniques for sturgeon in case other alternatives fail. ODFW then recommended
19 replacing the research facility language proposed for Section 10.4A.8 with "In consultation with
20 the appropriate tribes and agencies, continue to fund evaluations of restoration measures,
21 including research on contaminants, reproduction, and genetics of white sturgeon." ODFW
22 supported the draft language in Sections 10.4A.9 and 10.4A.10. ODFW stated that its
23 suggested changes for sturgeon downstream from the Snake River are consistent with
24 agreements reached by the agencies and tribes in the Sturgeon Management Task Force, which
25 oversees sturgeon management agreements in Zone 6, while several of the measures proposed
26 by the tribes directly contradict the recommendations being developed jointly with Oregon and
27 Washington for presentation to the Council. In a related comment, ODFW suggested that
28 Section 10.4A.3 be deleted. "This section directs the Umatilla Tribe to prepare an evaluation of
29 means of rebuilding [sturgeon populations] between Bonneville Dam and the mouth of the
30 Snake River. A risk assessment with recommendations is already being developed by a joint
31 agency and tribal work group, including Umatilla Tribe representatives." (234)

32
33 The Washington Department of Fish and Wildlife supports the proposed sturgeon
34 supplementation "only in the context of development of culture techniques using the Hanford K
35 ponds. There is currently no agreement to implement supplementation of existing wild populations."
36 (230)

37
38 The Idaho Department of Fish and Game commented that prior to mandating funds for
39 construction and operation of facilities to enhance white sturgeon there should first be a
40 demonstrated need and evaluation of the impacts of releasing hatchery sturgeon on self-reproducing
41 wild populations. IDFG also noted that there needs to be consultation with IDFG and other state
42 fish management agencies concerning these and similar measures proposed for the Columbia basin.
43 (227)

1
2 Bonneville commented generally that it should not be identified as a funding source for
3 projects in non-FCRPS areas that mitigate for resident fish impacts of project operations. If a
4 recommendation is for a resident fish substitution project, for which Bonneville is in theory an
5 appropriate funding source, the project needs to be linked to specific FCRPS-affected anadromous
6 fish stocks in a quantifiable way. Among the examples listed by Bonneville was part of this
7 recommendation -- concerning contaminant research on sturgeon in certain areas. Bonneville
8 identified EPA and state water quality agencies as potentially more appropriate alternate funding
9 sources for the measure. (146)
10

11 The Corps of Engineers noted that this amendment calls on the Corps to fund research into
12 the development of sturgeon passage facilities at The Dalles Dam by restoring existing fish lock
13 facilities. This assumes that there is a problem with sturgeon passage at the dam and that restoring
14 the fish lock is the solution, two assumptions that need to be evaluated. The Corps suggested that
15 the first step would be to identify if a problem exists (i.e., whether The Dalles Dam restricts sturgeon
16 passage) and then to develop methods to increase sturgeon passage, without restriction to the fish
17 lock. (224)
18

19 The Confederated Salish and Kootenai Tribes questioned generally whether there are loss
20 statements for the projects in Section 10.4 and whether these are actually substitution and not
21 mitigation projects. (191)
22

23 The Montana Department of Fish, Wildlife and Parks recommended that all of Section 4,
24 concerning sturgeon mitigation, should be combined with proposed Sections 10.8B.7, 10.8B.8,
25 10.8B.40 and 10.8B.41 (resident fish substitution provisions for Kootenai River white sturgeon),
26 "so that all of the white sturgeon recovery activities are located in one place in the plan." This will
27 allow any inconsistencies between these sections to be addressed as well. (202).
28

29 **Findings:** This sturgeon recommendation has been adopted with the same types of
30 modifications as described in connection with the preceding recommendation. That is, the Council
31 modified the funding and implementation language to call for Bonneville (and the Corps) to fund the
32 identified tasks in consultation with the appropriate tribes and agencies, without specifying the
33 implementors. And, the Council revised the measures calling for the development of sturgeon
34 production facilities to call for an evaluation of their development. The state and tribal fish managers
35 with direct management authority along the impounded stretches of the Columbia and Snake rivers
36 disagree as to whether sturgeon supplementation should be implemented or further evaluated. The
37 recommendations and plans of the Sturgeon Management Task Force, in which the agencies and
38 tribes all participated, appear at present to be the best guide as to the needed sturgeon activities in
39 this area. CRITFC's recommendation to begin supplementation appears to be inconsistent with the
40 Task Force's recommendation. The Council concluded that it was best to call for further evaluation
41 of the issue of sturgeon supplementation, to allow the fish managers an opportunity to consult and
42 resolve this apparent inconsistency, returning to the Council with new recommendations when

1 appropriate. The Commission is also free, of course, to return to the Council with a more
2 comprehensive explanation as to why sturgeon supplementation should be implemented now.

3
4 On this record, the Council believes that the recommendation as modified is more effective
5 than the original recommendation in protecting, mitigating and enhancing fish and wildlife,
6 §839b(h)(5), (7)(C), better complements all the fish managers with an interest in sturgeon
7 production in the lower Snake River, 16 U.S.C. §839b(h)(6)(A), (7)(B), and is more consistent
8 with the Act's requirement that the Council ensure that Bonneville's ratepayers pay only for
9 measures that protect, mitigate, and enhance wildlife affected by the development and operations of
10 the federal hydroelectric facilities, 16 U.S.C. §839b(h)(1)(A), (5), (8)(B).

11
12 In response to the comments from Bonneville, the Confederated Salish and Kootenai
13 Tribes, and others, it is true, on the one hand, that there are no loss assessments yet related to the
14 sturgeon in this area, and the recommendation did not provide a detailed explanation of the link
15 between these measures and the impact of the federal hydropower projects on these sturgeon
16 populations. On the other hand, prior rulemakings have at least recognized the strong plausibility of
17 a link between the development of the federal projects in the lower Columbia and Snake rivers and
18 the depressed sturgeon populations in these areas -- problems caused by impoundments, slow
19 moving water, poor passage, alterations in food sources and in spawning and rearing habitat, etc.
20 This linkage can be further analyzed in the evaluations and research called for here and in the loss
21 assessments called for in Section 10.1C.

22
23 In response to the comment from the Oregon Department of Fish and Wildlife suggesting
24 that the Council delete Section 10.4A.3: This measure now calls on Bonneville in consultation with
25 the Umatilla Tribes and other state agencies and tribes to fund an evaluation, including a biological
26 risk assessment, of sturgeon between Bonneville Dam and the mouth of the Snake River. The
27 revised language should make it consistent with ODFW's description of the joint agency and tribal
28 work group developing the sturgeon evaluation program in this part of the Columbia. Deleting or
29 significantly altering this measure would be beyond the scope of the rulemaking, as it was not
30 recommended or part of the draft rule.

31
32 In response to the comment from the Corps of Engineers, in order to determine whether
33 sturgeon passage will be significantly increased by restoring the fish lock facilities, the research
34 project design logically should include some evaluation as to whether a sturgeon passage problem
35 exists. If not, restoring the fish lock facilities could not be predicted to improve passage. The same
36 can be said for an analysis of alternative routes for passage through the project.

37
38 In response to the comment from the Montana Department of Fish, Wildlife and Parks, all
39 of the existing and recommended sturgeon measures have been brought together in Section 10.4
40 including the Kootenai River sturgeon recovery strategy recommended by the Kootenai Tribe for
41 Section 10.8B.

1
2
3
4 **Program Section(s):** **New 10.5A.5 (bull trout genetic sampling/Lake Pend Oreille)**

5 Source: Idaho Department of Fish and Game

6 Recommendation No.: 95-2/0058, /0059
7

8 **Recommendation:** The Idaho Department of Fish and Game recommended adding a
9 provision to Section 10.5A calling for Bonneville to fund IDFG to (a) initiate a comprehensive
10 genetic sampling program and (b) investigate the life history, habitat needs, and threats to bull trout
11 in the Lake Pend Oreille system. IDFG saw these studies as complementary to existing program
12 measures for bull trout life history studies and genetic sampling programs elsewhere in the basin.
13

14 **Draft:** Included in the draft rule as a new Section 10.5A.5, modified to state that
15 Bonneville is to fund these tasks in consultation with IDFG, without specifying who is to be funded
16 to perform the work.
17

18 **Findings:** Adopted as modified in the draft rule. It is the Council's general policy (and
19 Bonneville's) not to direct Bonneville to fund particular entities to carry out particular work, as
20 explained above. The Council has concluded that this is the most cost-effective way to protect,
21 mitigate and enhance fish and wildlife resources and thus spread and balance program spending and
22 the cost impact to the power system. For this reason, the Council finds that the measure adopted is
23 more effective than the recommended language in protecting, mitigating and enhancing resident fish,
24 16 U.S.C. §839b(h)(5), (7)(C).
25
26
27

28 **Program Section(s):** **New 10.5A.6 (bull trout study)**

29 Source: Washington Department of Fish and Wildlife

30 Recommendation No.: 95-2/0053

31 Source: Yakama Indian Nation

32 Recommendation No.: 95-2/0032
33

34 **Recommendation:** The Washington Department of Fish and Wildlife recommended a
35 new bull trout provision in which Bonneville is to fund a study by WDFW of the "life histories and
36 limiting factors" for bull trout populations in the Bonneville tributaries: Wind, Little White Salmon,
37 White Salmon and Klickitat rivers, with five specified aspects of the study. The Yakama Indian
38 Nation recommended a modification of WDFW's recommendation, by calling for the study to be
39 conducted by the Washington Department of Fish and Wildlife and the Yakama Indian Nation.
40

41 **Draft:** The Council included in the draft rule (as a new Section 10.5A.6) the version
42 recommended by the Yakama Nation, modified to state that Bonneville is to fund these tasks in

1 consultation with the Washington Department of Fish and Wildlife and the Yakama Nation, without
2 specifying who is to be funded to perform the work.

3
4 **Comment:** The Washington Department of Fish and Wildlife confirmed its support for the
5 proposed Bonneville funding of a study of bull trout life history and limiting factors in Bonneville Pool
6 tributaries, including the description of the proposal as a joint project with the Yakama Indian
7 Nation. (230)

8
9 Oregon Trout supported this bull trout recommendation, and supports full funding and
10 implementation of all the bull trout studies and surveys in Section 10.5A. Oregon Trout would also
11 like to see the same sort of consideration -- recognition of population declines and measures for
12 studies and surveys -- given to native redband trout. (209)

13
14 Bonneville commented generally that it should not be identified as a funding source for
15 projects in non-FCRPS areas that mitigate for resident fish impacts of project operations. If a
16 recommendation is for a resident fish substitution project, for which Bonneville is in theory an
17 appropriate funding source, the project needs to be linked to specific FCRPS-affected anadromous
18 fish stocks in quantifiable way. Among the examples listed by Bonneville is this recommendation for
19 bull trout evaluations in the Wind River, Little White Salmon, White Salmon and Klickitat River
20 basins. (146)

21
22 **Findings:** Adopted as modified in the draft rule. As explained above, it is the Council's
23 general policy not to direct Bonneville to fund particular entities to carry out particular work. The
24 Council has concluded that this is the most cost-effective way to protect, mitigate and enhance fish
25 and wildlife resources and thus spread and balance program spending and the cost impact to the
26 power system. For this reason, the Council finds that the measure adopted is more effective than
27 the recommended language in protecting, mitigating and enhancing resident fish, 16 U.S.C.
28 §839b(h)(5), (7)(C).

29
30 In response to Bonneville's comments, WDFW explained, in the recommendation material,
31 that this measure addresses the fact that "the mainstem Columbia River hydropower projects
32 changed the life history patterns of bull trout by changing their habitat [and] available prey base and
33 blocking movement of adults and juveniles," and that the proposed study is part of on-site mitigation
34 for this impact. The Council is not persuaded by Bonneville's general comment that the agencies
35 and tribes are incorrect, although it may be that other entities, such as the land management
36 agencies, also share some responsibility for impacts on bull trout in this area and should share in the
37 funding. If Bonneville wishes to pursue this point with regard to this project, the Council suggests
38 that Bonneville raise it with the Yakama Nation and WDFW as the study project is designed and
39 readied for implementation and possibly include in the study design an assessment of the
40 hydroelectric project impacts.

1 **Program Section(s):** **New 10.5B (native salmonids in the Snake basin above Hells**
2 **Canyon Dam)**

3 Source: Burns Paiute Tribe

4 Recommendation No.: 95-2/0034

5 Source: Shoshone-Bannock Tribes

6 Recommendation No.: 95-2/0039

7 Source: Shoshone-Paiute Tribes

8 Recommendation No.: 95-2/0049

9 Source: Idaho Department of Fish and Game

10 Recommendation No.: 95-2/0063, /0064

11
12 **Recommendation:** All of these parties recommended the same basic measure, which
13 some identified as a new Section 10.5B, calling for Bonneville, other federal agencies, the states,
14 hydroelectric project owners and other appropriate entities to fund IDFG, ODFW and the Tribes in
15 (1) an investigation of the life history, habitat needs, and threats to persistence of native salmonids
16 upstream of Hells Canyon Dam in the Snake River and its tributaries and (2) a comprehensive
17 genetic sampling program for native salmonids in this area. The only difference among these
18 recommendations is that the Idaho Department of Fish and Game did not include the Oregon
19 groups (the Oregon Department of Fish and Wildlife and the Burns Paiute Tribe) as participants in
20 the study. Native salmonid species discussed in the recommendations include bull trout, redband
21 trout, Snake River fine spot cutthroat trout, westslope cutthroat trout and Yellowstone cutthroat
22 trout.

23
24 **Draft:** Included in the draft rule as a new Section 10.5B, modified to state that the task is
25 to be funded in consultation with the Idaho Department of Fish and Game, the Oregon Department
26 of Fish and Wildlife, the Shoshone-Bannock Tribes, the Shoshone-Paiute Tribes and the Burns
27 Paiute Tribe, without specifying who is to be funded to perform the work. In what appears to be a
28 publication error, the draft rule calls only for Bonneville to fund this work, while the recommendation
29 and the Council's approval of the draft rule call for Bonneville to be one of a number of funding
30 entities.

31
32 **Comment:** The Burns Paiute Tribe confirmed its support of this measure, as "an area of
33 critical need for research to determine ways to improve the habitat and persistence of native
34 salmonids." (176)

35
36 The Oregon Department of Fish and Wildlife commented that it "would welcome the
37 information provided by this amendment but has not raised this issue as needing resolution through
38 the Fish and Wildlife Program." (234)

39
40 The Colville Confederated Tribes supported the concept of Bonneville responsibility for
41 funding resident fish projects above Hells Canyon Dam "to the extent that they are attributable to
42 federal hydropower projects." The language in the proposed amendment appears, however, to
43 relieve other hydroelectric/irrigation operators of any funding responsibilities above the dam.

1 Section 10.5B should include language that identifies all the responsible funding agencies above
2 Hells Canyon. (226)

3
4 Bonneville commented generally that it should not be identified as a funding source for
5 projects in non-FCRPS areas that mitigate for resident fish impacts of project operations. If a
6 recommendation is for a resident fish substitution project, for which Bonneville is in theory an
7 appropriate funding source, the project needs to be linked to specific FCRPS-affected anadromous
8 fish stocks in quantifiable way. Among the examples listed by Bonneville was this recommendation
9 for native salmonid research above Hells Canyon. Bonneville identified Idaho Power and the
10 Bureau of Reclamation as potentially more appropriate funding sources for the measure. (146)

11
12 Bonneville further commented that at the request of regional resource managers and the
13 Council, Bonneville has in the past funded enhancement measures above the Hells Canyon Complex
14 as off-site mitigation for impacts caused to anadromous fish by the FCRPS. Bonneville
15 incorporated by reference its position as stated in its comments on the Phase IV amendments:
16 losses of anadromous fish above Hells Canyon Dam, requiring resident fish substitution, were not
17 caused by the FCRPS. Bonneville is already funding the Lower Snake River Compensation Plan,
18 the mitigation Congress specified for the construction of four Corps projects on the lower Snake
19 River. Additional mitigation for those projects is unnecessary at this time. However, when funding
20 is available and a resident fish substitution measure is appropriately ranked for implementation,
21 Bonneville will continue to consider funding such measures on a case-by-case basis. (229)

22
23 The Western Montana Electric Generating and Transmission Cooperative commented
24 generally that Bonneville's responsibility to fund any project in the Snake River drainage above Hells
25 Canyon complex is extremely limited, as the Hells Canyon complex is owned and operated for the
26 benefit of Idaho Power Company, not Bonneville. Only those projects specifically related to federal
27 dams should be the responsibility of Bonneville ratepayers. In no event should Bonneville's funding
28 role for these types of projects role be expanded (221). The Public Utility District No. 1 of
29 Okanogan County stated that it agreed with the comments of WMG&T in this rulemaking. (222)

30
31 **Findings:** Adopted as modified in the draft rule, with the draft rule version modified to
32 make it consistent with the recommendation in calling for Bonneville to share the funding
33 responsibilities with other federal agencies, the states, hydroelectric project owners (e.g., Idaho
34 Power), and other appropriate entities. The recommending parties are aware, as is the Council, that
35 native resident salmonids in the upper Snake have been adversely affected by non-federal
36 hydroelectric projects, by federal and non-federal irrigation projects (or multi-purpose projects
37 primarily for irrigation) and by other factors. It is for that reason the measure calls for the sharing of
38 funding responsibilities.

39
40 However, the recommending parties also explain that the federal projects in the upper
41 Snake store water and generate power, some of which is marketed by Bonneville, making these
42 projects multipurpose hydropower facilities, which Congress addressed in the Northwest Power
43 Act. Thus Bonneville ratepayers have a responsibility under the Power Act to mitigate the negative

1 impacts on resident fish from the effects of the power features of these projects. The Council does
2 not agree with Bonneville and the other commentators that the fact that Idaho Power's projects block
3 anadromous fish into the area automatically means the federal power system does not have any
4 responsibility for hydropower impacts on native resident salmonids above Hells Canyon. The
5 Council is also not persuaded that the Lower Snake Compensation Plan absolves Bonneville of any
6 further responsibility for Snake River mitigation. For one thing, the Council disagrees that the
7 LSRCP was intended by Congress to stand as full mitigation for the impact of the lower Snake
8 projects, overriding the subsequent Power Act's directive to Bonneville's ratepayers to fund
9 mitigation for the unmitigated losses caused by the federal hydropower projects. This issue is
10 addressed in more detail in findings on Section 11.3, in the wildlife portion of the program. More
11 important for this specific measure, the LSRCP addresses the impact of the four lower Snake
12 projects on fish and wildlife, while this measure is intended to address the impacts of the federal
13 projects upstream of Hells Canyon.

14

15 The relevant parties will need to work out an appropriate fund sharing arrangement as they
16 design and ready for implementation the study measure called for here, while the results of the study
17 should be of particular assistance in further sorting out responsibility for impacts and mitigation.

18

19

20

21 **Program Section(s):** 10.6B.1 (salmonids and other fish in Lake Pend Oreille)

22 Source: Kalispel Tribe

23 Recommendation No.: 95-2/0013

24

25 **Recommendation:** In brief comments on the anadromous fish draft amendments, the
26 Kalispel Tribe recommends revising Section 10.6B.1 to replace the reference to "appropriate
27 tribes" with "Kalispel Tribe of Indians."

28

29 **Draft:** Included in the draft rule.

30

31 **Findings:** Adopted.

32

33

34

35 **Program Section(s):** 10.6E (kokanee in Lake Pend Oreille)

36 Source: Kalispel Tribe of Indians

37 Recommendation No.: 95-2/0077

38

39 **Recommendation:** In the December 1994 anadromous fish rulemaking process, the
40 Council took two actions with regard to water levels at Lake Pend Oreille in Idaho (behind Albeni
41 Falls Dam). First, the Council added Section 5.4D.7 to the program, calling on the Corps of
42 Engineers to maintain the lake at a level no lower than elevation 2056 feet to provide additional
43 water for Columbia salmon flows. The Council also revised Section 10.6E, calling for the Idaho

1 Department of Fish and Game to conduct a five-year study to determine the effect of changes in
2 water level management (especially drawdowns below elevation 2056) on the kokanee population
3 in the lake.
4

5 The Kalispel Tribe recommended that the Council retreat from these two actions. The
6 Tribe recommended deleting Section 5.4D.7 and substantially modifying Section 10.6E. The
7 recommended replacement language for Section 10.6E states that the evidence is conflicting as to
8 whether the kokanee population in the lake is even in decline and, if it is, what is the cause and thus
9 calls for further assessment as to whether the kokanee population is in decline, and if so, what the
10 cause is and whether holding the reservoir at a higher level will help. IDFG is to fund and develop a
11 "bioenergetics model" using existing information to analyze the population fluctuation and investigate
12 the role of various factors in that fluctuation, including lake level manipulation, primary and
13 secondary productivity, Mysis shrimp and predators. IDFG is to use this model and information to
14 develop and submit recommendations to the Council, for public and scientific peer review,
15 addressing the Lake Pend Oreille kokanee population. No lake level manipulation will take place
16 until the study and model are completed.
17

18 **Draft:** The Council included the recommended revision to Section 10.6E in the draft rule.
19 The Council did not include the recommended deletion of Section 5.4D.7 in the draft rule, although
20 it did place this recommendation in the draft rule appendix "Other Amendment Recommendations
21 On Which the Council Specifically Invites Comment."
22

23 **Comment:** The cover letter accompanying the Idaho Department of Fish and Game's set
24 of resident fish recommendations stated IDFG's continued support for the five-year kokanee study
25 at Lake Pend Oreille as outlined in the Council's amendments to the program during the
26 anadromous fish rulemaking process. IDFG's cover letter noted that a scientifically valid study to
27 answer key questions related to water level management and kokanee spawning and recruitment
28 has been funded by the Department and developed by the University of Idaho. (57)
29

30 The Kalispel Tribe commented that it was working with Idaho Fish and Game to develop
31 language and a scope of work to address both the Tribe's and IDFG's concerns for kokanee at
32 Lake Pend Oreille, but that until the Tribe and IDFG jointly provide this language, the Tribe
33 recommended that the Council adopt the language in the draft rule based on the Tribe's
34 recommendation. (194)
35

36 The UCUT Tribes commented to confirm their support for the Kalispel Tribe's proposed
37 amendment, as reflecting the best available scientific knowledge. The UCUT Tribes noted the on-
38 going discussions with IDFG. The Tribes also noted that if the Council accepts a compromise
39 agreement or rejects the Kalispel Tribe's recommendation in favor of the original or some other
40 language, the Council must include the Kalispel Tribe, Coeur d'Alene Tribe and Kootenai Tribe in
41 the IDFG investigation of the lake levels and kokanee, as all of these tribes have aboriginal ties to
42 the lake as a usual and accustomed fishing, hunting and gathering place, ties they have maintained to
43 the present day. (196)

1
2 The Idaho Department of Fish and Game and the Kokanee Recovery Task Force, a
3 coalition of groups composed of the North Idaho Chapter of Trout Unlimited, the Lake Pend
4 Oreille Idaho Club, the Lake Pend Oreille Marina Owners, the Greater Sandpoint Chamber of
5 Commerce, the Bayview Chamber of Commerce, and the Charter Boat Operators, and led by
6 Hobart Jenkins, Mayor of the City of Bayview, Idaho, opposed the Kalispel Tribe's
7 recommendation and submitted a substitute amendment. The Task Force maintained that
8 substantial information indicates that the kokanee population in the lake is declining and that federal
9 operation of the Albeni Falls Dam that results in lower lake levels in the winter has contributed
10 significantly to that decline, submitting information on population numbers and studies. The Task
11 Force also submitted information indicating that Bonneville overestimated, in 1993, the power and
12 money costs of operating the dam to maintain higher lake levels in winter.
13

14 The alternative language proposed by IDFG and the Task Force calls for a five-year
15 kokanee study that would include a three-year experiment in which the Corps of Engineers would
16 hold the lake level at elevations 2056, 2055 and then 2054 over the next three successive winters.
17 During this time period, IDFG would evaluate the effect of the lake level changes on kokanee
18 production and other matters, and would also implement hatchery improvements, maintain current
19 levels of kokanee production and current levels of harvest. The Task Force listed a set of five
20 qualitative biological objectives to be evaluated in the study, and estimated the cost impacts as
21 "significantly less than prior estimates." (184, 185, 187)
22

23 In public hearing testimony, Idaho Fish and Game commented that from the evidence
24 presented in consultations, "there should no longer be any question that the kokanee population has
25 significantly declined" and that it is at risk of collapsing. Legitimate debate exists as to the causes of
26 decline, and multiple factors have influenced the decline, but overwhelming evidence, direct and
27 indirect, identifies the loss of critical lake shore spawning gravels as the primary reason for decline.
28 The study adopted by the Council in December constituted an adaptive management study to take a
29 comprehensive look at all factors, including raising the lake levels monitoring the response in the
30 kokanee population. IDFG chose elevation 2056 as the quickest way to document the impact of
31 lake level management, but the Department can agree to evaluate a lower winter level. "A 2054
32 level has provided documented positive responses in the kokanee population, and our lake shore
33 gravel distribution surveys show gravel is available." IDFG's priority is not to model the population
34 to determine what the problem is; not enough information exists to construct a meaningful model.
35 IDFG will continue to work with the Kalispel Tribe and the states of Washington and Montana to
36 incorporate all concerns into a comprehensive study design. The language recommended by the
37 Kalispel Tribe was developed without the input of IDFG, and will not move the kokanee population
38 toward recovery but instead place it at greater risk of collapse, and should not be adopted. (174,
39 227)
40

41 In public hearing testimony and consultations, individuals and groups from the Lake Pend
42 Oreille area, including Hobart Jenkins representing the Bayview Chamber of Commerce and others
43 and Bill Schaut of the Lake Pend Oreille Idaho Club, objected to the Kalispel Tribe's

1 recommended retreat from the Council's December 1994 decision concerning Lake Pend Oreille,
2 presenting technical comments similar to those submitted by IDFG and summarized above. They
3 stated that the evidence is undeniable that kokanee populations are declining; that there is sufficient
4 evidence for concern that lake level fluctuations are a major cause of that decline; that they remained
5 concerned about the effect of lake fluctuations on spawning kokanee and wanted to see the original
6 program language restored or something similar to achieve higher winter lake levels, at least as a test
7 or study. Mr. Jenkins and others commented further that they were not absolutely set on
8 maintaining the lake at level 2056 and would support some other level if maintained higher than
9 2051; and that they were not adverse to broader study proposals, but only if accompanied by
10 testing of higher lake levels. They stated that they cannot wait 3 or 4 years for action, as the
11 kokanee population will collapse by then. (157, 174)
12

13 The Montana Department of Fish, Wildlife and Parks commented that "biological modeling
14 at the energy transfer level is problematic in a system as large and diverse as Pend Oreille." The
15 Department recommended that any model developed be based on existing empirical data; that the
16 model begin as "a simple component model with definite goals and objectives"; and that the model
17 incorporate "field sampling to make components quantitative." The bioenergetics model described
18 in the proposed amendments "could lead to development of an expensive model that has little
19 reliability for on-the-ground management decisions." (202).
20

21 Seattle City Light commented in support of the Kalispel Tribe's recommended revisions,
22 questioning the wisdom of the Council's December decision to hold the lake level five feet higher
23 than normal in winter and noting that the status of kokanee in the lake needs further study before the
24 Council's management decision can be supported. Seattle City Light provided information as to
25 how the Council's measure will result in an energy and monetary cost to Seattle City Light. (99,
26 141)
27

28 The Washington Public Utility Districts Association also supported the Kalispel Tribe's
29 proposed revision, noting that scientists currently disagree over what is happening to the kokanee
30 population and that altering the lake level could cause significant loss in hydroelectric production.
31 Under existing program language, member PUDs would have borne 20 percent of cost of raising
32 the lake level and nearly 60 percent of costs by non-federal projects. Before a lake level study can
33 proceed, we must be certain about the fishery conditions that would justify the study and the likely
34 consequences of the study; the evaluation in the proposed amendment should answer these
35 questions. (212)
36

37 The Pend Oreille County Public Utility District, Newport, Washington, also supported the
38 proposed amendment to this section, believing that the proposed plan to investigate and model
39 biological interactions in the lake and to defer manipulation of lake levels until this modeling is done
40 makes very good sense. Scientists disagree over what is happening to the kokanee population in
41 Lake Pend Oreille, while altering the lake level could cause significant loss in hydroelectric
42 production. Several tools are available to manage the kokanee fishery successfully without altering
43 lake level--including hatchery operations, predator control, and harvest regulations. (216)

1
2 The Ponderay Newsprint Company similarly supported the proposed amendment,
3 commenting that its review of past statistical information showed no correlation between kokanee
4 population and lake levels and that the highest correlation was with the Mysis shrimp situation. This
5 information indicates no current basis for implementing a change in lake level management, given the
6 energy and dollar costs of that change. (174).
7

8 A host of individuals and groups from Sandpoint, Sagle and other communities in Idaho and
9 Washington near Lake Pend Oreille commented generally in objection to any operating regime at
10 the lake that would significantly draw down the reservoir in summer for salmon flow augmentation,
11 because of the adverse impacts on resident fish, recreation, and other amenities. Commentors
12 included the Lake Pend Oreille Idaho Club; Mayor Ronald G. Chaney of Sandpoint, Idaho; Jim
13 Jarrold, President, Evergreen Ford Nissan, Lou Boyles, R.C. Roland, Garry Shea, Fred B. Palmer,
14 and John L. Campbell, all of Sandpoint, Idaho; John B. Albi, Jon Tinker, Laura Stalsberg, Tina L.
15 Sikora, Louis Sikora and Joan Sikora, Pete and Peggy Dieterich, Toby and Laura McNeal, and
16 Ellsworth D. Brown, President, Bonner County Shoreline Property Owners and Taxpayers
17 Protective Assn., Inc., all of Sagle, Idaho; Gary and Barbara Carpenter and Hoyt and Edie
18 Schuyler, all of Hope, Idaho; James B. Fenton, James B. Fenton Co., Inc., Dover, Idaho; William
19 J. Wrigglesworth, Sedwick James of Washington, Inc., Jeff C. Penna, Plese Realty, Tracy R. Parr,
20 and Doug and Laraine Nortell, all of Spokane, Washington; and Tom and Dianne Brown, Honolulu,
21 Hawaii. (91-96, 102-03, 105, 107-12, 114-18, 120-21, 124, 131
22

23 A number of individual commentors were generally opposed to any proposal that would
24 adversely affect native anadromous fish by reducing the flows needed for juvenile salmon migration.
25 Commentors included Bhagwati Poddar and Saradell Poddar, Astoria, Oregon; Everett Peterson,
26 Roseburg, Oregon; Richard Hardin, Grants Pass, Oregon; Sue Knight, Portland, Oregon; Scott
27 Bischke, Corvallis, Oregon; and Steven M. Bruce, Boise, Idaho. (162, 165, 173, 182, 201, 211)
28

29 **Findings:** The Council did not adopt the recommendation, but it did revise its program
30 language due to the concerns raised in the recommendation and comments. Based on the
31 information submitted to the Council (in this and previous rulemakings), and the consideration the
32 Council affords to the management authority of the Idaho Department of Fish and Game as the
33 primary fish manager of Lake Pend Oreille, the Council continues to accept the judgment of IDFG
34 that the best available scientific knowledge indicates that the lake's kokanee population may be in
35 decline, that the impact of lower lake levels on spawning is a plausible cause of the decline, that it
36 makes sense to pursue a test in which the lake levels are held up to investigate the impact on
37 spawning and on the overall population, and that pursuing first the type of evaluation and model
38 development recommended by the Kalispel Tribe may delay important protection for the kokanee
39 in an expensive model-development process that may not prove reliable as a basis for management
40 decisions (as noted by, for example, the Montana Department of Fish, Wildlife and Parks, which
41 has extensive experience in reservoir evaluation in the development of the IRCs for Hungry Horse
42 and Libby). On the other hand, based on the Kalispel Tribe's recommendation and comments in
43 this and the 1994 rulemaking, the Council also recognizes the scientific uncertainty underlying these

1 judgments, that a decline in kokanee might be attributable to a combination of other factors, and that
2 holding the lake levels higher in winter has a significant impact on hydroelectric production in the
3 river below the lake.
4

5 These factors suggest that IDFG should pursue the minimum lake level test possible and, as
6 already called for by the Council, to pursue a broader evaluation of a number of factors that might
7 be causing a kokanee decline. The Council has attempted to address all these concerns in its
8 revised Section 10.6E.
9

10 With regard to the minimum lake level test, the Council noted that representatives for IDFG
11 testified that in their view a winter elevation of 2054 feet has already provided documented positive
12 responses in the kokanee population, and that their surveys have shown that spawning gravels are
13 available at that level. Thus while the Department recommends holding the lake at 2056 feet (as
14 called for in the 1994 program) as the quickest way to document the impact, it could agree to a
15 lower level. The members of the Kokanee Recovery Task Force agreed. This suggested to the
16 Council that a lake level test at 2054 feet could be the minimum test necessary to allow for the
17 necessary evaluation, while the Council's power and cost analyses indicated important savings at the
18 lower test level. IDFG and the Task Force then submitted the revised proposal as a comment that
19 called for a sliding lake level test, at 2056, 2055 and 2054 foot over the next three winters.
20

21 The Council understands that the affected entities and interested organizations have held
22 various discussions and are continuing these discussions. They had not come to any agreements by
23 the close of the comment period for this rulemaking.
24

25 On this record, the Council altered its program language to call for the test to begin this year
26 with a winter at lake level of 2054 feet. Section 10.6E.4 adds that implementation of this lake level
27 this year is conditioned on IDFG having in place first the necessary monitoring and evaluation
28 program in order to evaluate the impact of the test on kokanee spawning. The Council will not
29 require that the entire kokanee study be implemented before this year's test may begin, as the
30 Council recognizes that this is not possible in terms of time and accepts IDFG's judgment that the
31 status of the kokanee require action as soon as possible. This is, however, one of the reasons the
32 Council concluded that beginning the test at the lower 2054 feet level is prudent.
33

34 The Council calls for the test to increase to 2055 feet and 2056 feet in successive winters.
35 The Council considers this a provisional decision, as the Council has also called for IDFG and other
36 appropriate tribes and state agencies to work together to review and refine the study design. This
37 review should include the issue of the appropriate lake levels and how best to evaluate the other
38 factors that might be affecting the kokanee. The Council then calls on these entities to submit the
39 revised study and whatever data is available from implementation of the lake level test to the
40 Independent Scientific Group for an independent scientific evaluation of the study design and
41 implementation, and then to the Council for review and approval.
42

1 As noted above, the Council has called for IDFG to work with the appropriate tribes and
2 other appropriate state agencies in developing the study design. It is not the Council's place to
3 decide whether or not the Kalispel Tribe, Kootenai Tribe and/or Coeur d'Alene Tribe should be
4 considered official co-managers of the fish populations in the lake with IDFG. But the Council does
5 recognize the historical connection and legitimate interest of these tribes in the lake and its fish
6 populations, and of the impact of lake management on downstream resources, and thus it is
7 appropriate to call for their inclusion in the study design and evaluation.
8

9 In response to the comments of Seattle City Light, the Washington Public Utility Districts
10 Association, the Pend Oreille Public Utility District, and the Ponderay Newsprint Company, the
11 Council recognizes the power costs of the lake level test, and has modeled and analyzed those
12 costs. As noted above, one of the reasons the Council has been attracted to the lower lake level
13 test, if biologically reasonable, is that it will reduce these costs in an important way. On the other
14 hand, the Council disagrees with comments that the available scientific data simply cannot be said to
15 show a possible correlation between lake level management, kokanee spawning and kokanee
16 population decline. The information indicates instead that a correlation between these factors is one
17 plausible way to interpret the data, and on this basis the Council defers at this point to the biological
18 judgment of IDFG, as the agency with the primary management authority over the fish populations in
19 the lake, while calling for further evaluation and a refined study design based on the input of fish
20 managers with varying viewpoints. To the extent that winter operations of the Albeni Falls Dam for
21 hydropower are having deleterious effects on the kokanee population, then the power costs are in
22 the acceptable range for the necessary changes in operations to mitigate for these impacts.
23

24 Finally, in response to the comments from those concerned about the impact of the
25 recommendation on anadromous fish flows, a change from the existing program (a winter lake level
26 of 2056 feet) to the recommendation of the Kalispel Tribe (no winter lake level management)
27 possibly could have had an important impact on anadromous fish flows. But the change in lake level
28 management from three winters at 2056 feet to three winters at 2054, 2055 and 2056 feet (or even
29 three winters at 2054 feet) does not appear, in the Council's analysis, to produce significant
30 differences in downstream anadromous fish flows, at least not differences that undermine the ability
31 of the system to deliver the necessary flows for salmon migration.
32

33 For all these reasons, the Council concludes that what it has adopted is more effective than
34 the recommendation in protecting, mitigating and enhancing fish and wildlife, §839b(h)(5), (7)(C),
35 and better complements the activities and viewpoints of the relevant fish managers and is supported
36 by the best available scientific knowledge, 16 U.S.C. §839b(h)(6)(A) and (B), (7)(B).
37
38
39

40 **Program Section(s): 10.7A.1, 10.7A.2 (vegetation planting at Lake Roosevelt)**

41 Source: Washington Department of Fish and Wildlife

42 Recommendation No.: 95-2/0056
43

1 **Recommendation:** The Washington Department of Fish and Wildlife recommended a
2 new Section 10.7A.2 that calls on WDFW to assess the feasibility of establishing vegetation
3 plantings at key locations within the drawdown zone of Lake Roosevelt to enhance the production
4 of several resident game fish species. The study is to combine test plantings with an evaluation of
5 the effects of operations on plant species and survival. Study results to be submitted to Council by
6 December 31, 1998.

7
8 **Draft:** Included in the draft rule, modified to state that Bonneville is to fund the
9 recommended task in consultation with WDFW, without specifying who is to be funded to perform
10 the work.

11
12 **Comment:** The UCUT Tribes supported the WDFW vegetation planting study proposal,
13 but noted that the Spokane Tribe and the Colville Tribes need to be added as consultants,
14 “especially since some of the key locations may be within the Indian zones.” WDFW could be the
15 lead agency, and the work should be coordinated through the Lake Roosevelt Fisheries
16 Management Team (composed of Spokane, Colville and WDFW voting representatives, with the
17 Lake Roosevelt Net Pen Program and Bonneville in an advisory role), in the same way as the team
18 coordinates the hatchery production by the Spokane Tribe and WDFW, the Spokane Tribe’s Lake
19 Roosevelt monitoring program, the Colville Tribes’ rainbow trout enhancement program in the
20 tributaries, and the net pen program. (196)

21
22 The National Park Service, Coulee Dam National Recreational Area, also supported the
23 recommendation for the vegetation planting study at Lake Roosevelt, but did object to the fact that
24 the recommendation “does not list as cooperators the agencies and tribes directly responsible for
25 managing the drawdown zone of Lake Roosevelt.” All involved parties must be included “to
26 properly coordinate and complement” the proposed study with “any other ongoing and planned”
27 management activities at the lake. Thus the Park Service requested that this recommendation
28 “include coordination of the study through all signatories of the Lake Roosevelt Cooperative
29 Management Agreement, including the National Park Service, the Bureau of Reclamation, the
30 Bureau of Indian Affairs, the Colville Confederated Tribes and the Spokane Tribe of Indians prior
31 to any further consideration by the Council.” (228)

32
33 Bonneville commented that it has already funded several studies like this in the basin.
34 Implementation throughout the basin will commence when Bonneville sees more promising results; it
35 is unwise to initiate more studies until the methodology is proven effective in other reservoirs. (229)

36
37 The Confederated Salish and Kootenai Tribes noted that the Montana Department of Fish,
38 Wildlife and Parks has extensive experience in shoreline vegetation that could be tapped to assist
39 others in the implementation of the vegetation planting measures in Section 10.7. (191)

40
41 **Findings:** The Council adopted a modified version of the recommendation. Rather than
42 have one measure for vegetation planting tests at a number of reservoirs in Section 10.7A.1, and an
43 entirely separate measure for Lake Roosevelt in Section 10.7A.2, the Council decided to combine

1 and coordinate the measures . Thus Lake Roosevelt was added to the list of reservoirs in Section
2 10.7A.1 appropriate for test vegetation plantings. This section continues to state that based on the
3 results of the test plantings, Bonneville and other entities are to fund a feasibility study to determine
4 which projects would benefit from revegetation improvements. Section 10.7A.2 then specifies the
5 elements of the feasibility study that the fish managers are to undertake, and calls on them to report
6 the results of the analysis and recommendations for further action to the Council by December 31,
7 1998.

8
9 Because of the way in which the Council modified the recommendation, the measures do
10 not designate the particular agencies or tribes that are to undertake the projects described. Instead
11 the Council will leave it to the fish managers to work out with the funding entities in the
12 implementation process, as is the Council's usual policy. Thus the Council did not state explicitly, as
13 suggested in the comments, that at Lake Roosevelt WDFW was to work with other agencies and
14 tribes in the vegetation planting test. However, the Council expects that WDFW, the Spokane
15 Tribe, and the Colville Confederated Tribes will consult with the funding entities and each other in
16 deciding how to carry out the project at Lake Roosevelt. And, the Council also expects that the
17 fish managers and Bonneville will communicate and coordinate this study with the other entities with
18 an interest in operations at Lake Roosevelt, such as the National Park Service.

19
20 The Council added to the recommendation that once the feasibility study is complete, and if
21 the fish managers submit recommendations for action based on the results of the study to the
22 Council, Bonneville is to fund those recommendations upon Council approval. This means the
23 Council need not amend the program simply to review the recommendations from the study and
24 approve their implementation.

25
26 For these reasons, the Council finds that the measure adopted is more effective than the
27 recommended language in protecting, mitigating and enhancing resident fish, 16 U.S.C.
28 §839b(h)(5), (7)(C), and better complements the activities of all the region's fish managers, 16
29 U.S.C. §839b(h)(6)(A), (7)(B).

30
31 In response to the comment from Bonneville, the way in which the Council modified the
32 recommendation indicates that the Council expects the fish managers and Bonneville to coordinate
33 and evaluate a vegetation planting test at Lake Roosevelt with the other studies of this type that have
34 been completed or are on-going. The Council believes that the recommended study at Lake
35 Roosevelt might be particularly useful in developing and refining the vegetation planting
36 methodology, given that the vegetation study can be coordinated with the variety of biota
37 evaluations called for under the expanded Lake Roosevelt Monitoring Program (see Section
38 10.8B.21), presenting a particularly complete analysis of the interaction of shoreline vegetation,
39 other factors and fish production. And based on the comments of the Confederated Salish and
40 Kootenai Tribes, the Council encourages the entities that become involved in these efforts to contact
41 the Montana Department of Fish, Wildlife and Parks for guidance and assistance in designing and
42 implementing the test vegetation plantings and the feasibility study.

43

1
2
3 **Program Section(s):** **10.8A, 10.8B (resident fish substitution policy/projects above**
4 **Chief Joseph-Grand Coulee dams)**

5 Source: Upper Columbia United Tribes (Spokane Tribe, Coeur d'Alene Tribe,
6 Kalispel Tribe, Kootenai Tribe)

7 Recommendation No.: 95-2/0070
8

9 **Recommendation:** Section 10.8 contains the Council's resident fish substitution program,
10 that is, the enhancement of resident fish populations to mitigate for the loss of anadromous fish.
11 Section 10.8A of the 1994 program stated the Council's "Resident Fish Substitution Policy," and
12 Section 10.8B contained a set of resident fish substitution projects in the area above Chief
13 Joseph/Grand Coulee dams. The UCUT Tribes submitted a comprehensive rewritten version of
14 Sections 10.8A and 10.8B that contained: (1) a revised policy statement; (2) a set of discrete,
15 quantitative biological objectives for the program in various portions of the area above Chief
16 Joseph/Grand Coulee, as well as a list of strategies to meet these objectives; and (3) a set of
17 projects corresponding to the strategies. The projects include: (a) existing provisions that the Tribes
18 retained without change (although the sections have been reorganized and renumbered; (b) existing
19 provisions that the Tribes revised or extended; and (c) new recommended projects. Note that each
20 of the new projects and most of the revised projects in the UCUT Tribes' comprehensive rewrite
21 were also submitted as separate and distinct recommendations by the UCUT Tribes, by its member
22 tribes individually, and by other entities. These separate recommendations are cross-referenced in
23 the summary below. The proposed revisions to Sections 10.8A and 10.8B are summarized here:
24

25 10.8A No change to the existing language in Section 10.8A, concerning resident fish
26 substitution policies. The UCUT Tribes added language that represented an expanded version of
27 policy language they recommended for Section 10.1 (Recommendation No. 95-2/0076), especially
28 outlining why the highest priority for resident fish funding and implementation should be in the
29 blocked areas above Chief Joseph and Grand Coulee. Added to the reasons given in the
30 recommended language for Section 10.1 are that the fishery managers, including the Colville
31 Confederated Tribes, Coeur d'Alene Tribe, Kalispel Tribe, Kootenai Tribe of Idaho, Spokane
32 Tribe and Washington Department of Fish and Wildlife, have collectively identified detailed
33 biological objectives and associated strategies to achieve the objectives for this region, as set forth
34 in the revised Section 10.8.B. [Incorporates the Spokane Tribe's separate recommendation, No.
35 95-2/0024, calling on Bonneville to fund resident fish substitution activities above Chief Joseph "as a
36 high priority."]
37

38 10.8B A new introduction to section on resident fish substitution projects above Chief
39 Joseph/Grand Coulee Dams.
40

41 10.8B.1 Accounting for blocked area losses caused by Chief Joseph/Grand Coulee Dams.
42 This sections states that the biological objectives submitted with this recommendation "account for

- 1 approximately 10 to 13 percent of the total losses of anadromous fish harvested by the tribes"
2 above the now-blocked area.
3
- 4 10.8B.2 The listing of the fishery managers -- Colville Confederated Tribes, Coeur d'Alene
5 Tribe, Kalispel Tribe, Kootenai Tribe of Idaho, Spokane Tribe and Washington Department of Fish
6 and Wildlife -- that collectively identified biological objectives and strategies for this region.
7
- 8 10.8B.3 Detailed, quantified Lake Roosevelt biological objectives, including: annual targets
9 of harvestable sized adult kokanee, trout, and walleye; escapement goals; reservoir elevation targets
10 and monthly mean water retention times (the same as recommended by the Spokane Tribe for
11 Section 10.3E.3, discussed above), and timelines to achieve population targets for individual
12 species.
13
- 14 10.8B.4 A set of strategies to achieve the Lake Roosevelt biological objectives, including:
15 project operations, hatchery operations; marking hatchery fish; baseline investigations; net pen use;
16 and monitoring program.
17
- 18 10.8B.5 Biological objectives for the Coeur d'Alene Reservation tributaries, including
19 escapement and harvest targets for adult cutthroat trout in various creeks, detailed habitat objectives
20 for each creek; and rainbow trout production targets.
21
- 22 10.8B.6 Strategies to achieve Coeur d'Alene Tribal biological objectives, including habitat
23 enhancements; critical watershed areas purchases; low capital hatchery and trout ponds; and
24 monitoring program.
25
- 26 10.8B.7 Biological objectives for Kootenai River white sturgeon and kokanee salmon. For
27 white sturgeon, objectives include preserving the gene pool by specified numbers of successful
28 recruitments; harvest and escapement targets cannot yet be set. For kokanee, restore historical
29 kokanee fishery; specific harvest and escapement objectives.
30
- 31 10.8B.8 Strategies to achieve biological objectives for Kootenai River white sturgeon and
32 kokanee salmon. For white sturgeon, higher flows in the river below Libby to re-establish natural
33 spawning and a captive culture program. For kokanee, restore spawning habitat in tributary creeks
34 and explore incubation, supplementation and other strategies to enhance survival.
35
- 36 10.8B.9 Biological objectives for largemouth bass, cutthroat trout, and bull trout in Box
37 Canyon Reservoir and tributary streams, including harvestable biomass targets and percentage
38 increases in overwinter survival for largemouth bass; densities and interim adult fish numbers for
39 cutthroat and bull trout.
40
- 41 10.8B.10 Strategies to achieve biological objectives for largemouth bass, cutthroat trout and
42 bull trout in Box Canyon Reservoir and tributary streams, including specified hatchery operations,
43 water control structures to create and protect bass nursery sloughs; artificial cover structures to

1 increase fry winter cover; habitat and production inventories and improvements; and monitoring
2 programs.

3
4 10.8B.11 Biological objectives for lakes and streams on the Colville Indian Reservation,
5 including trout production, catch-per-unit-effort and fish growth targets.

6
7 10.8B.12 Strategies to achieve biological objectives for lakes and streams on the Colville
8 Indian Reservation, including hatchery operations, development of on-reservation brood sources,
9 fish marking programs, improvements to lake and stream spawning and rearing habitat on
10 reservation; and monitoring and evaluation programs.

11
12 10.8B.13 Biological objectives for Moses Lake and Ford Hatchery, including hatchery
13 production targets.

14
15 10.8B.14 Strategies to achieve biological objectives at Moses Lake and Ford Hatchery,
16 including baseline investigations and water supply improvements at Ford Hatchery.

17
18 10.8B.15 This section states that the rest of the revised Section 10.8B is a set of specific
19 projects and time frames intended to implement the strategies and achieve the biological objectives.
20

21 10.8B.16 In a revised version of existing Section 10.8B.1, Bonneville is to fund as a "high
22 priority" the projects identified in Sections 10.8B.17 to 10.8B.45.

23
24 **Spokane Tribe**

25
26 10.8B.17 Kokanee hatcheries. Same language as existing Section 10.8B.5.

27
28 10.8B.18 Add new production well capable of producing 2.5-3.0 cfs of additional flow for
29 the Spokane Tribal Hatchery by January 1996. [Incorporating Spokane Tribe Recommendation
30 No. 95-2/0073.]

31
32 10.8B.19 In collaboration with the Washington Department of Wildlife and Colville Tribes,
33 construct and operate 20 net pens for rearing kokanee salmon (25,000 fish/pen) to post-smolt size
34 in Lake Roosevelt. [Incorporating Spokane Tribe Recommendation No. 95-2/0072.]

35
36 10.8B.20 Operate Grand Coulee Dam and Lake Roosevelt to provide specified water
37 retention times and reservoir elevations. [Incorporating Spokane Tribe Recommendation No. 95-
38 2/0074, for Section 10.3E.]

39
40 10.8B.21 In collaboration with the Colville Tribe and the Washington Department of Fish and
41 Wildlife, monitor and evaluate the Lake Roosevelt biota to assess the effectiveness of Sections
42 10.8B.17 to 10.8B.20 above, and, Sections 10.8B.25 and 10.8B.27 below, with a detailed

1 description of the tasks to be completed, including the development of a biological rule curve at
2 Lake Roosevelt. [Incorporating Spokane Tribe Recommendation Nos. 95-2/0024, 95-2/0048.]
3

4 **Colville Tribes**

5

6 10.8B.22 Trout hatchery. Same language as existing Section 10.8B.2, with the addition of
7 monitoring and evaluation language. [Incorporating Colville Tribes Recommendation No. 95-
8 2/0067.]
9

10 10.8B.23 Natural kokanee production. Same language as existing Section 10.8B.3, with the
11 addition of (a) a reference to collaboration with the Spokane Tribe and the Washington Department
12 of Fish and Wildlife, and (b) a specified 1995-2000 time frame.
13

14 10.8B.24 Identify and study the feasibility of alternatives for preventing resident fish from
15 being swept downstream out of Lake Roosevelt Reservoir. A slightly revised version of existing
16 Section 10.8B.18, with a new implementor (Colville Tribes rather than Fishery Managers).
17

18 10.8B.25 In collaboration with the Spokane Tribe and the Washington Department of Fish
19 and Wildlife, operate and maintain pilot projects for improving habitat and passage into and out of
20 Lake Roosevelt tributary streams for rainbow trout. A slightly revised version of existing Section
21 10.8B.6, with a new implementor to make this a Colville Tribes project and not a Spokane Tribe
22 project. [The switch in implementors was also the subject of Colville Confederated Tribes
23 Recommendation No. 95-2/0068.]
24

25 10.8B.26 In collaboration with the Spokane Tribe and the Washington Department of Fish
26 and Wildlife, monitor and evaluate the effectiveness of the pilot projects in measure 10.8B.25.
27

28 **Lake Roosevelt Forum**

29

30 10.8B.27 Implement the rainbow trout net pen rearing program. Same as existing Section
31 10.8B.17.
32

33 **Kalispel Tribe**

34

35 10.8B.28 Bass hatchery. Same language as existing Section 10.8B.8, with addition of
36 reference to marking all hatchery production and a 1995-1996 time frame for design and
37 construction of the bass production hatchery.
38

39 10.8B.29 Design, construct, operate and maintain for two years, a yellow perch aquaculture
40 facility on the Kalispel Indian Reservation, beginning the design in 1995 and completing construction
41 by 1998. [Incorporating Kalispel Tribe Recommendation No. 95-2/0080.]
42

1 10.8B.30 In collaboration with the Washington Department of Fish and Wildlife, conduct
2 studies to determine the status of existing bull trout and cutthroat trout populations in the Pend
3 Oreille River and its tributaries between 1995-1997. [Incorporating Kalispel Tribe
4 Recommendation No. 95-2/0007.]
5

6 10.8B.31 In collaboration with the Washington Department of Fish and Wildlife, conduct
7 advanced design, construct, operate and maintain habitat improvement projects to enhance bull
8 trout and cutthroat trout in all tributaries in the Box Canyon Reach of the Pend Oreille River -- a
9 revised version of existing Section 10.8B.9.
10

11 10.8B.32 Removing exotic brook trout. Same language as existing Section 10.8B.10, with
12 the addition of a 1996 completion date.
13

14 10.8B.33 Water control structures for bass nursery slough. Same language as existing Section
15 10.8B.11, with the deletion of the reference to collaboration with WDFW and a few editorial
16 changes for clarification.
17

18 10.8B.34 Bass fry winter cover. Same language as existing Section 10.8B.12, with the
19 addition of a time frame for commencing and completing the measure.
20

21 10.8B.35 Habitat improvement monitoring. Same language as existing Section 10.8B.13,
22 except for specifying the creeks, fish, and commencement dates.
23

24 **Coeur d'Alene Tribe** 25

26 10.8B.36 Habitat enhancement in tributary streams and more. This is a detailed revision to
27 existing Section 10.8B.4, incorporating Coeur d'Alene Tribe Recommendation Nos. 95-2/0020;
28 95-2/0022.
29

30 10.8B.37 Conduct a NEPA analysis, a habitat analysis and a land value appraisal of a 2100
31 acre wetland/riparian and associated upland parcel in the Lake Creek drainage and Windy Bay area
32 of Lake Coeur d'Alene in FY 96. [Incorporating Coeur d'Alene Tribe Recommendation No. 95-
33 2/0021.]
34

35 **Kootenai Tribe of Idaho** 36

37 10.8B.38 Sturgeon hatchery. Same language as existing Section 10.8B.14.
38

39 10.8B.39 Kootenai River survey. Same language as existing Section 10.8B.15.
40

41 10.8B.40 Kootenai River white sturgeon recovery strategy. [Proposed Sections 10.8B.7
42 (portion concerning biological objectives for sturgeon), 10.8B.8 (sturgeon strategies), 10.8B.40

1 (recovery strategy projects) and 10.8B.41 (same) encompass the Kootenai Tribe's separately
2 submitted Kootenai River white sturgeon recovery strategy, Recommendation No. 95-2/0071.]

3
4 10.8B.41 Bonneville funding requirements for Kootenai River white sturgeon recovery
5 strategy. [See the note above.]

6
7 10.8B.42 Base-line assessment. Same language as existing Section 10.8B.16, with deletion
8 "of Idaho and Idaho Fish and Game", and the addition of a 1996 funding date.

9
10 **Washington Department of Fish and Wildlife**

11
12 10.8B.43 Fish population enhancement in Moses Lake. Revised version of existing Section
13 10.8B.19.

14
15 10.8B.44 Improve water supply at Ford Hatchery to rear 35,000 pounds of resident trout
16 and kokanee for stocking into Banks Lake and other northeastern Washington Lakes.
17 [Incorporating Washington Department of Fish and Wildlife Recommendation No. 95-2/0055.]

18
19 10.8B.45 Bonneville to fund a cooperative project among the confederated Colville Tribes,
20 Kalispel Tribe, Spokane Tribe, and the Washington Department of Fish and wildlife to assess stock
21 status of resident fish species and associated habitats in the areas above Chief Joseph and Grand
22 Coulee Dams. [Spokane Tribe, Kalispel Tribe, Confederated Colville Tribes and Washington
23 Department of Fish and Wildlife Recommendation No. 95-2/0085.]

24
25 **Draft:** Included in the draft rule, with two additions reflecting two additional amendments
26 to Section 10.8B recommended by fish managers that did not make it into the UCUT Tribes'
27 Section 10.8B rewrite. First, the Colville Confederated Tribes submitted a recommendation (No.
28 95-2/0069) for a revision to existing Section 10.8B.3, a measure calling for an evaluation of natural
29 production of kokanee in certain areas above Chief Joseph Dam. The Colville Tribes'
30 recommendation specified what types of activities would be included in the evaluation. The UCUT
31 Tribes' comprehensive rewrite of Section 10.8B incorporated existing Section 10.8B.3 as
32 proposed Section 10.8B.23, with the additional language noted above. However, the UCUT
33 Tribes' rewrite did not include the additional language from the Colville Tribes' recommendation.
34 The Council added it in the draft rule version. Second, the Washington Department of Fish and
35 Wildlife submitted a recommendation calling for improvements to the Department's Phalon Lake
36 wild rainbow trout trapping facility (No. 95-2/0054). The UCUT Tribes' Section 10.8B rewrite
37 did not incorporate this recommendation, and so the Council added it as a proposed Section
38 10.8B.45 (renumbering the last section in the UCUT Tribes' rewrite as Section 10.8B.46).

39
40 **Comment:**

41
42 Policies, priorities, biological objectives. The UCUT Tribes -- collectively and individually -
43 - strongly confirmed their support for the resident fish substitution policy and priorities and the entire

1 package of biological objectives, strategies, timelines and specific projects, as partial mitigation for
2 salmon and steelhead losses caused by the construction of Grand Coulee. These provisions
3 complement the collective existing and future activities of the state and tribal fish agencies with
4 management jurisdiction in the blocked area above Grand Coulee Dam. For this reason, deletion of
5 any of these measures would not be consistent with Section 4(h)(6)(A) of the Act. They are based
6 on the best available scientific knowledge, as required by Section 4(h)(6)(B) and they are least cost
7 alternatives consistent with Section 4(h)(6)(C). Although the Council asked the Tribes to reduce
8 the level of detail, and the Tribes tried, this has not been accomplished; instead, the Tribes “believe
9 that the level of detail that we have provided is what the Council’s Program should look like,”
10 compared to the “crude ideas” and inadequate information in most recommendations. In contrast to
11 many recommendations, the Tribes have provided “substantial biological justification and precisely
12 identified hydropower relatedness.” The UCUT Tribes’ fisheries staff is confident that the area can
13 realize these improvements, as they take into account the biological productivity, food web
14 interactions, habitat, and limiting factors that affect these populations in these areas.
15 “[I]mplementation of these measures will provide as close to a guarantee for success as the Council
16 is likely to achieve for any measure” in the program.

17
18 The UCUT Tribes provided an extensive explanation as to why resident fish substitution
19 projects in the blocked area above Grand Coulee should receive top priority for funding. This
20 includes: (1) The Council never provided a substantive reason for removing the priority language in
21 the 1987 program, a deletion not supported by the UCUT Tribes or the Colville Tribes. (2)
22 Baseline studies for the projects in the 1987 program have been conducted, but most of the related
23 on-the-ground projects had not commenced when the Council altered the priority language,
24 primarily because the Council required extra process and review for the Tribes’ projects. The
25 Council should not have removed the priority language until after these enhancements were
26 completed, achieving on-the-ground benefits that protect the investments in the baseline studies. (3)
27 Since the priority language was removed, funding levels for certain Lake Roosevelt projects have
28 been reduced and project implementation and completion further delayed. Adequate funding for
29 these 1987 projects needs to come first before money is released for other projects. (4) An
30 important biological reason is that enhancement measures for salmon, such as habitat, screening and
31 flow improvements, will greatly benefit resident fish below the blocked areas, while the salmon flows
32 have the potential to do great damage to resident fish in the storage reservoirs, particularly in the
33 upper Columbia above Grand Coulee, where the most water is to come from. (5) With the decline
34 in salmon fishing, fishing pressure east of the Cascades has increased, dramatically at Lake
35 Roosevelt. It is critically important to restore and enhance these fish before the fishing pressure
36 further damages them. (6) Bonneville has invested \$1 billion in fish and wildlife protection and other
37 federal agencies have invested more (habitat restoration, Mitchell Act and Lower Snake River
38 Compensation Act, Corps project modifications, etc.) nearly all of which has benefited anadromous
39 and resident fish below Grand Coulee and been intended for lower river mitigation. Bonneville and
40 the other agencies have invested little above Grand Coulee (the Tribes provided a table showing
41 who has received Bonneville expenditures), while resident fisheries above Grand Coulee have been
42 in steady decline and altered ecosystems are biologically unstable. In fact, historic mitigation for the
43 salmon passage block at Grand Coulee has been lower river hatcheries, not mitigation assistance

1 above Grand Coulee in the territories of the UCUT Tribes. Federal fish agencies continue to ignore
2 the needs of upriver fisheries when developing salmon recovery strategies. The long history of
3 neglect, and the biological need, indicate that priority must now be given to the blocked area above
4 Grand Coulee.

5
6 In response to comments questioning or objecting to biological objectives and strategies
7 involving non-native fish, such as largemouth bass and others, the Tribes noted that inundation has
8 altered habitat and blocked passage, making it virtually impossible to restore some native species
9 and providing habitat and niches to which some non-native fish are better adapted to survive
10 naturally. Thus the UCUT Tribes' primary goal is "to restore ecosystems to promote biological
11 diversity and ecosystem stability, as well as restore and enhance subsistence and recreational
12 fisheries for tribal members. In some cases, this will necessitate enhancing non-native species that
13 are better adapted to the altered ecosystem. In other cases when possible, it will involve enhancing
14 weak but recoverable populations in native habitats." For example, the Pend Oreille River used to
15 be cutthroat trout and bull trout habitat, much of which has been inundated by dams. Box Canyon
16 Dam for example has flooded the reach adjacent to the Kalispel Reservation. There is no more
17 native trout habitat to speak of. The kind of habitat that now exists in these areas supports
18 largemouth bass, not trout. (174, 196, 197)

19
20 The Kalispel Tribe added to the UCUT comments their particular support for the statement
21 of resident fish substitution policies and priorities in Section 10.8A and the biological objectives,
22 strategies and measures in Section 10.8B. Biological objectives are important to include in the
23 program "so that the effectiveness of dollars spent can be monitored as to the benefit to fish and
24 wildlife." The Council should require that all measures have associated biological objectives. (174,
25 194)

26
27 The Colville Confederated Tribes supported proposed Section 10.8A (policies) in its
28 entirety. (226)

29
30 The Washington Department of Fish and Wildlife concurred that the priority for resident fish
31 substitutions should be above blocked areas. And since hydropower impoundments do not provide
32 adequate habitat to completely compensate for the total losses, priority consideration should also be
33 given to off-site areas such as waters in the Columbia Basin Irrigation Project and in lowland lakes.

34
35 WDFW also concurred with the biological objectives for the management of Lake
36 Roosevelt stated in proposed Section 10.8B.3. "It should be understood by all involved that the
37 objectives may not be fully attainable because strategies favoring one species may conflict with the
38 needs of other species or with strategies for recovering depressed anadromous salmonid stocks."
39 (In a technical comment, WDFW noted that in the line for "walleye" in the table of Lake Roosevelt
40 biological objectives in Section 10.8B.3, a "U" for "unknown" should be listed in the column for
41 "total adult fish" in order to be consistent with the fact that the escapement objective is unknown,
42 and the total adult fish objective is a combination of the harvest and escapement objectives.) With
43 regard to the strategies stated in Section 10.8B.4 for achieving the biological objectives for Lake

1 Roosevelt, WDFW recommended that this section should include a description of measures to
2 improve habitat conditions in the reservoir, such as standards for minimum elevation and water
3 retention times and re-establishment of shoreline vegetation. These strategies are discussed in other
4 sections of the program but should also be described in Section 10.8B.4.

5
6 Finally, WDFW commented that the biological objective in Section 10.8B.11 to increase
7 production and stocking of exotic brook trout on the Colville Indian Reservation by 10 percent be
8 consistent with management objectives for bull trout, westslope cutthroat and indigenous stocks of
9 rainbow trout. (230)

10
11 The Confederated Salish and Kootenai Tribes and the Montana Department of Fish,
12 Wildlife and Parks both commented that proposed Sections 10.8B.3 through 10.8B.21 (biological
13 objectives and strategies and the Lake Roosevelt measures assigned to the Spokane Tribe) are “too
14 detailed” to be included in the program, a level of detail more appropriate to implementation plans.
15 The Tribes and the Department also found several proposals to have “little merit,” questioning in
16 particular, as the Tribes stated, “the viability of native trout management while increasing the
17 biomass of an introduced top predator, largemouth bass.” The Department explained that
18 proposed Section 10.8B.9 contains biological objectives for largemouth bass, cutthroat and bull
19 trout in Box Canyon Reservoir, objectives that call for cutthroat and bull trout improvement but also
20 for increased biomass of catchable largemouth bass.

21
22 Both the Montana Department of Fish, Wildlife and Parks and the Confederated Salish and
23 Kootenai Tribes stated general concerns with the development of biological objectives for the
24 resident fish program. Noting the Tribes’ comments as an example (both sets of comments are
25 summarized above under Section 10.1), the Tribes stated that the development of biological
26 objectives is “uncertain at best,” while monitoring to determine whether objectives have been
27 achieved “is equally problematic.” Biological objectives should be developed within “an adaptive
28 mitigation/implementation plan associated with a particular hydropower project and approved by
29 the Council.” There is no need to include objectives in the program itself. The development of loss
30 statements is a “credible and reasonable alternative” to the development of biological objectives, as
31 shown by the Hungry Horse mitigation plan, which is based on a Council-approved loss statement,
32 as will be the similar plan developed for Libby Dam. In fact, meaningful biological objectives can be
33 developed only after losses are determined. For this reason, the Tribes recommend substituting
34 “development of loss statements” for “development of biological objectives” throughout Section 10.
35 (186, 191, 202)

36
37 The Columbia River Inter-Tribal Fish Commission and one of its members, the
38 Confederated Tribes of the Umatilla Indian Reservation, noted that the biological objectives and
39 strategies for substitution include non-salmonids (e.g., warm water predators and competitors such
40 as walleye, bass and yellow perch) which have the potential to upset the biological integrity of
41 downstream areas important to anadromous production. Reservoir water management operations
42 and fish stocking practices have increased entrainment losses which distribute undesirable species
43 downstream into anadromous fish rearing and migration areas. For these reasons, the Council

1 should amend Section 10.8A and 10.B to emphasize the development of fish and fisheries for
2 resident fish stocks that are compatible with anadromous fish. “Resident fishery development and
3 substitutions should in no way conflict with rebuilding of anadromous fish or impact the treaty fishing
4 rights of our member Tribes”. CRITFC also commented that in general the numerical targets for
5 production and harvest are not “biological objectives” under Section 4(h)(6), and should be called
6 “management objectives” instead. Biological objectives under the Act “should specifically address
7 life history requirements of species impacted by the dams.” (232, 233)
8

9 The Oregon Department of Fish and Wildlife commented that the resident fish substitution
10 policy proposed for Section 10.8A “narrowly interprets” the priorities described in Section 10.1B
11 so as “to work only above Grand Coulee until all their anadromous fish losses are mitigated for by
12 resident fish substitutions. This conflicts with our desire to remove resident fish substitution from
13 highest priorities to ensure native resident fish mitigation as the focus of resident fish measures.”
14 ODFW also commented that the Council should “incorporate biological objectives and non-
15 reservoir operation strategies for achieving biological objectives as appropriate in the Watershed
16 Equity Team recommendations” and “[d]elete questionable references to water management
17 strategies.” (234)
18

19 The Idaho Department of Fish and Game provided a number of general and specific
20 comments on the Section 10.8A and 10.8B revision. First, IDFG stated that proposed Section
21 10.8A, on policies, is both redundant and contradicts Sections 10.1. Section 10.1 provides the
22 goal and priority statement for resident fish programs, which need not be repeated in Section
23 10.8A. In addition, the blocked-area priority in Section 10.1 includes the area upstream of Hells
24 Canyon Dam as of equal priority with the area above Chief Joseph/Grand Coulee dams, which is
25 not true of proposed Sections 10.8A, 10.8B and 10.8B.16. IDFG “strenuously objects” to the
26 attempt by the upper Columbia River managers to place blocked areas above Chief Joseph/Grand
27 Coulee as a higher priority than the blocked areas upstream of Hells Canyon Dam. Further, not all
28 the fishery managers were involved in identifying these policies or the biological objectives. IDFG
29 noted that resident fish substitution above Hells Canyon deserves equal consideration especially in
30 light of how little has been accomplished there to date. This is not an issue of federal vs. private
31 power; it concerns the “direct losses of the fishery from the federal power system” even assuming
32 private power was not present. As an example, poor smolt survival through the federal system has
33 kept IDFG from attaining anadromous fish mitigation from Idaho Power.
34

35 In another comment on Section 10.8A, IDFG noted that the Council’s program does not
36 describe Section 2.2E.7 (which calls on the fish managers to assess trade-offs between resident fish
37 and wildlife species and anadromous fish) as a “high priority,” as labeled in proposed Section
38 10.8A. This needs to be clarified or changed.
39

40 On Section 10.8B, IDFG commented generally that the objectives, strategies, and measures
41 in Section 10.8B do not provide sufficient detail for meaningful comment. As examples, IDFG
42 queried, What are the boundary waters? Are they a boundary to the reservation? or to the state of

1 Washington? or the U.S.? Is it possible for brook trout and Lahontan cutthroat to migrate outside
2 the reservation boundaries?
3

4 With regard to the biological objectives and strategies, IDFG commented that without
5 background data it is difficult to assess the practicality and feasibility of target escapements in the
6 statement of the biological objectives. With specific regard to the biological objectives and
7 strategies related to bass, IDFG questioned the logic and effectiveness of using hatcheries to
8 supplement warm water (bass) production. The Department further questioned the use of brook
9 trout and Lahontan cutthroat for stocking in waters which might impact non-tribal areas. Brook
10 trout have been identified as a leading contributor to declines in bull trout, while Lahontan cutthroat
11 are another exotic species of salmonid to the Columbia Basin which might be expected to compete
12 with native species. IDFG also noted that while the biological objectives for the lakes and streams
13 on the Colville Reservation propose the introduction of brook trout (proposed Section 10.8B.11), a
14 different measure for the Kalispel Tribe proposes the eradication of brook trout (proposed Section
15 10.8B.32). Consistency is in order. If the region wants to protect and enhance native salmonid
16 populations (i.e., bull and cutthroat trout), then the introduction of brook trout and other exotic
17 salmonids should be discouraged. Finally, with regard to the biological objectives and strategies for
18 kokanee in Lake Roosevelt (proposed Sections 10.8B.3 and 10.8B.4), IDFG commented that the
19 determination of wild kokanee population status should be conducted prior to any planning of
20 hatchery-reared kokanee. The hatchery program should begin only if the kokanee population is
21 depressed and if there are no alternatives that would boost natural kokanee productive success
22 (e.g., altering flow regimes, spawning ground habitat improvement, etc.). (174, 227)
23

24 Bonneville commented on various aspects of the proposed biological objectives and
25 strategies, in addition to Bonneville's general comments on biological objectives addressed to the
26 Section 10.1 framework (summarized above) and referenced in this section. (Bonneville also
27 referenced its comments on Section 4 in the 1994 anadromous fish program amendments.) With
28 regard to the Lake Roosevelt, Coeur d'Alene Reservation and Kootenai River sturgeon and
29 kokanee biological objectives proposed in Sections 10.8B.3, 10.8B.5 and 10.8B.6, Bonneville
30 commented that these appear to be a mixture of goals and measures and a mixture of wildlife and
31 resident fish mitigation. These should be separated where possible. Annual targets of harvestable-
32 size adult fish may be more appropriately characterized as "goals" rather than biological objectives.
33 And with regard to the proposed Kootenai River sturgeon biological objectives in Section 10.8B.7
34 and supplementation strategies in Section 10.8B.8, Bonneville stated these should be re-evaluated in
35 accordance with the USFWS biological opinion, any ESA Section 10 permits issued to the
36 Kootenai Tribe, and any information available from the Kootenai River white sturgeon recovery
37 team. (229)
38

39 Trout Unlimited, Montana Council, commented that the resident fish substitution policy
40 should be modified to insure that funding priorities for supplementation and habitat enhancement put
41 native fish first and that no project adversely affect native redbands, cutthroats and bull trout. The
42 Council should evaluate how the proposed amendments, especially those dealing with
43 supplementation of fish such as perch, walleye, brook trout, or non-resident kokanee and rainbows,

1 might adversely affect range-wide recovery of troubled resident natives. The top priority must be to
2 insure the long-term viability of these species. (186)

3
4 Oregon Trout opposed the recommended additions to Section 10.8A, expanding the
5 statement of the resident fish policy, on the grounds that substituting non-native fish for lost
6 anadromous fish should never be allowed, because this section “is flawed due to the general
7 concept of substituting resident fish as opposed to mitigation for the loss of anadromous fish,” and
8 because this section limits the blocked area policy so as not to include the blocked areas of the
9 Willamette and Deschutes Rivers. (168, 209)

10
11 The Oregon Natural Resources Council recommended a set of principles and priorities for
12 the Council to follow: (1) Most important, and what should be central to all parts of the program, is
13 that native fish should be treated separately from, and be given clear preference over, exotic
14 species. The Council should actively seek and give preference to solutions that benefit all native
15 species. (2) Correcting problems through protection and restoration should always take
16 precedence over “mitigating,” “substituting” and “compensating for problems (e.g., mitigation
17 through hatchery production has caused more problems than it has solved). (3) Biological need and
18 opportunity should determine which species are given the highest priority for protection and
19 restoration. (4) Active protective measures should take priority over more studies. ONRC
20 opposed programs and projects designed to protect or enhance exotic species (or even biologically
21 healthy native species) when native species are fighting for survival. ONRC noted that it is sensitive
22 to the fact that native peoples who once depended on salmon now rely on warm-water species, but
23 that restoration of native species is much more likely to satisfy legal and moral obligations to the
24 tribes in the long run. The Council should look for ways to fulfill obligations to the tribes by
25 restoring native fish stocks, including reopening habitat currently blocked. (231)

26
27 The National Park Service, Coulee Dam National Recreational Area, commented generally
28 that it supported recommendations calling for greater environmental protection for resident fish and
29 wildlife habitat, particularly in Eastern Washington. (228)

30
31 Public Utility District No. 1 of Okanogan County commented that the habitat above Enloe
32 Dam is not appropriate for salmon passage and should instead be considered for and as part of the
33 resident fish substitution priorities and measures for the area above Chief Joseph/Grand Coulee
34 dams. The PUD based this request on four grounds: (1) the British Columbia government and the
35 British Columbia Indian tribes on the Similkameen River are against salmon passage to conserve
36 natural genetic diversity, avoid disease and protect native cultures; (2) the idea of using the upriver
37 Similkameen as replacement habitat for fish losses caused by construction of the upper Columbia
38 federal projects (Chief Joseph and Grand Coulee dams) has already been discussed at the Council;
39 (3) since proposed anadromous fish projects involving the British Columbia portion of the
40 Similkameen River have not had tangible results, it appears that cooperation by all parties involved
41 on resident fish enhancement is an idea whose time has come to the Similkameen River; (4) the
42 Colville Tribe could benefit from such cooperation since there is a fairly sizable Indian allotment at
43 the confluence of Palmer Creek with the Similkameen River. (222)

1
2 A number of individual commentors generally objected to recommendations and proposals
3 to introduce, protect and enhance non-native resident fish, such as rainbow trout, walleye, perch
4 and bass, because of the potential negative effects (competition, predation, etc.) on native resident
5 fish and/or because of the impacts on native anadromous fish (for the same reasons and because of
6 the possibility of flow changes, etc.). Commentors included Friends of the Wild Swan; Bhagwati
7 Poddar and Saradell Poddar, Astoria, Oregon; and Sue Knight, Portland, Oregon. (16, 162, 165)
8

9 Lake Roosevelt/Spokane Tribe/Colville Tribes measures. Comments specifically directed
10 to the recommended water retention times and reservoir levels at Grand Coulee are summarized
11 and addressed above in the findings on Section 10.3E.
12

13 The UCUT Tribes collectively and one member, the Spokane Tribe, confirmed their
14 support for the development of biological and integrated rule curves for Lake Roosevelt, including
15 adding wildlife components. They also confirmed their support for the Lake Roosevelt Monitoring
16 Program and the recommendation to expand its scope (proposed Section 10.8B.21), noting that
17 one of the purposes of the monitoring program was to analyze more precisely the ways in which
18 salmon flows affect the biota of the lake and the fish populations and to identify ways to deliver
19 water to the lower river without negatively impacting the upper river.
20

21 The UCUT Tribes and the Spokane Tribe added comments in support of their
22 recommendation for a new production well for the Tribe's kokanee hatchery and net pens for
23 rearing kokanee to post-smolt size (proposed Sections 10.8B.18 and 10.8B.19, both to stabilize
24 existing production and to allow for expanded production. Creel surveys show the fishing numbers
25 and pressure is increasing, indicating that Lake Roosevelt is becoming an important regional fishery.
26 There is a need to boost the productive ability of the hatchery to continue to support this growing
27 fishery, especially as the Spokane Tribe has discovered that kokanee fry releases do not survive
28 well, but post-smolt releases do. "The fishery is really starting to bloom, which makes it all that
29 more important to make sure that we operate Lake Roosevelt in a method that will sustain the
30 fishery." (174, 188, 196)
31

32 The National Park Service, Coulee Dam National Recreational Area, commented that if
33 biological rule curves are developed for Grand Coulee Dam, all the parties listed in the Lake
34 Roosevelt Cooperative Management Agreement, including the National Park Service, Bureau of
35 Indian Affairs, U.S. Bureau of Reclamation, Colville Confederated Tribes, and the Spokane Tribe
36 of Indians, should provide technical and management expertise as available and be afforded the
37 opportunity to review any draft recommendations produced. (228)
38

39 The Colville Confederated Tribes commented to confirm their support for the various Lake
40 Roosevelt measures in Section 10.8B that they are implementing or participating in. With regard to
41 proposed Section 10.8B.22 (trout hatchery), the Colville Confederated Tribes explained that this is
42 an existing measure to which has been added monitoring and evaluation language. Monitoring and
43 evaluation is necessary to evaluate the programs progress towards its identified biological

1 objectives, and is consistent with the Council's request for development of biological objectives,
2 adaptive management and accountability. With regard to proposed Section 10.8B.23 (natural
3 kokanee production evaluation), the Colville Tribes explained that this is an existing measure that
4 has added language to more clearly identify the purpose and details of the called-for evaluation.
5 The additional language has not altered the original scope of work for the program. Proposed
6 Section 10.8B.24 (calling for an entrainment study at Grand Coulee) "appears to be a duplication of
7 the entrainment phase of measure 10.8B.23." Finally, proposed Section 10.8B.26 is the monitoring
8 and evaluation phase for proposed Section 10.8B.25 (habitat and passage pilot projects in Lake
9 Roosevelt tributary streams) and could be combined. (174, 226)

10
11 The Washington Department of Fish and Wildlife commented that it fully supports and
12 encourages the Council's continued funding for the Lake Roosevelt Monitoring Program (proposed
13 Section 10.8B.21), noting particularly that the cooperative effort has been a catalyst for useful
14 partnerships between Bonneville, the Council, the Spokane Tribe, the Colville Confederated Tribes,
15 Eastern Washington University, and WDFW. (242)

16
17 The Lake Roosevelt Development Association -- implementors of the Lake Roosevelt net
18 pen rearing project set forth in existing 10.8B.17 and incorporated in the rewrite as proposed
19 Section 10.8B.27 -- expressed their continued commitment to this measure and asked for the
20 Council's assistance in obtaining funding, submitting in support tables showing their draft budget for
21 1995, their budget agreement with Bonneville, and 1977-1994 Coulee Dam National Recreation
22 Area Park Visitation records for total visitation, boat launches and campers (158, 174). Al
23 Stangland, Edwall, Washington, commented in support of the net pen program in Lake Roosevelt
24 and in support of efforts to protect the fisheries in Lake Roosevelt from the adverse effects of Grand
25 Coulee operations for anadromous fish flows. (164)

26
27 In the context of general comments approving of the Council's draft resident fish
28 amendments, a planner for the Columbia River Estuary Study Task Force emphasized the need for
29 the proposed improvement in the monitoring and evaluation programs for the fish populations behind
30 Grand Coulee Dam. (200)

31
32 Kalispel Tribe -- Pend Oreille and Box Canyon objectives, strategies and measures; yellow
33 perch aquaculture facility (proposed Sections 10.8B.9, 10.8B.10, 10.8B.29, 10.8B.30, 10.8B.31,
34 10.8B.32, 10.8B.34, 10.8B.35). The Idaho Department of Fish and Game commented, with
35 regard to the Kalispel Tribe's proposal for a bull trout and cutthroat trout evaluation in the Pend
36 Oreille River (Section 10.8B.30,) that at least part of the Pend Oreille River flows through the state
37 of Idaho, yet the proposal does not include any discussion of a consultation with IDFG. (227)

38
39 The Montana Department of Fish, Wildlife and Parks commented, with regard to proposed
40 Section 10.8B.29, that the Department does "not believe it is appropriate to design, construct and
41 maintain a yellow perch aquaculture facility using Fish and Wildlife program dollars." (202).

1 The Pend Oreille County Public Utility District, Newport, Washington, generally supports
2 the Kalispel Tribe's efforts to improve fish populations in the Box Canyon reach of the Pend Oreille
3 River and tributaries, especially through riparian habitat restoration (proposed Sections 10.8B.9,
4 10.8B.10, 10.8B.31, 10.8B.32, 10.8.34, 10.8B.35). The District is aware of five entities either
5 conducting or planning to conduct bull trout surveys in Box Canyon Reservoir and tributaries; to
6 avoid unnecessary inconsistencies, duplication and conflict, the District called for coordination of all
7 surveys and enhancement efforts in this area. The District noted that it is currently initiating
8 relicensing efforts for Box Canyon Dam and will be consulting with affected parties, as well as
9 conducting studies of various fish species in reservoir, as part of the relicensing process. The
10 District wants to participate in the studies proposed in these measures and suggests that consistent
11 methodologies need to be adopted by relevant parties to assess fish populations, especially bull
12 trout. The District requested that study results and enhancement planning efforts be coordinated in a
13 systematic manner and that strategies be developed with input from all relevant parties. (216)
14

15 Coeur d'Alene Tribe-- tributary habitat enhancement proposal (proposed Sections
16 10.8B.36, 10.8B.37) The Coeur d'Alene Tribe confirmed their support for this recommendation,
17 and explained that their priority was restoring the productivity of watershed streams for native fish;
18 that years of study had narrowed their focus to the habitat restoration plans for the four streams
19 noted in the recommendation as the most cost-effective to begin restoration activities; that the Tribe
20 and the state have cooperated in closing four major drainages to fishing that had viable but
21 depressed trout populations, as one of the first steps in the overall restoration effort; that the close of
22 fishing has had a major impact on both tribal and non-tribal fishers; and that the trout ponds that are
23 part of the recommendation are intended as a short-term solution to allow for some harvest while
24 the restoration work occurs and have the opportunity to be self-sufficient in the long term as a
25 means to reduce fishing pressure on the wild stocks once the stream are reopened to fishing. Some
26 of the trout ponds will play a second role by being incorporated into the stream systems as holding
27 areas and rearing facilities for the trout as the habitat is not now conducive for rearing fish. Another
28 component of the program is the "critical area of protection approach," taking advantage of
29 opportunities to purchase stream sites, critical wetlands and upland areas for protection, with
30 benefits for resident fish and wildlife together. The various recommendations are components in a
31 comprehensive watershed approach, with linkages between all parts and broadly spread benefits,
32 while getting rid of much of the process-related activities and costs. (174)
33

34 Oregon Trout supported most of this proposed measure, "as it sets in motion a long-term
35 restoration program for native or wild trout." However, a specific time frame needs to be attached
36 to the "interim trout fishery proposed for trout ponds and a trout hatchery" so that once the
37 restoration project yields results, the trout ponds and hatchery can be terminated and the funds
38 redirected to "more long-term, beneficial projects." (209)
39

40 Bonneville provided a general comment on all proposals for specific wildlife projects, which
41 applies to the Coeur d'Alene's proposed land purchase, recommended as both a resident fish and
42 wildlife project: "Where the draft amendments include specific measures such as dictating the
43 purchase of land in a specific quantity in a particular area, the Council must have thoroughly

1 examined the proposal and made findings under section 4(h)(5), (6), (7) and (8). These finding
2 need to be part of the draft Program amendment review. Specifying the transfer of land into trust
3 with the BIA does not appear to fall within the scope of the program.” (229)
4

5 Kootenai River white sturgeon recovery strategy (proposed Sections 10.8B.7, 10.8B.8,
6 10.8B.40 and 10.8B.41). The U.S. Fish and Wildlife Service commented that the Service has
7 jurisdiction under the Endangered Species Act for this listed species and is in the process of
8 developing a recovery plan. The Service requested that the Council defer any decision on the
9 recommendation to allow the recently formed Kootenai River white sturgeon recovery team to
10 develop the proposed recovery plan. (139)
11

12 The Idaho Department of Fish and Game stated that it is premature and inappropriate for
13 the Council to adopt any recovery strategy when there is a recovery team in place comprised of all
14 the appropriate fish managers trying to develop a recovery plan. Besides the USFWS, Idaho,
15 Montana and British Columbia are working on recovery efforts; the Kootenai Tribe is not the only
16 entity developing a recovery plan. The recovery goal should be natural recruitment, not hatchery
17 production, in accordance with the Endangered Species Act. Sturgeon should be taken into the
18 hatchery only in the driest 33 percent of the years, not every year. There is an ongoing project
19 designed to determine what flows are necessary for successful sturgeon recruitment in the river, and
20 if the flows are feasible. This adaptive-management-style project should be completed before any
21 recovery plan is adopted. (227)
22

23 The UCUT Tribes confirmed their support for the recommended recovery strategy. In
24 response to comments from IDFG and USFWS asking the Council to wait for the development of
25 the ESA recovery plan, the UCUT Tribes noted that it will take several years for that plan to be
26 completed, and that the Council set a precedent by adopting anadromous fish recovery strategies
27 prior to NMFS developing a Snake River salmon recovery plan. Also, the recommended strategy
28 is more specific than the USFWS’ biological opinion for sturgeon, which is lacking in details, and
29 offers some real prospect for recovery. “Therefore we expect the Council to act on our proposed
30 measure,” which represents the best available scientific knowledge as required by Section
31 4(h)(6)(B), based as it is on the work of Dr. Kincaid. The recovery strategy also utilizes the least-
32 cost alternative where equally effective alternatives exist, as required by Section 4(h)(6)(C), and
33 complements the activities and legal rights of the tribes as required by Section 4(h)(6)(A) and (D).
34 The UCUT Tribes clarified that the flow recommendations are intended to be consistent with the
35 Libby Dam integrated rule curves adopted by the Council, and that the rest of the flow language
36 “was an attempt to describe the share-the-wealth concept in above average, average and below-
37 average runoff years. The Kootenai Tribe and the UCUT Tribes are willing to consider
38 modifications to the measure to make these points clear. (174, 196)
39

40 The Confederated Salish and Kootenai Tribes commented that these sections contain too
41 much detail for inclusion in the program. The Tribes “agree to a sliding scale approach to providing
42 sturgeon flows as proposed by the Integrated Rule Curves.” (191)
43

1 The Montana Department of Fish, Wildlife and Parks agreed with the Salish-Kootenai
2 Tribes that these sections contain too much detail. The Department also commented a sliding scale
3 should be used to determine the amount of flow provided for sturgeon spawning, recommending the
4 schedule included in the Libby Dam IRCs. The flow/runoff scenarios in the proposed amendment
5 are not the same as included in the IRCs for Libby Dam, even if intended to be, and thus these need
6 to be made consistent. The Department also stated that it supported the creation of a water budget
7 team as described in the proposed amendments, “as well as BPA funding participation on this
8 team.”
9

10 MDFWP commented further that “[t]he white sturgeon recovery team has compiled short-
11 term and long-term objectives for white sturgeon recovery from Montana, Idaho and the Kootenai
12 Tribes. The sturgeon releases described are similar to Montana’s IRC concept for Libby Dam
13 operation. However, the shape, volume and duration of sturgeon releases are the subject of
14 scientific investigation and are expected to be improved as new information becomes available.
15 Because of the dynamic nature of the recovery effort, it may suffice to say that the Council will
16 incorporate the recommendations of the white sturgeon recovery team.”
17

18 Finally, MDFWP recommended these proposed sections be combined in some way with all
19 of Section 10.4, concerning sturgeon mitigation, “so that all of the white sturgeon recovery activities
20 are located in one place in the plan.” This will allow any inconsistencies between these sections to
21 be addressed as well. (186, 202).
22

23 Kootenai Tribe’s base-line assessment (proposed Section 10.8B.42). The Kootenai Tribe
24 of Idaho submitted a comment that was in effect a revision of proposed Section 10.8B.42 (what
25 was existing Section 10.8B.16 with minimal revisions) to clarify the nature of the study called for in
26 that measure. The revised section would read as follows: “Perform a five year Kootenai River
27 ecosystem status determination and improvement study. Upon completion, this study will: 1)
28 provide a comprehensive ecosystem status report; 2) evaluate the biological feasibility of restoring
29 system productivity; 3) identify effects of hydropower operations (Libby Dam) on aquatic biota and
30 fish assemblages; and 4) develop, evaluate, test and analyze solutions to ecosystem problems
31 caused by factors currently limiting system productivity, such as nutrient limitation and hydropower
32 effects.” (249)
33

34 Washington Department of Fish and Wildlife measures (proposed Sections 10.8B.44 and
35 10.8B.46). The Washington Department of Fish and Wildlife noted that the comprehensive Section
36 10.8B rewrite version that is in the proposed amendments is silent as to the timing for
37 implementation of WDFW’s proposals for the Phalon Lake and Ford Hatchery fish culture
38 projects. WDFW recommended that both projects begin in Fiscal Year 1996 and follow the
39 implementation schedule laid out in the explanation that accompanied WDFW’s original, separate
40 recommendation for these two projects. (230)
41

1 **Findings:** The Council adopted this recommendation, with nine modifications, three of
2 them concerning the recommended Kootenai River white sturgeon recovery strategy. The Council
3 also reorganized and renumbered the measures in the final rule.
4

5 First, the Council incorporated into the UCUT Tribes' comprehensive revision of Section
6 10.8B (a) the Colville Tribes' recommended revision to the kokanee production evaluation (as
7 Section 10.8B.7 in the final rule) and (b) the Phalon Lake trout recommendation from the
8 Washington Department of Fish and Wildlife (as Section 10.8B.25 in the final rule). These changes
9 are explained in the discussion of the draft, above.
10

11 Second, the Council revised the Kootenai Tribe's base line ecosystem evaluation in Section
12 10.8B.42 (now Section 10.8B.22 in the final rule) as suggested by the Tribe in the comment
13 described above. The Council adopted this revision with the understanding that this proposed
14 language clarified what was already the intent of the measure.
15

16 Third, the Council revised the statement of the resident fish substitution policy in proposed
17 Section 10.8A to briefly describe the nature of the problem addressed by resident fish substitution
18 activities and then to note that resident fish substitution measures are to be implemented consistent
19 with the Council's statement of goals, principles and priorities in Sections 10.1 and 10.2. In
20 revisions to Section 10.1A, the Council set forth principles to guide the resident fish substitution
21 portion of the program, incorporating policies described in the existing Section 10.8A and retained
22 in the recommended revision to Section 10.8A. With regard to the recommended additions to
23 Section 10.8A, this language has been superseded by the principles and priorities adopted in
24 Section 10.1. In Section 10.1B the Council elevated resident fish substitution activities in the areas
25 where anadromous fish were blocked by federally operated hydropower development to be one of
26 the two highest priorities of the resident fish program, just slightly below rebuilding efforts for weak
27 but recoverable native fish populations. Resident fish substitution activities in areas blocked by
28 federally licensed and regulated hydropower development is listed as one of the high priorities of the
29 resident fish program. The findings for Section 10.1 explain why the Council made the decisions it
30 did with regard to policies and priorities.
31

32 Fourth, the Council deleted the recommended introduction to Section 10.8B, deciding that
33 the findings were a more appropriate place for a summary of the projects approved for the area
34 above Chief Joseph/Grand Coulee and their purpose. This language notes that the Council has
35 "approved projects at Lake Roosevelt, tributaries and reservoirs of the Box Canyon Reach of the
36 Pend Oreille River, tributaries of Coeur d'Alene Lake on the Coeur d'Alene Indian Reservation,
37 Kootenai River, lakes and streams of the Colville Indian Reservation, and Moses Lake in the
38 blocked area above Chief Joseph/Grand Coulee Dams as resident fish substitutions to partially
39 mitigate for salmon and steelhead losses incurred as a result of the construction and operation of
40 these federal hydroelectric projects." The Council also deleted a summary statement in proposed
41 Section 10.8B.2 noting that the Council had approved the recommended specific biological
42 objectives and strategies into the program.
43

1 Fifth, the Council modified the recommended language for Section 10.8B.1 (now part of the
2 introductory text to Section 10.8B) to explain more clearly that the statement concerning the
3 quantitative relationship between the specific biological objectives recommended and the losses of
4 anadromous fish represents the judgment of the fish managers in the blocked area above Grand
5 Coulee/Chief Joseph dams based on their review of the best available scientific knowledge. The
6 Council recognizes that this is a preliminary accounting and that the actual amount of credit to be
7 applied against the losses will be based on monitoring and evaluation of the implemented strategies
8 based on the crediting methodology developed pursuant to Section 10.1D.

9
10 Sixth, the Council modified the last elements in the Lake Roosevelt monitoring provision
11 (proposed Section 10.8B.21; now Section 10.8B.5) to make clear that the evaluation of monitoring
12 data and the development of biological and integrated rule curves at the lake are to be a
13 collaborative process involving the tribes and the appropriate state and federal agencies.

14
15 The last three modifications concern the Kootenai Tribes' recommended Kootenai River
16 white sturgeon recovery strategy. The Council adopted the strategy, both the objectives and the
17 measures. The Council's modifications are not intended to affect the substance of the strategy: In
18 the seventh modification, the Council added language to the Kootenai River white sturgeon recovery
19 strategy to note that when the U.S. Fish and Wildlife Service develops a Recovery Plan for this
20 population, the Council will consult with the Kootenai Tribe, the USFWS, and other interested
21 entities to determine if the USFWS' recovery plan is consistent with the recovery strategy adopted
22 here, and if not, whether and how the recovery strategy should be revised. Commentors suggested
23 that the Council defer action on the Kootenai Tribe's recommended recovery strategy while the
24 USFWS developed the recovery plan. The Council accepts the biological and management
25 judgments of the Kootenai Tribe that additional mitigation actions need to begin now to protect this
26 population from further decline and to begin recovery, and that the recommended objectives and
27 measures are appropriate for this purpose. These judgments are not conclusive, and will be tested
28 in the monitoring and evaluation of the recovery strategy and in the efforts by the USFWS to
29 develop the recovery plan. The comments and other information submitted to the Council do not
30 indicate that implementation of the recommended recovery strategy would interfere or hinder the
31 development of a recovery plan by the USFWS. The Council presumes, instead, that implementing
32 and evaluating the recovery strategy in an adaptive management framework should assist the
33 development of a sophisticated recovery plan. Under this approach, it is only logical to call for a
34 reevaluation of the recovery strategy once the USFWS does finally develop the recovery plan.

35
36 Eighth, in response to comments from the Confederated Salish and Kootenai Tribes and the
37 Montana Department of Fish, Wildlife and Parks, the Council modified the recommended language
38 to state explicitly that the flow experiments to benefit sturgeon are to be conducted "in a manner
39 consistent with the integrated rule curves for Libby Dam" and that "implementation and duration of
40 discharge will be consistent with Sections 10.3B.1 and 10.3B.2" (the rule curves for Libby Dam).
41 The Kootenai Tribe had included the following flow guidelines in its recommendation:
42

Water years	percent wettest years	MAF ^a	Discharge @ Bonners Ferry(kcfs) ^b	Duration ^b
Above average >	66 percent	<7	25-35 ^c	45 days
Average	33 percent-66 percent	6-7	15-25	45 ^c
Below average	<33 percent	<6	>4 ^d	

a million acre feet of water in Lake Koocanusa.

b implementation and duration of discharge will be consistent with Section 10.3B.1 and follow the integrated rule curve the Council approved for Libby Dam (Section 10.3B.2).

c duration may vary based on water availability.

d minimum instream flow established in Section 10.3B.1.

As noted in the footnotes to the table, the Council is of the understanding that the Kootenai Tribe intended the flow guidelines to be consistent with the integrated rule curves the Council adopted for Libby Dam, which include sliding scale releases for sturgeon. To avoid the possibility that the recommended flow guidelines here are inadvertently inconsistent with the IRCs, and thus the Council would have inconsistent sets of operating criteria for Libby Dam in the program, the Council chose instead to delete the flow guidelines and refer simply to the IRCs and Section 10.3B. The Kootenai Tribe's flow guidelines are noted here, however, so that interested entities will be aware of them and so that the guidelines can be further evaluated for consistency with the IRCs and for their own biological merit. If the flow guidelines recommended by the Kootenai Tribe turn out not to be consistent with the IRCs for Libby, the relevant entities should consult to resolve these inconsistencies.

Ninth, in response to a comment from the Montana Department of Fish, Wildlife and Parks and its own review, the Council moved these Kootenai River white sturgeon provisions (biological objectives and measures) to a new Section 10.4B, in company with the other sturgeon measures in the program in Section 10.4A. The recovery strategy recommended by the Kootenai Tribe is not a substitution activity; it is instead a strategy intended to mitigate for the impact of hydropower facilities (primarily Libby Dam) on this sturgeon population.

The Council considers these modifications to be relatively minor, as the Council substantially adopted the biological objectives and measures recommended by the UCUT Tribes for resident fish substitutions in the blocked area above Chief Joseph/Grand Coulee dams. The Council concludes that the recommendation as modified is more effective than the original recommendation in protecting, mitigating and enhancing fish and wildlife, 16 U.S.C. §839b(h)(7)(C), and complements

1 better the activities of all the federal and state fish and wildlife agencies and tribes, 16 U.S.C.
2 §839b(h)(6)(A), (7)(B).

3
4 Many of the comments on the recommendation concerned the policy and priority issues,
5 especially the issues of native fish protection, the need for and validity of using introduced fish in
6 substitution activities in this area, and the question of whether substitution activities above Chief
7 Joseph deserve the highest priority when compared to other aspects of the resident fish substitution
8 program or to the rest of the resident fish program. These issues have been addressed in the
9 program language and findings on Section 10.1 and 10.2, above. Other comments addressed the
10 recommended reservoir levels and retention times for Grand Coulee operations, which the UCUT
11 Tribes incorporated in Section 10.8B as well as in Section 10.3E.3. These comments have been
12 addressed above in the findings on Section 10.3E.3. Many of the other comments were statements
13 of further explanation or support for all of part of the recommendation, from the UCUT Tribes, the
14 Colville Tribes, WDFW and others. The Council acknowledges these comments by adopting the
15 recommended measures.

16
17 One issue that many commentors raised that must be addressed here concerns the
18 biological objectives recommended by the UCUT Tribes for the substitution activities above Chief
19 Joseph/Grand Coulee dams. The commentors questioned objectives and associated measures for
20 introduced fish, as a potential threat to native fish protection and rebuilding efforts. Some of the
21 comments more generally questioned the scientific support for the objectives. These findings
22 already describe the Council's general position on the issue of biological objectives for the resident
23 fish program, in the findings above for Section 10.1C. With regard to these specific biological
24 objectives, the Council has these comments: After a review of the recommendation and the
25 comments, the Council has adopted these biological objectives into the program, giving due
26 consideration to the judgment of the recommending fish managers as to the expected biological
27 value of and available scientific support for the objectives. But as it did with the mainstem
28 objectives for anadromous fish, the Council adopts these objectives with certain understandings,
29 reflected in part in the discussion of biological objectives in the findings for Section 10.1C. The
30 biological needs of resident fish are tied to a complex ecosystem about which we know too little to
31 establish fixed biological objectives. By identifying specific, quantified biological objectives for
32 resident fish substitutions in this area, benchmarks are established against which the results of actions
33 can be measured. Efforts to monitor and evaluate these measures and then to test and re-evaluate
34 the biological objectives in light of new information are an essential part of this program. In this
35 way, biological objectives can help us to learn more about resident fish and their ecosystems. These
36 biological objectives do not, however, purport to be a conclusive resolution of biological issues.
37 Moreover, it may not always be clear whether or how these or any other biological objectives can
38 be achieved consistent with other objectives of the program and the hydropower system in general.
39 Determining how these objectives may be pursued in any given year is likely to remain a continuing
40 subject of discussion.

41
42 The commentors have in particular identified apparent inconsistencies between efforts to
43 protect and rebuild native bull trout and westslope cutthroat populations and biological objectives

1 and measures for increased production of largemouth bass in the Box Canyon reach of the river,
2 Lahontan cutthroat and brook trout on the Colville reservation, yellow perch on the Kalispel
3 reservation, and yellow perch and walleye in Lake Roosevelt. As noted above in the findings for
4 Section 10.1, the inconsistencies at this point are only potential; it has not been demonstrated that
5 implementing measures in an attempt to achieve these objectives will have a deleterious effect on
6 native resident fish (or will by themselves justify flow regimes that adversely affect anadromous fish
7 rebuilding efforts, as is the concern of the Columbia River Inter-Tribal Fish Commission and others).
8 What can be said now is that the primary fish managers and co-managers of these areas have made
9 a plausible biological judgment, based on their evaluation of what the existing habitat can support,
10 that these objectives for introduced fish can be achieved in these areas while also achieving the
11 objectives in this same Section 10.8B for increased production of weak native populations. The
12 Council accepts these judgments, while recognizing their inconclusive nature and scientific
13 uncertainty. The Council expects that these issues will be addressed by the fish managers as they
14 develop these measures into projects for funding in the implementation planning process and as they
15 monitor and evaluate measures that are implemented. The Council also expects that the fish
16 managers will implement these measures consistent with the priorities stated in Section 10.1B,
17 analyzed in the findings above, in which the Council concluded that resident fish substitution should
18 not undermine native fish rebuilding efforts, and vice versa.

21
22 **Program Section(s):** 10.8B.? (resident fish substitution/Bonneville funding)

23 Source: Spokane Tribe

24 Recommendation No.: 95-2/0024

25
26 **Recommendation:** The Spokane Tribe recommended adding to Section 10.8B.1 that
27 Bonneville will fund resident fish substitution activities above Chief Joseph "as a high priority."

28
29 **Draft:** Incorporated into the UCUT Tribes' comprehensive revision of Sections 10.8A
30 and 10.8B (Recommendation No. 95-2/0070, discussed above), as part of the policy revision of
31 Section 10.8A and as a revised Section 10.8B.16.

32
33 **Comment:** See the comments above on the UCUT Tribes' comprehensive revision of
34 Section 10.8B.

35
36 **Findings:** Adopted in the final amendments as part of the Section 10.1B statement of
37 policies for the resident fish program. See the findings above for that section and for the UCUT
38 Tribes' recommendation for a comprehensive revision of Section 10.8B.

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41
42 **Program Section(s):** 10.8B.3 (resident fish substitution above Chief
43 Joseph/Spokane Tribe/kokanee hatchery well)

1 Source: Spokane Tribe
2 Recommendation No.: 95-2/0073

3
4 **Recommendation:** Recommended as an addition to Section 10.8B.5 of the 1994
5 program: “Bonneville shall fund the construction of a new well, capable of producing 2.5-3.0 cfs of
6 additional flow, for the Spokane Tribal Kokanee hatchery in FY 95.”

7
8 **Draft:** Incorporated into the UCUT Tribes’ comprehensive revision of Section 10.8B
9 (Recommendation No. 95-2/0070, discussed above), not as a revision to Section 10.8B.5 (which
10 was slightly revised and renumbered as proposed Section 10.8B.17), but instead as a new
11 proposed Section 10.8B.18.

12
13 **Comment:** See the comments above on the UCUT Tribes’ comprehensive revision of
14 Section 10.8B.

15
16 **Findings:** Adopted in the final amendments at Section 10.8B.3. See the findings above on
17 the UCUT Tribes’ recommendation for a comprehensive revision of Section 10.8B.

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21 **Program Section(s):** 10.8B.4 (resident fish substitution above Chief
22 Joseph/Spokane Tribe/kokanee hatcheries/net pens)

23 Source: Spokane Tribe
24 Recommendation No.: 95-2/0072

25
26 **Recommendation:** Recommended as an addition to Section 10.8B.5 of the 1994
27 program: “Bonneville shall fund the Spokane Tribe, Colville Tribe and Washington Department of
28 Wildlife to construct and operate 20 net pens for rearing kokanee salmon (25,000 fish/pen) to post-
29 smolt size in Lake Roosevelt. This shall include 16 net pens, dock and anchoring system at
30 Sherman Creek and four net pens to be incorporated at one or more of the rainbow trout net pen
31 sites at Hall Creek, Hunters, Seven Bays and Keller. Bonneville shall conduct an environmental
32 assessment for the project in 1995, with construction in 1996.”

33
34 **Draft:** Incorporated into the UCUT Tribes’ comprehensive revision of Section 10.8B
35 (Recommendation No. 95-2/0070, discussed above), not as a revision to Section 10.8B.5 (which
36 was slightly revised and renumbered as proposed Section 10.8B.17), but instead as a new
37 proposed Section 10.8B.19.

38
39 **Comment:** See the comments above on the UCUT Tribes’ comprehensive revision of
40 Section 10.8B.

41
42 **Findings:** Adopted in the final amendments at Section 10.8B.4. See the findings above on
43 the UCUT Tribes’ recommendation for a comprehensive revision of Section 10.8B.

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Program Section(s): **10.8B.5 (resident fish substitution above Chief Joseph/Lake Roosevelt monitoring/biological rule curve)**

Source: Spokane Tribe
Recommendation No.: 95-2/0024, /0048

Recommendation: Section 10.8B.7 of the 1994 program called for the Spokane Tribe to monitor the effectiveness of kokanee and trout measures in Sections 10.8B.5 and 10.8B.6. In Recommendation No. 95-2/0004, the Spokane Tribe recommended replacing this language with a more extensive program to "monitor and evaluate the Lake Roosevelt biota"; assess the effectiveness of the measures in Sections 10.8B.5 and 10.8B.6; determine the impacts of reservoir operations on kokanee, rainbow and walleye fisheries; and develop a biological rule curve for the Lake Roosevelt. The recommendation then lists a detailed set of evaluations and actions that would be part of this program. Recommendation No. 95-2/0048 modified the earlier recommendation by adding one more item to the list.

Draft: Incorporated into the UCUT Tribes' comprehensive revision of Section 10.8B (Recommendation No. 95-2/0070, discussed above), as proposed Section 10.8B.21.

Comment: See the comments above on the UCUT Tribes' comprehensive revision of Section 10.8B.

Findings: Adopted in the final amendments at Section 10.8B.5, with modifications. See the findings above on the UCUT Tribes' recommendation for a comprehensive revision of Section 10.8B.

Program Section(s): **10.8B.6 (resident fish substitution above Chief Joseph/Colville Tribes/trout hatchery)**

Source: Colville Confederated Tribes
Recommendation No.: 95-2/0067

Recommendation: Section 10.8B.2 of the 1994 program called on the Colville Confederated Tribes, with Bonneville funding, to operate and maintain a resident trout hatchery on the reservation. The Colville Tribes recommended adding to this section that the Colville Tribes will also "monitor and evaluate" hatchery operations "in an effort to satisfy the biological objectives detailed in the Council's Program (Section 10) or those as amended on an annual basis."

Draft: Incorporated into the UCUT Tribes' comprehensive revision of Section 10.8B (Recommendation No. 95-2/0070, discussed above), as proposed Section 10.8B.22.

1 **Recommendation:** Section 10.8B.6 of the 1994 program called for the Spokane Tribe to
2 operate and maintain pilot projects for improving habitat and passage into and out of Lake
3 Roosevelt tributary streams for rainbow trout. The Colville Confederated Tribes recommended that
4 the measure be moved and/or the implementor label changed to reflect that the Colville Tribes are
5 actually the implementor.

6
7 **Draft:** Incorporated into the UCUT Tribes' comprehensive revision of Section 10.8B
8 (Recommendation No. 95-2/0070, discussed above), as proposed Section 10.8B.25.

9
10 **Comment:** See the comments above on the UCUT Tribes' comprehensive revision of
11 Section 10.8B.

12
13 **Findings:** Adopted in the final amendments at Section 10.8B.9. See the findings above on
14 the UCUT Tribes' recommendation for a comprehensive revision of Section 10.8B.

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18 **Program Section(s):** **New 10.8B.13 (resident fish substitution above Chief**
19 **Joseph/Kalispel Tribe/yellow perch)**

20 Source: Kalispel Tribe
21 Recommendation No.: 95-2/0080

22
23 **Recommendation:** The Kalispel Tribe recommended a new measure added to the
24 resident fish section for the Tribe, calling on the Tribe to design, construct, and maintain for two
25 years a yellow perch aquaculture facility on the reservation beginning in 1996.

26
27 **Draft:** Incorporated into the UCUT Tribes' comprehensive revision of Section 10.8B
28 (Recommendation No. 95-2/0070, discussed above), as proposed Section 10.8B.29.

29
30 **Comment:** See the comments above on the UCUT Tribes' comprehensive revision of
31 Section 10.8B.

32
33 **Findings:** Adopted in the final amendments at Section 10.8B.13. See the findings above
34 on the UCUT Tribes' recommendation for a comprehensive revision of Section 10.8B.

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38 **Program Section(s):** **10.8B.14 (resident fish substitution above Chief**
39 **Joseph/Kalispel Tribe/bull trout)**

40 Source: Kalispel Tribe
41 Recommendation No.: 95-2/0007

1 sensitive wetland and upland areas) for protection of fisheries habitat.” And, Bonneville is to fund
2 “an educational/outreach program for private landowners and the general public within the Coeur
3 d’Alene Reservation to develop a ‘holistic’ watershed protection process.” Bonneville is to fund
4 “the development of an interim fishery for tribal and non-tribal members of the Reservation through
5 construction, operation and maintenance of ‘trout ponds.’” And finally, Bonneville is to fund “the
6 design, construction, and operation and maintenance of a trout production facility” on the
7 reservation.
8

9 The second recommendation added one sentence to the existing Section 10.8B.4, stating
10 that Bonneville is to fund “the construction, operation and maintenance of four trout ponds on the
11 Coeur d’Alene Indian Reservation.”
12

13 Both of the recommendations then added the same second paragraph to Section 10.8B.4,
14 stating that “Bonneville shall fund the above measures according to the following schedule:”
15

16 1995: Bonneville is to “fund master plan and environmental assessment of the program,
17 fund habitat demonstration projects on Lake and Benewah creeks and fund an educational outreach
18 program.”
19

20 1996: Bonneville is to “fund completion of master planning process and environmental
21 assessment of the project, fund habitat improvement projects on Lake and Benewah Creeks, fund
22 an educational outreach program, fund advanced designs of hatchery and trout ponds and purchase
23 land for hatchery and trout ponds.”
24

25 1997: Bonneville is to “fund construction and operation of trout ponds and wells, fund
26 construction of hatchery and well, fund habitat improvement projects on Lake, Benewah and Evans
27 Creeks [and] fund educational outreach program.”
28

29 1998: Bonneville is to “fund hatchery and trout pond operation and maintenance, weir
30 trapping of spawners, habitat improvements on Evans and Alder Creeks, and educational outreach
31 program.”
32

33 1999: Bonneville is to “fund habitat improvement projects, fund O & M for hatchery, trout
34 ponds, weir trapping of spawners, and habitat improvement projects.”
35

36 Finally, “[f]rom 2000-2004 [Bonneville is to] fund M & E for restoration projects and for
37 an indefinite period, fund hatchery, trout pond and habitat improvement operation and
38 maintenance.”
39

40 **Draft:** Incorporated into the UCUT Tribes’ comprehensive revision of Section 10.8B
41 (Recommendation No. 95-2/0070, discussed above), as proposed Section 10.8B.36.
42

1 **Comment:** See the comments above on the UCUT Tribes' comprehensive revision of
2 Section 10.8B.

3
4 **Findings:** Adopted in the final amendments at Section 10.8B.20, with minor editorial
5 modifications. See the findings above on the UCUT Tribes' recommendation for a comprehensive
6 revision of Section 10.8B.

7
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9
10 **Program Section(s):** **10.8B.21 (resident fish substitution above Chief**
11 **Joseph/Coeur d'Alene Tribe/land purchase)**

12 Source: Coeur d'Alene Tribe
13 Recommendation No.: 95-2/0021
14

15 **Recommendation:** The Coeur d'Alene Tribe recommended adding a specific project to
16 Section 10.8B (and to Section 11.3F as well, to recognize the wildlife benefits of the project):
17 Bonneville is to fund the Tribe in fiscal year 1996 to conduct "a NEPA analysis, a habitat analysis
18 and a land value appraisal of a 2100 acre wetland/riparian and associated upland parcel in the Lake
19 Creek drainage and Windy Bay area of Lake Coeur d'Alene." Bonneville will purchase a land
20 option and transfer title to the Bureau of Indian Affairs to be put into trust for the Tribe. In fiscal
21 year 1997 Bonneville is to complete the land purchase, and fund the Tribe for habitat enhancement
22 activities and for a long-term operation and maintenance and monitoring and evaluation program.
23 This parcel is to be credited for 250 acres of wildlife habitat losses due to Albeni Falls Dam, see
24 Table 11-4, and as a resident fish substitution for salmon losses due to Grand Coulee Dam.
25

26 **Draft:** Incorporated into the UCUT Tribes' comprehensive revision of Section 10.8B
27 (Recommendation No. 95-2/0070, discussed above), as proposed Section 10.8B.37. The Council
28 did not repeat the measure at Section 11.3F as recommended, with the understanding that the
29 redundancy was not necessary (and could be confusing) to recognize that the implementation of this
30 project would have wildlife benefits.
31

32 **Comment:** See the comments above on the UCUT Tribes' comprehensive revision of
33 Section 10.8B.

34
35 **Findings:** Adopted in the final amendments at Section 10.8B.21. See the findings above
36 on the UCUT Tribes' recommendation for a comprehensive revision of Section 10.8B.
37
38
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40 **Program Section(s):** **10.8B.24 (resident fish substitution above Chief Joseph/Ford**
41 **Hatchery)**

42 Source: Washington Department of Fish and Wildlife
43 Recommendation No.: 95-2/0055

1
2 **Recommendation:** The Washington Department of Fish and Wildlife recommended a
3 new measure for Section 10.8B that calls on WDFW to fund engineering, design and
4 implementation of work required to improve the water supply to Ford Hatchery and bring the
5 facility to full production, and to fund the cost of an additional 35,000 pounds of trout production
6 annually for planting in the upper Columbia basin waters.

7
8 **Draft:** Incorporated into the UCUT Tribes' comprehensive revision of Section 10.8B
9 (Recommendation No. 95-2/0070, discussed above), as proposed Section 10.8B.44.

10
11 **Comment:** See the comments above on the UCUT Tribes' comprehensive revision of
12 Section 10.8B.

13
14 **Findings:** Adopted in the final amendments at Section 10.8B.24. See the findings above
15 on the UCUT Tribes' recommendation for a comprehensive revision of Section 10.8B.

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19 **Program Section(s):** **10.8B.25 (resident fish substitution above Chief**
20 **Joseph/Phalon Lake)**

21 Source: Washington Department of Fish and Wildlife
22 Recommendation No.: 95-2/0054

23
24 **Recommendation:** The Washington Department of Fish and Wildlife recommended a
25 new measure for Section 10.8B that calls on WDFW to fund engineering, design, construction,
26 operation and maintenance of improvements to the Phalon Lake wild rainbow trout fish trapping
27 facility, to allow for the continuation and possible expansion of the Kettle River wild rainbow
28 stocking program.

29
30 **Draft:** Included in the draft rule as proposed Section 10.8B.45, as an addition to the
31 UCUT Tribes' comprehensive revision of Section 10.8B (Recommendation No. 95-2/0070,
32 discussed above). The UCUT Tribes' comprehensive rewrite of Section 10.8B did not include this
33 recommendation from WDFW. The Council incorporated the WDFW provision into the
34 comprehensive revision in deciding on the draft rule.

35
36 **Comment:** See the comments above on the UCUT Tribes' comprehensive revision of
37 Section 10.8B.

38
39 **Findings:** Adopted in the final amendments at Section 10.8B.25. See the findings above
40 on the UCUT Tribes' recommendation for a comprehensive revision of Section 10.8B.

1 **Program Section(s):** **10.8B.26 (resident fish substitution above Chief Joseph/stock**
2 **assessment)**

3 Source: Spokane Tribe, Kalispel Tribe, Confederated Colville Tribes, Washington
4 Department of Fish and Wildlife

5 Recommendation No.: 95-2/0085
6

7 **Recommendation:** These entities together recommended adding a new provision to
8 Section 10.8B calling on Bonneville to fund a cooperative three-phase demonstration project among
9 the Confederated Colville Tribes, Kalispel Tribe, Spokane Tribe, and the Washington Department
10 of Fish and Wildlife to assess the stock status of resident fish species and associated habitats in the
11 areas above Chief Joseph and Grand Coulee dams.
12

13 **Draft:** The UCUT Tribes' comprehensive revision of Section 10.8B (Recommendation
14 No. 95-2/0070, discussed above), included this recommendation as a proposed Section 10.8B.45.
15 The Council included this recommendation in the draft rule as well, but as proposed Section
16 10.8B.46, because the Council included WDFW's Phalon Lake facility recommendation (discussed
17 above) as a proposed Section 10.8B.45.
18

19 **Comment:** See the comments above on the UCUT Tribes' comprehensive revision of
20 Section 10.8B.
21

22 **Findings:** Adopted in the final amendments at Section 10.8B.26. See the findings above
23 on the UCUT Tribes' recommendation for a comprehensive revision of Section 10.8B.
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27 **Program Section(s):** **10.8B.?(resident fish substitution above Chief Joseph/daily**
28 **fresh chinook)**

29 Source: Upper Columbia United Tribes

30 Recommendation No.: 95-2/0081
31

32 **Recommendation:** The UCUT Tribes recommend a new fish substitution measure calling
33 on Bonneville to fund "as highest priority: provide each enrolled member of the Kalispel Tribe,
34 Kootenai Tribe, Coeur d'Alene Tribe, and Spokane Tribe one pound of fresh chinook per day or
35 the financial equivalent therefore, annually, in perpetuity."
36

37 **Draft:** Not included in the draft rule.
38

39 **Comment:** The Kalispel Tribe commented that the Council needed to more closely
40 consider this recommendation as an appropriate mitigation measure for lost anadromous fish.
41 Section 4(h) of the Act requires the federal government, through the Council and Bonneville, to
42 mitigate, restore and enhance fish and wildlife resources affected by hydropower. The UCUT
43 Tribes lost an annual harvest of over 7.8 million pounds of anadromous fish, a loss that has never

1 been mitigated. The value of the loss “equates to about \$300 million with annual interest payments
2 of nearly \$23 million,” compared to current mitigation funding at about \$5.1 million annually. Thus it
3 is appropriate and relevant to the program that the UCUT Tribes further “suggested fresh frozen
4 salmon as a partial substitute for these losses.” (174, 194)
5

6 **Finding:** The Council did not to adopt this recommendation into the program, for a
7 technical reason that has nothing to with the intrinsic merit of the idea or the principles and history
8 behind the idea. The recommended measure is not one to protect, mitigate or enhance fish. It is
9 instead a recommendation to compensate (in kind or in money) for society’s failure to protect,
10 mitigate and enhance salmon in this upper Columbia region. The recommendation highlights that the
11 recommending tribes once made salmon central to their lives and culture, that they have been
12 deprived of these fish by the choices of another people, and that current efforts to mitigate and
13 substitute for those losses do not match and can never match the magnitude of the losses. The
14 Council acknowledges the principle and purpose underlying this recommendation. The Council
15 cannot adopt the recommendation itself, as it is inconsistent with the Council’s specific authority
16 under the Act to adopt measures to protect, mitigate and enhance fish and wildlife, including related
17 spawning grounds and habitat, affected by the development and the operation and management of
18 the Columbia River electric power facilities, 16 U.S.C. §839b(h)(1)(A), (5), (7)(A). The Council
19 has never understood the Act to allow the Council to call for and confer direct benefits to individuals
20 and tribes as compensation for losses, but only to call for actions in an attempt to increase the
21 numbers and viability of live fish populations in the river.
22
23
24

25 **Program Section(s):** **10.8C (resident fish substitution above Hells Canyon/Owyhee**
26 **Basin)**

27 Source: Oregon Department of Fish and Wildlife

28 Recommendation No.: 95-2/0050
29

30 **Recommendation:** Section 10.8C.1 of the 1994 program called on the Shoshone-Paiute
31 Tribes to stock rainbow trout on the Duck Valley reservation; Section 10.8C.2 called on the Tribes
32 to review the reservation surface and ground water suitability for resident fish production facilities.
33 Section 10.8B.7 called on Bonneville to fund these and other projects for the Tribes. The Oregon
34 Department of Fish and Wildlife had concerns about the genetic impacts of the Tribes’ trout
35 production program on redband trout downstream in the Owyhee basin. Thus ODFW
36 recommended an addition to Section 10.8C calling for two studies: an evaluation of various aspects
37 of the trout release to minimize downstream movement of these fish into areas inhabited by the
38 redband trout; and a genetic sampling program for the redband trout. Based on these studies, the
39 Tribes are to develop and implement strategies to protect wild redband trout populations from
40 impacts caused by the hatchery program. ODFW also recommended adding language that “[a]ny
41 future facility located in the Owyhee drainage shall be designed and operated to prevent fish and
42 associated diseases from escaping the hatchery and impacting native fish.”
43

1 **Draft:** Included in the draft rule, as revisions to Sections 10.8C.2 and 10.8C.7.
2

3 **Comment:** The U.S. Fish and Wildlife Service commented that ODFW's concerns for the
4 impact on native redband trout are unfounded. The stocking program in question is operated to
5 protect the genetic and biological integrity of native trout. The two reservoirs have been stocked
6 with rainbow trout since 1956 (in one case) and 1970 (in the other). Neither reservoir is on the
7 Owyhee River. Water is diverted from the river to the reservoirs by canal; the canals are screened
8 with well-maintained rotary drum screens. The outlet of one reservoir is also screened; the other is
9 not screened, but outflow from that reservoir is a rare occurrence and would only occur in the
10 spring of high water years. Fish are stocked in April or May, and any fish that did escape and made
11 it to the river probably would not survive summer water temperatures. Rainbows survive in the
12 reservoir only because they find cooler temperatures in the deeper areas. "The likelihood that a
13 domesticated rainbow could survive the high temperatures to displace or consume a redband in
14 extremely low, as is the chance of spawning with a redband the following spring." In other words,
15 the risk of the hatchery trout having an impact on any native species is zero because the reservoirs
16 affected by the trout planting are essentially closed systems. ODFW also failed to recognize that
17 Wildhorse Reservoir is located on the Owyhee, has regular releases of water to supply irrigation
18 needs on the reservation, and is annually stocked by the Nevada Division of Wildlife with rainbows
19 and, historically, other game fish. Finally, FWS noted that ODFW participated in fisheries
20 management discussions with the other management entities in the Owyhee River system and agreed
21 upon an objective to manage the reservoirs to protect redband trout, which the FWS and Tribes
22 follow with the reservoirs on the reservation.
23

24 USFWS also discounted ODFW's other concern that any future facility in Owyhee
25 drainage be designed to prevent fish and diseases from escaping the hatchery is also unfounded.
26 There is no likelihood of any new hatcheries because there are no suitable water sources on the
27 reservation. The FWS investigated the possibility of developing such a hatchery when FWS first
28 developed a fishery management program for the reservation. Finding no suitable water, the
29 Service recommended the Tribes obtain a different source of trout to meet their needs. "The Tribe
30 has done this and is currently pursuing a potential lease of a hatchery facility in the Hagerman area, .
31 . . in cooperation with the Shoshone-Bannock Tribes." (140, 152, 204).
32

33 In public hearing testimony, the Shoshone-Paiute Tribes objected to the ODFW
34 recommendations, with an explanation essentially repeating the comments from the USFWS
35 summarized above. (174)
36

37 The Idaho Department of Fish and Game commented, with regard to the portion of the
38 proposed amendment to Section 10.8C.2 calling for a genetic sampling program for redband trout,
39 that genetic sampling of redband trout has been carried out in the past by the U.S. Bureau of Land
40 Management and IDFG. There is no need to conduct additional sampling in the basin to identify
41 redband stocks. IDFG did agree that strategies to prevent escapement of hatchery produced trout
42 or other impacts to wild production from a hatchery product should be developed before
43 implementation of the hatchery program. The majority of the Owyhee watershed lies outside of any

1 reservation jurisdiction, and any efforts to collect or sample fish outside of the reservation
2 boundaries would require permits from IDFG. (227)

3
4 The Oregon Department of Fish and Wildlife remained concerned about the possible influx
5 of hatchery rainbow stock from releases in the upper basin as part of the mitigation program on the
6 Duck Valley Reservation. “The proposed amendment language is intended to assure the same
7 safeguards as would be in place if the hatchery programs were within Oregon.” ODFW added that
8 the USFWS should be funded to assist the Tribes in evaluating the impacts of this stocking on native
9 redband trout downstream of the reservation, in consultation with the Nevada Department of
10 Wildlife, IDFG and ODFW. (142, 234) In a consultation with the Oregon Council members,
11 ODFW stated that it was willing to agree to modifications of its recommendation to focus on the
12 genetic sampling program, the results of which would be the basis for the development of strategies
13 if necessary to protect redband trout populations from potential impacts caused by the hatchery
14 program.

15
16 Oregon Trout supported ODFW’s recommendation for Section 10.8C.2, not specifically
17 out of concern for the potential impact on redband trout of the Shoshone-Paiute Tribes’ hatchery
18 production efforts, but because of a general assessment that the status and situation of native
19 redband trout deserves increased consideration and study. (209)

20
21 In a comment directed at Section 10.8C.7 among other sections, Bonneville commented
22 that at the request of regional resource managers and the Council, Bonneville has in the past funded
23 enhancement measures above the Hells Canyon Complex as off-site mitigation for impacts caused
24 to anadromous fish by the FCRPS. Bonneville incorporated by reference its position as stated in its
25 comments on the Phase IV amendments: losses of anadromous fish above Hells Canyon Dam,
26 requiring resident fish substitution, were not caused by the FCRPS. Bonneville is already funding
27 the Lower Snake River Compensation Plan, the mitigation Congress specified for the construction
28 of four Corps projects on the lower Snake River. Additional mitigation for those projects is
29 unnecessary at this time. However, when funding is available and a resident fish substitution
30 measure is appropriately ranked for implementation, Bonneville will continue to consider funding
31 such measures on a case-by-case basis. (229)

32
33 **Findings:** Based on the comments from the Shoshone-Paiute Tribes, the USFWS and
34 ODFW, the Council modified the recommendation. Given the differing perspectives of the fish
35 managers, the Council was not persuaded that the available information demonstrated that a
36 problem exists with the Duck Valley Reservation trout production program to warrant all of the
37 changes originally recommended. What is warranted is further evaluation and caution.

38
39 First, the Council did not adopt the recommended addition to Section 10.8C.7. The
40 Council is persuaded that there is at present no likelihood of further hatchery development in this
41 drainage.

1 Second, the Council decided not to adopt the language originally recommended for Section
2 10.8C.2 that called for a specific evaluation of the release of these trout into the reservoirs to
3 minimize downstream movement. The Council did adopt the language calling for the Shoshone
4 Paiute Tribe to conduct a genetic sampling program of the redband trout in the Owyhee basin and,
5 depending on the results of the study, for the development of strategies to protect wild redband
6 trout populations from any impacts identified from the hatchery program. In response to the
7 comments from the Idaho Department of Fish and Game, the Council expects the Shoshone-Paiute
8 Tribes to consult with IDFG about the design and implementation of the genetic sampling program.

9
10 The Council concludes that what it adopted is more effective than the recommended
11 language in protecting, mitigating and enhancing fish and wildlife, 16 U.S.C. §839b(h)(7)(C), and
12 complements better the activities of all the area's fish managers, 16 U.S.C. §839b(h)(6)(A), (7)(B).

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1 **SECTION 11: WILDLIFE**
2
3

4 **Program Section(s): 11 (introduction)**

5 Source: Idaho Department of Fish and Game

6 Recommendation No.: 95-2/0044
7

8 **Recommendation:** In the cover letter accompanying a set of wildlife recommendations,
9 the Idaho Department of Fish and Game recommended adding language to the introductory
10 narrative to Section 11. The third paragraph of that introduction has stated that reservoir storage
11 created as well as destroyed some wildlife areas, but that species in these areas have not sustained
12 initial population increases. IDFG recommended adding as that "many acres of native shrub and
13 grasslands providing habitat for a variety of native wildlife species were replaced."
14

15 **Draft:** Included in the draft rule, but with an apparently inadvertent change in the from the
16 word "replaced" to the word "displaced."
17

18 **Comment:** The UCUT Tribes commented that habitat is never "displaced," it is only lost
19 and/or "replaced" by a different habitat type, which was the original language recommended. (155)
20

21 **Findings:** The Council adopted the recommendation, revising the draft rule language to use
22 the recommended term "replaced."
23
24
25

26 **Program Section(s): New 11.2? (preclude counter-productive activities)**

27 Source: Columbia River Alliance

28 Recommendation No.: 95-2/0088
29

30 **Recommendation:** The Columbia River Alliance recommended adding a new provision to
31 the wildlife policies section of the program that mirrored what the Alliance recommended for the
32 resident fish section of the program, as follows:
33

34 "Federal power system operators should be precluded from taking management actions that
35 will negatively affect major and beneficial wildlife habitat and populations, as a direct result of
36 proposed system measures for salmon or steelhead recovery and enhancement. These actions
37 concern all federal project reservoirs on the Snake-Columbia River system relative to operating
38 conditions prior to the Endangered Species Act listing of weak Snake River chinook and sockeye
39 runs (1990 base period).
40

41 "Management actions affecting major and beneficial wildlife habitat and populations include
42 actions to protect, enhance, or mitigate for anadromous fish species. Federal resource management
43 actions for Snake-Columbia River salmon stocks should not adversely affect resident fish [wildlife?]

1 populations, or force major and beneficial wildlife resources to be traded-off for anadromous fish
2 runs.

3
4 "Negative actions would include federal hydroelectric power system reservoir drawdowns,
5 or flow enhancement-related measures that would adversely affect major and beneficial resident fish
6 [wildlife?] populations."

7
8 **Draft:** Not included in the draft rule.

9
10 **Comment:** Public Utility District No. 1 of Okanogan County stated that it agreed with the
11 views and comments of the Columbia River Alliance in this rulemaking. (222)

12
13 The Benton County PUD, Kennewick, Washington, submitted a comment that repeated the
14 first two paragraphs of the recommendation. (244)

15
16 As part of comments aimed primarily at opposing the proposed John Day drawdown,
17 the Oregon Water Coalition, Hermiston, Oregon, commented that if the dams truly are a major
18 cause of the loss of the anadromous fishery, they are also "the major cause of the growth of the
19 resident fish and wildlife" as well as the human economy and population of the region. "The
20 Columbia River in its present mode is beneficial to an increasing resident fish and wildlife
21 populations," which has important implications for recreation, tourism, transportation and local
22 economies. The Council should adopt only those fish and wildlife measures that add benefits to
23 this system "without adverse impact to what has been beneficial to the majority of species,
24 including humans." (203)

25
26 **Findings:** The Council rejected this recommendation as less effective than what has been
27 adopted in ensuring the protection, mitigation and enhancement of anadromous fish, resident fish and
28 wildlife, 16 U.S.C. §839b(h)(7)(C), and because it does not complement the activities of the
29 region's wildlife agencies and tribes, 16 U.S.C. §839b(h)(6)(A), (7)(B). The Council is charged
30 with finding a balance between the needs of fish and wildlife and regional power. To the extent that
31 efforts to restore depleted salmon runs have the potential to adversely affect wildlife communities,
32 the Council must also find the balance between anadromous fish and wildlife and seek to protect,
33 mitigate and enhance both. This has been one of the aims of the Council, with the assistance and
34 recommendations of all region's wildlife managers, in this rulemaking process and in the anadromous
35 fish program amendments in December 1994. Thus, for example, the Council called in December
36 for adoption of the integrated rule curves developed by the fish and wildlife managers in Montana
37 for the operation of Libby and Hungry Horse reservoirs, intended to protect resident fish and
38 wildlife communities and habitat from too-deep reservoir drafts for anadromous fish flows. For the
39 same reason, the Council has adopted, in this rulemaking, minimum reservoir elevations and water
40 retention times at Grand Coulee Dam and has called for the development of biologically based rule
41 curves at Grand Coulee and Dworshak dams and for monitoring and evaluation programs to
42 determine what impacts salmon flows are having on resident fish and wildlife populations and
43 habitats under these and other operating criteria. Further, the Council has revised the measures in

1 Section 5 concerning the Fish Operations Executive Committee and the Fish Passage Center to
2 incorporate consideration of the needs of resident fish and wildlife and upriver storage reservoir
3 operating constraints into decisions on river operations. The Council also seeks the refinement and
4 quick adoption of the proposed Wildlife Plan (Section 11.3, below), calling for a wildlife loss
5 assessment and mitigation process related to project operations, no matter what the purpose is for
6 the operations (i.e., for power or for anadromous fish mitigation).

7
8 The Council adopted these program amendments in response to the concerns, comments
9 and recommendations of the fish and wildlife managers. The wildlife managers have not called for a
10 generic standard of “no adverse impact.” Such a standard would have little meaning, as it would
11 beg the question of what impacts are occurring and what steps need to be taken to avoid adverse
12 impacts, necessitating the variety of adaptive management measures called for in the program
13 anyway. Such a standard instead could simply paralyze decisionmaking in search of an impossible
14 absolute. The wildlife managers have been working with the Council on an active and varied
15 program of specific measures in an attempt to ensure that wildlife populations and habitats are not
16 undermined by anadromous fish measures. The Council has given due weight to the
17 recommendations of the wildlife managers and deems them more effective in protecting, mitigating
18 and enhancing both types of fish than the Alliance recommendation.

19
20 The recommendation also presents problems because it calls for no adverse impact on
21 wildlife populations and habitat from anadromous fish flows, while it is silent on and thus presumably
22 approving of a balancing of adverse impacts from power operations. Such a standard would be
23 inconsistent, and by itself highlights instead that the Council’s responsibility is to try to balance and
24 coordinate the various aspects of the system, protecting, mitigating and enhancing anadromous fish,
25 resident fish and wildlife, while assuring an adequate, efficient, economical and reliable power
26 supply.

27
28
29
30 **Program Section(s): 11.2A.2 (ratepayer share of funding)**

31 Source: Idaho Department of Fish and Game

32 Recommendation No.: 95-2/0044

33
34 **Recommendation:** In the cover letter accompanying a set of wildlife recommendations,
35 the Idaho Department of Fish and Game noted that it supported the concept in Section 11.2A.2 of
36 allocating wildlife expenditures between power and non-power purposes at Idaho projects, but that
37 Bonneville had made little progress in this area. IDFG recommended Bonneville reduce its annual
38 Treasury payment by the amount of the non-power share of funded wildlife mitigation.

39
40 **Draft:** Not included in the draft rule.

41
42 **Findings:** The recommended measure is not one to protect, mitigate or enhance fish. It is
43 instead a recommendation as to how Bonneville and the federal government might fund whatever

1 portion of each measure in the program addresses adverse impacts from non-power actions. The
2 Council's decision not to adopt this recommendation in no way comments on its merits.

3
4
5
6 **Program Section(s):** **New 11.2A.? (funding levels)**

7 Source: Kalispel Tribe of Indians and Spokane Tribe of Indians

8 Recommendation No.: 95-2/0084

9
10 **Recommendation:** The Kalispel Tribe and the Spokane Tribes recommended a new
11 provision for Section 11.2A stating that beginning in October 1995 Bonneville will fund wildlife
12 measures at a level of 15 percent of its fish and wildlife budget.

13
14 **Draft:** Included as modified in the draft rule in proposed amendments to Section 2.2F.1,
15 as described above.

16
17 **Comment:** Comments on the recommended funding levels are summarized above, at the
18 findings on Section 2.2F.1.

19
20 **Findings:** The Council adopted a budget allocation formula in Section 2.2F.1, not in
21 Section 11. See the findings for Section 2.2F.1.

22
23
24
25 **Program Section(s):** **11.2A.1, 11.2B.1 (allocation of effort)**

26 Source: Shoshone-Bannock Tribes

27 Recommendation No.: 95-2/0025

28
29 **Recommendation:** Existing Section 11.2B.1 calls on various federal agencies and wildlife
30 managers to allocate expenditures by federal agencies to mitigate for wildlife losses attributable to
31 federal hydroprojects. The Shoshone-Bannock Tribes recommended revising the section to call for
32 these entities and "other relevant parties" to allocate expenditures among federal "and non-federal"
33 entities to mitigate for wildlife losses attributable to federal "and non-federal" hydroprojects.

34
35 **Draft:** Not included in the draft rule; this recommendation was included in the draft rule
36 appendix "Other Amendment Recommendations On Which the Council Specifically Invites
37 Comment."

38
39 **Comment:** Bonneville commented that the Council should delete Section 11.2B.1,
40 since the General Counsels of Bonneville, the Department of the Army, the Corps, the
41 Department of Interior, and the Department of Energy, as well as the Administration and
42 Congress, have recently agreed upon and accepted a systemwide allocation of expenditures for
43 the purpose of implementing the Act. (229)

1
2 In a comment also directed at the existing language in Section 11.2B.1, and not at the
3 recommended change, the Bureau of Reclamation stated that Section 4(h)(10)(c) of the Act
4 “authorizes Bonneville to allocate Bonneville’s mitigation expenditures among the various
5 projects and project purposes, but it does not authorize Bonneville “to allocate ‘implementation
6 costs’” as stated in the narrative introduction to Section 11. “There is a significant difference
7 between allocation of BPA’s ‘expenditures’ and allocation of ‘mitigation costs. Further, nothing
8 in the Act requires allocation of mitigation expenditures to other Federal agencies as included in
9 [Section] 11.2B.1. In any event, this subsection only applies to projects included in the
10 FCRPS, which does not include any Reclamation projects located in the Snake River basin.”
11 (206)

12
13 **Findings:** The Council did not adopt this recommendation, as Section 11.5A of the
14 program already addresses the issue of wildlife mitigation at non-federal hydropower projects. A
15 description of the role and purpose of Section 11.2B.1, and its relationship to Section 11.2A,
16 should explain why this is not the appropriate place in the program for the recommended
17 amendment, and also address the comments of Bonneville and Reclamation: Under Section
18 11.2A.1 of the 1994 program, Bonneville was called upon to consult with federal and non-federal
19 agencies, tribes and others to determine what portion of the wildlife impacts caused by the federal
20 hydropower projects is attributable to the hydropower purpose of those projects. During this
21 rulemaking, Bonneville notified the Council that Bonneville and the federal project operators had
22 allocated responsibility among the federal project purposes (as part of the allocation process under
23 Section 4(h)(10)(C) of the Act) and determined that the systemwide hydropower share of fish and
24 wildlife mitigation, for which ratepayers are responsible, is 72 percent. This is an average for the
25 whole system; the hydropower share at any particular project may be more or less than 72 percent.
26 Accordingly, Section 11.2A.1 has been deleted and an introductory paragraph added to Section
27 11.2A to note that Bonneville's ratepayers are responsible for mitigation of 72 percent of the lost
28 habitat units adopted into the program.

29
30 Section 11.2B.1 then calls on Bonneville, the other federal agencies and the wildlife
31 managers to use the allocation formula determined in Section 11.2A.1 to identify the actual
32 expenditures to be allocated to the various federal entities needed to achieve full mitigation of the
33 losses attributable to the construction and operation of the federal hydroprojects. The Council does
34 not agree with Bonneville that this section should be deleted. Section 11.2B.1 calls for what is the
35 next step in the funding allocation process --the federal agencies are to apply the systemwide
36 percentage allocation and other factors to determine the division of actual mitigation expenditures for
37 the particular mitigation activities in connection with the federal projects. This process will allow the
38 Council and Bonneville to identify precisely the costs that will be borne by the Bonneville
39 ratepayers, and the amount that will have to come from other sources. It is also intended to assure
40 that the federal agencies consult and come to an agreement on funding all the mitigation that needs to
41 occur to mitigate the impacts, rather than funding mitigation in a piecemeal, less effective fashion.
42 The Council modified Section 11.2B.1 to delete the now obsolete reference to Section 11.2A.1, to

1 reflect that the allocation formula has already been developed (the 72 percent allocation of
2 responsibility), which will need to be applied to cost estimates to determine the ratepayer share.
3

4 The Shoshone-Bannock Tribes recommended adding to Section 11.2B.1 that this allocation
5 effort include non-federal projects and non-federal entities. This concept has no place in Section
6 11.2A or 11.2B, which are focused on how to allocate expenditures at federal projects among
7 Bonneville's ratepayers, who are directly responsible only for costs associated with the federally
8 owned and operated projects whose power Bonneville markets, and the other federal agencies.
9 Bonneville's ratepayers are not directly responsible for the costs of mitigation attributable to the
10 wildlife impacts of hydropower projects that are not federally owned and operated, even if they are
11 federally licensed and regulated by FERC. Thus including non-federal projects in the allocation
12 process described in Section 11.2B.1 would not make sense. The Council adopted Section 11.5 in
13 a past rulemaking, calling on FERC to take into account the policies in and the implementation of the
14 other parts of Section 11 when developing license conditions for projects subject to FERC
15 regulation. This may include, where appropriate, determining what share of wildlife impacts to
16 allocate to the hydropower purpose of the projects.
17

18 With regard to Reclamation's comments, Section 11.2B.1 recognizes that Bonneville does
19 not have sole authority to determine how to allocate all mitigation costs among the various projects
20 and project purposes. Both the Power Act and responsible planning suggest that it makes sense to
21 develop a comprehensive plan to mitigate the wildlife impacts from any particular hydropower
22 project, even if that project happens to have multiple purposes, and not try to divide mitigation
23 activities by project purpose. Then the entities involved in operating the project, marketing power
24 from the project, benefiting in various ways from the operations of the project, regulating or
25 mitigating the impacts of the project, etc. must determine and allocate the funding responsibilities of
26 all the responsible entities, within the context of the agreement among the federal agencies that the
27 systemwide hydropower share of fish and wildlife mitigation, for which ratepayers are responsible, is
28 72 percent. Bonneville is not asked to make the allocation of full mitigation expenditures by itself.
29

30 The Council disagrees with Reclamation that Section 11.2B.1 does not apply to any
31 Reclamation projects in the Snake basin. Section 4(h) of the Power Act calls on the Council to
32 develop a program to protect, mitigate and enhance fish and wildlife from the impacts of the
33 "hydroelectric facilities on the Columbia River and its tributaries." Reclamation projects in the
34 Snake basin do produce hydropower, and thus are within the scope of the Council's program.
35 Some of that power is produced by power facilities owned and operated by federal agencies,
36 bringing these projects within the scope of Section 11.2B.1. There is no indication in the Act or its
37 legislative history that Reclamation projects in the Snake basin that produce hydropower were not
38 to be considered part of the basin's hydroelectric facilities for which the Council has an obligation to
39 develop measures to address the impacts on fish and wildlife.
40
41
42

43 **Program Section(s): 11.2D.1 (mitigation principles)**

1 Source: Shoshone-Bannock Tribes
2 Recommendation No.: 95-2/0025
3

4 **Recommendation:** Existing Section 11.2D.1 states a number of principles to guide wildlife
5 mitigation plans and projects. The Shoshone-Bannock Tribes recommended adding one new
6 principle: "Do not mitigate for ongoing poor land management practices on federal lands."
7

8 **Draft:** Not included in the draft rule.
9

10 **Findings:** The Council did not adopt this recommendation, concluding that the
11 recommendation was less effective than what has been adopted in ensuring the protection, mitigation
12 and enhancement of resident fish and wildlife, 16 U.S.C. §839b(h)(7)(C). The definition of
13 "ongoing poor land management practices" is imprecise and unclear and likely to lead to as many
14 disputes as there would be attempts to label particular land management practices as "poor." More
15 important, the Act and the wildlife program do not function to mitigate for poor (or good) land
16 management practices. Instead, the Act and the program are intended to address adverse impacts
17 to wildlife populations and habitat from hydropower development and operations. The principles
18 already stated in Section 11.2D.1 emphasize that these wildlife mitigation plans and projects must
19 protect high quality native or other habitat, help protect or enhance natural ecosystems and species
20 diversity, and complement those activities of the land managers that protect or enhance natural
21 ecosystems and species diversity. Thus the program is designed to function in conjunction with
22 federal, state and local, public and private land management practices that are attempting to provide
23 quality natural habitat and ecosystems in particular response to the adverse affects of hydropower
24 development, not mitigate for land management activities that have resulted in poor habitat quality.
25 Also, Section 4(h)(6)(C) of the Act calls upon the Council to adopt cost effective mitigation
26 measures. If enhancing federally owned habitat is the most cost-effective way to achieve a sound
27 biological objective, the Council cannot rule it out.
28
29
30

31 **Program Section(s): 11.2D.1 (mitigation principles)**

32 Source: Idaho Department of Fish and Game
33 Recommendation No.: 95-2/0044
34

35 **Recommendation:** In the cover letter accompanying a set of wildlife recommendations,
36 the Idaho Department of Fish and Game recommended changing the last mitigation principle, which
37 currently states a preference for using public lands or management agreements on private lands
38 instead of acquiring private lands, to: "Secure land for the permanent, long-term protection of
39 wildlife habitat through easements, agreements, leases, or fee-title purchase from willing participants,
40 or enhancement of public lands."
41

42 **Draft:** Not included in the draft rule.
43

1 one of the target species used in conducting the HEP for the Snake basin. There is no basis for
 2 simply adding in bighorn sheep to the priority list without an evaluation. Moreover, the priority
 3 statements based on the HEP and included in the table refer to the habitat types and not the target
 4 species. To the extent the Tribes believe the HEP for the basin is incomplete, they should
 5 recommend (to the Council or to the wildlife managers) that some sort of supplemental evaluation
 6 occur that considers the possible role of bighorn sheep as a target species. The Council concludes
 7 that using the HEP procedure is a better way to protect, mitigate and enhance wildlife, 16 U.S.C.
 8 §839b(h)(7)(C).

9
10
11
12 **Program Section(s):** 11.3A.1, Table 11-4 (Deadwood Reservoir loss estimate)

13 Source: Idaho Department of Fish and Game

14 Recommendation No.: 95-2/0046

15
16 **Recommendation:** The Idaho Department of Fish and Game recommended adding to
 17 Table 11-4 the following estimated wildlife losses due to hydropower construction:

18
19 Deadwood Reservoir

20		
21	mule deer	-2080 HUs
22	mink	-987 HUs
23	spruce grouse	-1411 HUs
24	yellow warbler	-309 HUs
25	yellow-rumped warbler	-2626 HUs

26
27 **Draft:** Included in the draft rule.

28
29 **Comment:** Bonneville commented that estimated losses for Deadwood should not be
 30 included in Table 11-4 because the project is an irrigation project and not a FCRPS project. If
 31 these are included in the program, they should be a separate table and identified for a different entity
 32 to fund. (229)

33
34 **Findings:** The Council included the loss estimates for Deadwood Reservoir as part of
 35 Table 11-4. In 1989 when the Council first proposed wildlife mitigation for the Deadwood project,
 36 the Council noted that the authorizing legislation and legislative history for Deadwood indicated that
 37 the project was authorized in part for power purposes. In the Phase 4 resident fish and wildlife
 38 rulemaking, Bonneville submitted information indicating that Deadwood and other projects were
 39 built for irrigation, not commercial power generation. The State of Idaho countered with information
 40 indicating that Deadwood Reservoir was designed in part to provide water to generate power at
 41 Black Canyon Dam power plant, clearly part of the FCRPS. See U.S. Department of Interior,
 42 Bureau of Reclamation, Bureau of Reclamation Project Feasibilities and Authorizations, A
 43 Compilation of Findings of Feasibilities and Authorizations for Bureau of Reclamation Projects of

1 the Department of Interior, April 1949. On the basis of the information before the Council, the
2 Council concluded that while the Snake basin projects at issue in that rulemaking were primarily
3 irrigation dams, they have also been authorized for and are used to generate or store water for
4 power. This makes them "power-related facilities within Congress' broad use of the term
5 'hydropower facilities'. It is therefore appropriate to include mitigation measures for these facilities
6 in the Council's program." But the Council also concluded that "ratepayer funding associated with
7 the projects is likely to be small compared to the projects' irrigation purposes" and thus that Bureau
8 of Reclamation funding for the non-federal hydropower share is critical. Phase 4 Response to
9 Comments, December 1993, 79. At least in part on the basis of the Council's decision, Bonneville
10 funded the loss assessment analysis for Deadwood, as part of the loss assessment analysis for the
11 Black Canyon project. Now IDFG recommends adding these loss assessments into the program.
12

13 The Council's view of this situation has not changed since 1993. Bonneville commented
14 again that Deadwood is not a FCRPS project, but provided no new information to support the
15 conclusion, referring instead to Bonneville's Phase 4 comments. The Council remains convinced
16 that Deadwood is a part of FCRPS, as broadly conceived, which justifies including the project's
17 wildlife losses in Table 11-4. The Council also continues to believe that the hydropower share of
18 the expenditures to address these losses will be small.
19
20
21

22 **Program Section(s):** Former 11.3B.1 (Cascade project loss statement)

23 Source: Idaho Department of Fish and Game

24 Recommendation No.: 95-2/0044
25

26 **Recommendation:** Section 11.3B.1 calls on Reclamation to fund a study to develop a
27 loss assessment for the Cascade project. In the cover letter accompanying its set of wildlife
28 recommendations, the Idaho Department of Fish and Game noted that Reclamation has not made
29 any progress on this measure. IDFG made no recommendation, but implied that a specific date for
30 action might prod Reclamation into action.
31

32 **Draft:** The draft rule proposed to revise Section 11.3B.1 to call for the study to be
33 completed by January 1, 1996, or as soon thereafter as is possible.
34

35 **Comment:** The Bureau of Reclamation commented that the power plant at Cascade is
36 owned and operated by the Idaho Power Company and that the power produced is a byproduct of
37 the project's operation of irrigation and flood control. The power plant has had "insignificant, if any,
38 impact on project operations." Thus "Reclamation's authority and obligation to fund a wildlife
39 habitat loss assessment and any resulting mitigation plan for Cascade is not clear." Even in the
40 absence of a mitigation requirement, Reclamation has completed a resource plan for the area and
41 would like to discuss the possibility of including future wetland enhancement projects at the project
42 in the Council's program. If the Council does adopt this recommendation and Reclamation is called
43 upon to fund this loss assessment, Reclamation will need information ("impact factors, dam and

1 reservoir, and funding agreements”) by August to begin the budgeting process for 1998
2 appropriations. (206)

3
4 **Findings:** The Council deleted what was Section 11.3B.1 of the 1994 program. The
5 Council concluded, based on the information from Reclamation, that the Cascade project was not a
6 federal hydropower project, as the hydropower facility at this project is owned and operated by
7 Idaho Power Company under license from the Federal Energy Regulatory Commission. The
8 Council concluded that the wildlife impacts of this project would be best addressed under the
9 FERC process for relicensing under Section 11.5A.1.

10
11
12
13 **Program Section(s):** **Proposed new 11.3B.2 (American Falls project mitigation loss**
14 **assessment)**

15 Source: Shoshone-Bannock Tribes

16 Recommendation No.: 95-2/0025

17 Source: Idaho Department of Fish and Game

18 Recommendation No.: 95-2/0047

19
20 **Recommendation:** The Shoshone-Bannock Tribes and the Idaho Department of Fish and
21 Game recommended adding a provision calling on the Bureau of Reclamation, by June 1995, to
22 fund a study to develop wildlife and wildlife habitat loss statements at the American Falls project, to
23 be submitted for Council review and adoption into Table 11-4.

24
25 **Draft:** Included in the draft rule, as a proposed new Section 11.3B.2. The Council
26 modified the recommendation in two ways: First, the recommendation called for Reclamation to
27 fund the study by June 1995. The Council simply called on Reclamation to fund the study, without
28 specifying a time. Second, IDFG’s version of the recommendation (but not the recommendation
29 from the Tribes) stated that IDFG and the Tribes were to perform the study. The Council’s draft
30 provision simply explained the task to be accomplished, without specifying who is to perform the
31 study.

32
33 **Comment:** The Bureau of Reclamation commented that the power plant at American Falls
34 is owned and operated by Idaho Power Company and that a portion of the operating costs of the
35 dam is allocated to power and is paid by Idaho Power. No power revenues go to Reclamation.
36 Even in the absence of any obligation for mitigation, Reclamation completed a prepared a resource
37 management plan for the project in April 1995, which includes goals, objectives, and actions related
38 to fish and wildlife. “The responsibility and authority for Reclamation to undertake additional wildlife
39 mitigation actions, including the proposed wildlife loss statement, is not clear.” If the Council does
40 adopt this recommendation and Reclamation is called upon to fund this loss assessment,
41 Reclamation will need information (“impact factors, dam and reservoir, and funding agreements”)
42 by August to begin the budgeting process for 1998 appropriations. (206)

1 **Findings:** The Council did not adopt the recommendation. As with the Cascade project,
2 the Council concluded on the basis of Reclamation's information that the American Falls project is
3 not a federal hydropower project, as the hydropower facility at this project is owned and operated
4 by Idaho Power Company under license from the Federal Energy Regulatory Commission. The
5 Council concluded that the wildlife impacts of this project would be best addressed under the
6 FERC process for relicensing under Section 11.5A.1.

7
8
9
10 **Program Section(s):** **11.3B (wildlife mitigation plan)**

11 Recommendation No.: 95-2/0086

12 Source: Washington Department of Fish and Wildlife

13 Recommendation No.: 95-2/0019

14 Source: Confederated Tribes of the Umatilla Indian Reservation

15 Recommendation No.: 95-2/0028

16 Source: Oregon Department of Fish and Wildlife

17 Recommendation No.: 95-2/0031

18 Source: Yakama Indian Nation

19 Recommendation No.: 95-2/0087

20
21 **Recommendation:** These entities recommended that the Council consider for adoption
22 the Draft Wildlife Mitigation Plan developed by the Wildlife Working Group. A copy of the draft
23 plan itself is in the record as No. 95-2/0086. This document, the Wildlife Plan, describes how the
24 existing Loss Assessments will be standardized and completed in a way that addresses the different
25 methods used by different states and meets the goals outlined by the Northwest Power Act and the
26 Council's Wildlife Program. The Wildlife Plan does not call for the redoing or starting over on the
27 original Loss Assessments. Instead, the Wildlife Plan is meant to be a continuation of existing
28 processes outlined in the Council's Fish and Wildlife Program. The Wildlife Plan describes how the
29 original Loss Assessments will be standardized, how impacts caused by the operation of the
30 hydroelectric dams will be assessed, and how credit gained by existing wildlife mitigation will be
31 integrated in a manner consistent between hydroprojects. The Wildlife Plan defines goals and
32 objectives, and describes methodologies for proceeding with the Wildlife Program. The Wildlife
33 Plan would be completed in phases. Goals, objectives, and methods for the first two phases are
34 described in this Wildlife Plan. Phase I would standardize the past and future inundation
35 (construction) impacts documented in the original Loss Assessments. Phase II would assess past
36 and future operation impacts within a defined study area. The Plan addresses the issue of crediting
37 for past and future mitigation.

38
39 **Draft:** Included in the draft rule.

40
41 **Comment:** In a recommendation that arrived at the Council too late for the
42 recommendations period, and thus has been treated as a comment, the Confederated Salish and
43 Kootenai Tribes urged the Council to consider adopting the Wildlife Plan. (90)

1
2 The Nez Perce Tribe stated that the Draft Wildlife Work Plan “proposals to further refine
3 the Wildlife Mitigation Program are sound.” While the Tribe supported the proposal, they
4 questioned why the wildlife portion of the program is being treated differently than resident and
5 anadromous fish and expressed concern over committing so much of the wildlife budget to the loss
6 assessment process and not to projects. Yet while the proposal would cost between \$1 and \$2
7 million dollars to fund, it is “technically sound and would make the wildlife mitigation portion of the
8 [Program] better founded technically than the anadromous and resident fish portions of the
9 program.” Thus the Tribe recommended that the Council make a one time exception and commit
10 the funding needed to implement this process, but do it as a non-discretionary portion of the
11 Bonneville budget. (213)
12

13 The UCUT Tribes commented that the draft Wildlife Plan’s loss assessment provisions
14 would have been welcome 10 years ago when loss assessments were first being done, but now the
15 need is for more habitat mitigation and not process. The Council should accept the inundation
16 losses into program, as the acreage flooded is clearly known, or as in Habitat Units as determined
17 by the Habitat Evaluation Procedure Either alternative will get the Council beyond the issue of loss
18 assessments without spending more the limited funds on already completed assessments. The
19 Council should then adopt a scaled-back Wildlife Plan calling for a pilot project “as a test of several
20 objectives including operations.” A Willamette Valley facility is not appropriate, due to the small
21 size of the projects and the lower Columbia location. The pilot project chosen should meet criteria
22 such as being a major storage facility with a free-flowing river below the dam. Only Libby, Hungry
23 Horse and Dworshak meet these criteria and one of them should be the pilot project. (155, 174)
24

25 The Confederated Tribes of the Umatilla Indian Reservation submitted both oral and written
26 comments in support of adoption of the Draft Wildlife Plan. In addition, in what appears to be a
27 response to the first of the concerns raised by the UCUT Tribes noted above, the Umatilla Tribes
28 commented that “[t]he CTUIR and the Wildlife Working Group recommend the Council adopt the
29 losses contained in the 1994 Fish and Wildlife Program as the un-annualized inundation and
30 construction losses for wildlife. These losses will not be further adjusted in this process, but will be
31 standardized in accordance with the definitions adopted in the Wildlife Plan to ensure that they are
32 properly accounted for and will not duplicate the losses that will be identified and attributed to the
33 operation of the hydropower system.” (232)
34

35 The Washington Department of Fish and Wildlife similarly recommended adoption of the
36 Draft Wildlife Plan “as modified, which states mitigation for construction losses should proceed
37 expeditiously and the pilot project will develop the standards for construction and operational loss
38 assessments.” (230)
39

40 The Idaho Department of Fish and Game “supports adopting, with some revision, the
41 Wildlife Plan prepared by the Wildlife Working Group.” Their primary concern is that mitigation
42 projects go forward and that time and funds not be use to rework completed loss assessments.
43 Important components of the plan include the methodology for the development of operational loss

1 assessments; mitigation crediting; development of a comprehensive NEPA document to streamline
2 and coordinate future mitigation activities; and development of a basin-wide standardized monitoring
3 and evaluation program. They suggest that the plan could be improved by clarifying and condensing
4 the text. (227)

5
6 The National Park Service, Coulee Dam Recreation Area, supported the Council's
7 adoption of the Draft Wildlife Mitigation Plan. "This plan more than adequately defines goals and
8 objectives, and describes appropriate methodologies for developing specific objectives and
9 proceeding with the wildlife mitigation program." (228)

10
11 The Corps of Engineers provided three technical comments on the Draft Wildlife Plan.
12 They asked for several word changes and pointed out that the document lacks a strong statement
13 identifying that habitat/cover types are what is being compensated for through this mitigation
14 process. (224)

15
16 Bonneville stated that while it supports individual components of the plan (i.e. conducting
17 operation losses assessments) it cannot endorse the plan in its entirety. Bonneville commented that
18 each component of Draft Wildlife Pan should be considered and ranked in implementation planning
19 prioritization process; costs associated with implementation of certain components are not clear.
20 Bonneville also commented generally that if budget shares do get fixed and remain relatively stable,
21 the benefits of further study on the existing construction/inundation loss assessments is questionable.
22 The program should focus on projects to benefit fish and wildlife and not assessments; if program
23 goals and biological objectives are measurable and achievable, crediting should relate toward
24 progress toward goals and objectives, not historic conditions. Bonneville also opposed the use of
25 annualization, "a major portion of the HEP effort." "Permanent protection and enhancement of
26 wildlife habitat . . . will off-set an equal area of like habitat losses resulting from past hydro
27 construction and inundation. Therefore, annualization is an unnecessary exercise requiring funds that
28 should be used for on-the-ground projects to benefit wildlife directly."

29
30 Bonneville raised several general questions with regard to the plan: 1) Bonneville argued
31 that since the Lower Snake River Compensation was authorized by Congress just four years before
32 passage of the Act, and the LSRCP mitigates for four federal projects, the LSRCP is the best
33 model of how Congress anticipated wildlife mitigation be accomplished. To the extent the Draft
34 Wildlife Plan differs from LSRCP, in crediting, annualization, operation and maintenance funding,
35 and other important plan elements, what is the rationale for departing from LSRCP? 2) Bonneville
36 was concerned that what appeared to be mitigation criteria borrowed from private sector plans may
37 in some instances be inappropriate for Bonneville. 3) Bonneville questioned the process by which
38 the plan was developed, stating that many of the elements of the plan, "such as crediting,
39 annualization; and allocation [of effort to be funded by various federal agencies] address issues that
40 Bonneville should determine as the agency responsible for implementing section 4(h)(10) of the
41 Act." Bonneville suggested that it would be more appropriate for Bonneville to address these issues
42 and seek comments of the Wildlife Working Group. Also, the plan should be clear that Bonneville's
43 role include compliance with NEPA and other relevant statutes, such as the ESA; review the legal

1 adequacy of proposed measures; and develop crediting methodology. And on the subject of
2 crediting methodology and allocation, Bonneville stated that if the program is going to address credit
3 and mitigation obligation discharge, it should draw upon the 1989 rule “where a 1:1 crediting ration
4 was used implicitly in an amendment asking Bonneville to achieve 35 percent of the FCRPS wildlife
5 mitigation by the year 2000. If crediting ratios are to be addressed further in the program, they must
6 follow the policy Bonneville accepted or explain the biological basis for any changes made.”
7

8 Bonneville provided detailed comments on individual components of the plan, many focused
9 on the use of the Habitat Evaluation Procedure (HEP) and particularly emphasizing the issues of
10 crediting, annualization and allocation already introduced above. Bonneville strongly objected to the
11 use of annualization as part of the Habitat Evaluation Procedure. This process estimates the habitat
12 units with and without the project and projects this into the future; Bonneville contended that the
13 assumptions necessary for such assessments are not supportable. Bonneville recommended
14 deletion of the sections of the Draft Wildlife Plan addressing HEP accounting methods and
15 standardization of without-project assessments and would like to see references to the use of
16 annualization deleted throughout the Plan, stating that this concept is “economically and scientifically
17 unsupportable.” Bonneville believes that the use of annualization would not provide mitigation credit
18 for all existing habitat values and that this is contrary to their position that they should receive full
19 credit for existing value on any land acquired through the program. For these and other reasons,
20 Bonneville recommended a thorough legal and historical analysis of the issues raised before any
21 attempt to adopt or revise these provisions. Bonneville also objected to one of the Plan’s goals --
22 to determine the allocation of expenditures by the federal entities needed to achieve full mitigation
23 for project impacts. Allocation has already taken place, through the sheer fact of the multi-purpose
24 project authorizations and the subsequent project purpose allocations developed and agreed to by
25 the federal agencies.
26

27 Bonneville objected to the assessment of irrigation impacts as part of operational impacts to
28 be identified in the future, presenting a number of reasons as to why it is inappropriate to include
29 irrigation impacts as operational impact on wildlife and pointing out that Congress considered
30 irrigation and power production separate, distinct project purposes as indicated by project
31 authorization. Interpreting irrigation impacts as hydrosystem operational impacts is not supported
32 by the legislative history of the Act. Such an interpretation would be inconsistent with 4(h)(10)(c) of
33 the Act, which provides a means for Bonneville to recoup the non-power purpose share of
34 mitigation that Bonneville funds directly. Bonneville also objected to references to “full mitigation” in
35 the draft plan, for the reason stated above (project purposes include non-hydropower purposes)
36 and because the Act does not contemplate full mitigation and such an obligation may be inconsistent
37 with assuring an adequate, efficient, economical and reliable power system. Moreover, the plan
38 should call for mitigating lost wildlife habitat, not wildlife, for a variety of reasons explained in the
39 comment.
40

41 Bonneville also raised issues with regards to the Plan’s assumption of a 100-year life for
42 federal hydropower projects and wildlife mitigation. For project repayment purposes the life of
43 projects is assumed to be 50 years and for depreciation purposes, 75 years. Further discussion is

1 needed to settle this question. Additionally, Bonneville raised concerns over Plan elements that it
2 interprets as having Bonneville provide funds to wildlife managers prior to the development of
3 mitigation plans. This is unacceptable and could present NEPA problems. Land should not be
4 purchased until after NEPA compliance. Also, it may not be necessary to prepare tiered NEPA
5 documents for each activity, as the plan states, and Bonneville must be responsible for and direct
6 NEPA compliance, not the agencies and tribes.

7
8 Bonneville also commented that the third paragraph in existing Section 11.3E.1, concerning
9 inconsistencies in the basin over the amount of credit to give for acquisitions of habitat involving the
10 protection of existing habitat, and slated for deletion as part of the changes associated with the
11 adoption of the Draft Wildlife Plan, should not be deleted. "There continues to be a need to resolve
12 inconsistencies in crediting for habitat acquisitions."

13
14 Finally, in commenting on the draft Wildlife Plan, Bonneville included a number of comments
15 that were directed at existing measures in the Wildlife section of the program which were not
16 proposed for amendment, even if incorporated into the Wildlife Plan, including the following:
17 Bonneville objected to the Wildlife Program Goal (Section 11.1) for calling for full mitigation of
18 wildlife losses from the federal and non-federal hydroelectric system. Bonneville incorporated its
19 comments on this issue from Phase IV and noted that full mitigation was not contemplated by the
20 Act, that Bonneville has no obligation to mitigate for the impacts of non-federal projects, and that
21 Bonneville cannot commit to full mitigation because it might interfere with Bonneville's obligation to
22 assure an adequate, efficient, economical and reliable power supply. Bonneville also objected to
23 use of the phrase "mitigating wildlife losses" in the goal. They would prefer the use of "wildlife
24 habitat losses". Bonneville also stated that it "cannot accept or follow" the definition of mitigation
25 that is in Section 11.2C. Bonneville stated that it "cannot be held accountable" for management by
26 the appropriate resource managers. "This definition is unacceptable because it attempts to confine
27 Bonneville's mitigation opportunities and responsibilities to those enumerated in the program."
28 Where it is required to provide mitigation under statutory authorities outside of the Act, this should
29 be credited to Bonneville's mitigation obligation if it is consistent with the Act. (146, 229)

30
31 The Bureau of Reclamation commented that Reclamation is slated for partial funding of the
32 Draft Wildlife Plan and, if adopted into the program, Reclamation will need information ("impact
33 factors, dam and reservoir, and funding agreements") by August to begin the budgeting process for
34 1998 appropriations. (206)

35
36 The Oregon Water Coalition, Hermiston, Oregon, "questions the pilot project using losses
37 attributable to Dexter Dam on the middle fork of the Willamette River. Why not apply these same
38 goals on the Columbia River Dams and the mainstem Columbia System where all the studies
39 supposedly are already done and apply those evaluations to all other areas of the Basin?" (203)

40
41 **Findings:** The Council adopted a modified version of the recommendation, as a new
42 Section 11.3B. The draft Wildlife Plan called for Bonneville to conduct a NEPA assessment of the
43 proposed mitigation actions that will result from the plan. During the comment period, Bonneville

1 announced, after consultation with the Wildlife Managers, that it intended to initiate the NEPA
2 process by undertaking a programmatic EIS on wildlife mitigation. Bonneville expects to complete
3 the EIS by the end of 1995. Once the EIS is complete, the Council anticipates that changes will
4 have to be made to the draft Wildlife Plan to incorporate the results of the EIS. Thus the Council, in
5 revised Section 11.3B, directed Bonneville, the Wildlife Managers and other interested parties to
6 make the appropriate changes by March 1996 to finalize the plan for Council approval. In revising
7 the plan, the parties are to consider the substantive and editorial comments submitted to the Council
8 during this rulemaking process.

9
10 Nearly all commentors, including Bonneville, the Upper Columbia United Tribes and the
11 proposers, stated that further efforts to study the construction/inundation loss assessments is
12 unnecessary. Thus in a revised Section 11.3A.1, the Council recognized the loss assessments
13 currently in the program as the unannualized losses attributable to the construction of the federal
14 hydropower system. Any adjustment to these losses will be done as part of the operational loss
15 assessments addressed in the draft Wildlife Plan, Appendix G. One of the changes that will have to
16 be made to the draft plan in the next six months will be to remove the tasks calling for adjustments
17 to the existing construction losses.

18
19 The Council did not propose modifications to the draft Wildlife Plan that would preclude the
20 use of annualization. Bonneville asserted that the annualization process described in the Habitat
21 Evaluation Procedure is "economically and scientifically unsupportable." The Habitat Evaluation
22 Procedure, including the annualization process, was developed by the U.S. Fish and Wildlife
23 Service. It is widely supported as the preferred scientific method for assessing wildlife mitigation
24 efforts, including by all the region's fish and wildlife agencies and tribes. The method is used
25 throughout the country by a variety of federal and state agencies and by a number of private and
26 public utilities to determine mitigation requirements for a variety of projects that impact wildlife
27 habitat. The Council is thus not persuaded by the Bonneville comments to abandon the use of
28 annualization as one of a number of analytical tools useful in performing loss assessments and
29 mitigation crediting.

30
31 The Council also modified Section 11.3C.1 [formerly Section 11.3E.1], concerning the
32 crediting process. It is clear that Bonneville should receive at least some credit for protecting
33 existing habitat, and that it is precisely the use of the annualization process contained in the Habitat
34 Evaluation Procedure (in the absence of a negotiated settlement of some type) that will allow for this
35 determination of protection credit. Bonneville's comment that it should automatically receive full
36 credit for existing value on any land acquired through the Program is inconsistent with its comments
37 on the Lower Snake Compensation Plan, where Bonneville argues that the LSRCP is the best
38 model of how Congress anticipated wildlife mitigation should be accomplished. Using the HEP as
39 the preferred method for accounting for mitigation credit, the Corps of Engineers and the affected
40 parties negotiated an agreement under the LSRCP whereby the Corps of Engineers receives 50
41 percent credit for existing value on land acquired through that program.

42

1 It is important to note that the Council has not made a decision on the total wildlife losses
2 that the federal hydrosystem will be responsible for. That decision will be made after the Council
3 examines the results of the loss assessments called for in the plan. The annualization process will
4 provide the Council with a full spectrum of the losses caused by the construction and operation of
5 the federal Columbia River dams. The Council and Bonneville will then determine what portion of
6 the wildlife losses Bonneville's ratepayer are responsible for mitigating.. To the extent that
7 Bonneville continues to have concerns about the use of annualization, the Council recommends that
8 Bonneville raise those concerns with the wildlife managers in the preparation of the programmatic
9 EIS and the revision of the plan.

10
11 The Council is also not persuaded by Bonneville's comments that the Lower Snake River
12 Compensation Plan preempts any further attempt (in the Snake or as a whole) to develop
13 methodologies and analyze losses, assess mitigation responsibilities and credit mitigation activities.
14 Congress authorized the LSRCP in 1976, to provide mitigation for losses to fish and wildlife caused
15 by the construction and operation of Lower Granite, Little Goose, Lower Monumental and Ice
16 Harbor Dams on the Snake River. In the area of wildlife, Congress did not specify how the
17 mitigation was to be accomplished or credited. As noted above, the actual process was determined
18 in negotiations between the Corps of Engineers and various affected parties. The issues of crediting,
19 annualization and operation and maintenance funding were part of those negotiations. The parties,
20 including the Corps, decided to use the Habitat Evaluation Procedure as the preferred method for
21 accounting for mitigation credit. Thus the LSRCP as passed by Congress is not a region-wide
22 model for wildlife mitigation planning and implementation by the wildlife managers. If there is any
23 model in the Corps' implementation of the LSRCP, it is the use of the HEP as the preferred method
24 for crediting, which is what the draft Wildlife Plan calls for.

25
26 Bonneville further commented that under the Act it ought to determine many elements in the
27 plan, such as crediting and annualization, as the agency responsible for implementation, with
28 assistance of the comments of the wildlife managers. Note that the 1993 Program called on
29 Bonneville to develop and recommend to the Council a process to address operational losses.
30 Bonneville did not pursue this work. Thus the Wildlife Working Group, with Bonneville
31 participation, developed the plan. Bonneville never raised this issue while the plan was being
32 developed.

33
34 More important, Bonneville's comment obscures a primary principle of the Power Act --
35 Bonneville's implementation of wildlife protection, mitigation and enhancement is to be guided by the
36 policy planning of the Council. Developing a wildlife plan that includes elements for determining
37 what the wildlife losses are from hydropower development and operation and how mitigation efforts
38 to address those losses should be credited to the hydropower system is well within the Council's
39 responsibility under the Act to develop a program to mitigate the wildlife losses attributable to
40 hydropower. Under Section 4(h)(5) of the Act, the Council must determine whether
41 recommendations for fish and wildlife mitigation would protect, mitigate and enhance fish and
42 wildlife affected by hydropower development and operations. A determination that there has been
43 a hydropower impact that has not been addressed is implicit in this requirement. Moreover, Section

1 4(h)(8)(B) of the Act requires that the Council consider, as it develops its program, that electric
2 power consumers are to bear the cost of measures designed to deal with the adverse impacts of the
3 hydropower facilities only. The Council cannot comply with this section without developing,
4 approving and applying methodologies for determining what losses are attributable to hydropower
5 development and how mitigation efforts address those losses. The Council's amendment process is
6 the appropriate forum to debate the merits of these and other elements of the draft Wildlife Plan. It
7 is also worth emphasizing that the plan was developed in consultation with Bonneville and others. If
8 in implementation Bonneville discovers that any particular part of the plan or the rest of the Council's
9 program is inconsistent with Bonneville's other obligations under the Act or other authorities, the
10 Council and Bonneville can address the issue.

11
12 The Council agreed with Bonneville's comment not simply to delete the third paragraph of
13 Section 11.3C.1 (formerly Section 11.3E.1), concerning inconsistencies throughout the basin in how
14 to determine the amount of credit to be given for habitat acquisitions. The Council modified this
15 section to reflect that at least until the draft Wildlife Plan is finalized, reviewed and adopted by the
16 Council, the Council is not choosing a method for determining how much mitigation credit Bonneville
17 will receive for wildlife mitigation activities. This section recognizes that crediting can be
18 accomplished either through negotiated settlements, such as happened with the Lower Snake River
19 Compensation Plan, or through the use of the Habitat Evaluation Procedure and the process of
20 annualization. Bonneville and the wildlife managers should decide, in the finalization of the plan, on
21 the appropriate method to be used for crediting the losses.

22
23 On a related point, the Council does not agree with, or even understand, Bonneville's
24 comments that the Council must apply what Bonneville believes was the crediting formula from the
25 1989 program. In the first place, Bonneville does not correctly characterize the 1989 program.
26 The Council's 1989 goal (an "interim" goal of 35 percent mitigation) was stated in terms of "habitat
27 units" and did not imply any type of crediting ratio. More important, the Council amended the
28 wildlife portion of the program in 1993, removing the reference to what had been an "interim" 35
29 percent mitigation goal and stating a new goal of full mitigation, and adopting new provisions calling
30 for development of the crediting methodology. The Council amended that program in 1993, with
31 Bonneville participation, and is doing so again here. Why the Council is obligated to follow a
32 superseded provision of the 1989 program is not clear.

33
34 As discussed above, the Council accepted Bonneville's comment that it and the other
35 federal agencies had accomplished an allocation of responsibility for wildlife mitigation expenditures
36 among the project purposes of the federal hydropower projects, in Section 11.2A. Thus the plan
37 and the program no longer need to call for this allocation.

38
39 In response to another Bonneville comment, the draft Wildlife Plan does not treat irrigation
40 impacts per se as hydrosystem operational impacts. The goal of the Council's program is to fully
41 mitigate for wildlife losses caused by the construction and operation of the hydroelectric system.
42 Section 11.2A.1 states that Bonneville, in consultation with other responsible operators and
43 managers, is to coordinate the ratepayer share of funding with other federal and private entities who

1 are responsible for impacts caused by non-electric power development, such as irrigation. The
2 Council calls for the a comprehensive, coordinated wildlife mitigation strategy, in which everyone
3 pays their respective shares. Electric ratepayers are to responsible for 72 percent of the mitigation,
4 the amount allocated to hydropower by the federal agencies. The 1993 Program calls on
5 Bonneville to coordinate this effort and to develop comprehensive agreements necessary to ensure
6 coordinated implementation. These agreements were to have been submitted to the Council by
7 December 1, 1994. To date, nothing has been submitted.

8
9 With regard to Bonneville's comments about a Wildlife Goal of "full mitigation" and the
10 definition of "mitigation" in the program, these sections of the program were simply incorporated
11 into the draft Wildlife Plan and were not the subject of recommendations or noted for revision in the
12 draft rule. Thus consideration of any suggested revisions to these sections may be beyond the
13 scope of this rulemaking. More important, the Council does not agree that calling for full mitigation
14 as a goal is inconsistent with the Act. The Act requires the Council to develop a program to
15 protect, mitigate and enhance fish and wildlife while assuring the region an adequate, efficient,
16 economical and reliable power system. The Council agrees that full mitigation for the impacts of the
17 hydropower facilities is, of course, subject to the requirement that the Council and Bonneville be
18 able to assure a power supply that meets the statutory qualifications. The Council can see no other
19 justification under the Act for a Council or Bonneville decision to bring mitigation activities to an end
20 with wildlife losses unaddressed. This is what the Council means by the concept of full mitigation as
21 a goal. The Council's definition of mitigation incorporates this principle as well.

22
23 The mitigation definition also recognizes that non-federally owned but federally licensed and
24 regulated hydropower facilities in the basin have had an adverse impact on wildlife. Developing
25 measures to mitigate for the impacts of these projects is clearly within the responsibility of the
26 Council, with FERC obligated to take the program into consideration to the fullest extent
27 practicable. This part of the definition should not affect Bonneville. To the extent Bonneville's
28 concerns about the mitigation are that the Council has no authority to define what mitigation is, the
29 issue of the Council's general authority has been addressed above. How the Council can develop a
30 program to mitigate the impacts of the hydropower system on wildlife without having the authority or
31 responsibility to come to a general understanding of the meaning of mitigation is hard to see. To the
32 extent that Bonneville's concerns about the definition are based on the Council's statement that
33 mitigation includes achieving and then "sustaining" habitat and species productivity is addressed
34 below, in connection with the recommendation concerning the funding of operation and maintenance
35 (WDFW Recommendation No. 95-2/0017).

36
37 Finally, as to Bonneville's comments that the goal of the program should focus on wildlife
38 habitat rather than species, note that in its draft Phase 4 wildlife amendments, in 1993, the Council
39 described the goal strictly in terms of habitat. In commenting on the draft, Bonneville suggested that
40 in addition to sustaining levels of habitat productivity, the goal should also be tied to species
41 response, not just habitat units. The Council accepted that suggestion. This issue was discussed on
42 a number of occasions during the development of the draft Wildlife Plan by the Wildlife Working
43 Group. Bonneville participated in these discussions but did not raise this issue. This is one of the

1 various issues raised by Bonneville, many but not all of which have been addressed here, that should
2 be addressed and resolved by Bonneville and the wildlife managers, with the assistance of the
3 Council and its staff, before the plan is finalized and submitted for Council approval in March, 1996.
4
5
6

7 **Program Section(s):** Former 11.3C.1 (Kootenai River mitigation loss assessment)

8 Source: Kootenai Tribe of Idaho

9 Recommendation No.: 95-2/0015
10

11 **Recommendation:** The Kootenai Tribe of Idaho recommended the Kootenai River
12 Wildlife Mitigation Project. Section 11.3C.1 of the 1994 program called generally for Bonneville to
13 fund studies to develop statements of wildlife losses and gains from hydropower project
14 development and operations. The Kootenai Tribe recommended adding a specific provision stating
15 that “Bonneville shall fund a loss assessment for wildlife habitat lost as a result of operation of Libby
16 Dam in the Idaho portion of the Kootenai River, downstream from Libby Dam. Current operations
17 will be assessed as to changes in habitat and associated wildlife populations, and the effect of
18 hydropower peaking will be determined. The loss assessment will be conducted by the Idaho
19 Department of Fish and Game and Kootenai Tribe of Idaho.”
20

21 **Draft:** Not included in the draft rule.
22

23 **Comment:** The Upper Columbia United Tribes commented that the Kootenai Tribe has
24 repeatedly submitted this recommendation to assess these losses and recommends that the language
25 be added to the Program. (196)
26

27 Bonneville commented generally that if budget shares do get fixed and remain relatively
28 stable, the benefits of further study on loss assessments is questionable. The program should focus
29 on projects to benefit fish and wildlife and not assessments; if program goals and biological
30 objectives are measurable and achievable, crediting should relate toward progress toward goals and
31 objectives, not historic conditions. (146)
32

33 **Findings:** The Council did not amend the program to add the Kootenai Tribe’s specific
34 recommendation for a Libby Dam operational loss assessment. Instead the Council deleted former
35 Section 11.3C. Central to the draft Wildlife Plan is a coordinated process whereby the wildlife
36 managers will determine the wildlife losses and gains that have resulted from the operations of all the
37 hydropower projects. As noted above, the Council has asked the wildlife managers to refine the
38 plan expeditiously and submit to the Council for final approval. This operational loss assessment
39 process is intended to encompass specific recommendations such as this one by the Kootenai Tribe.
40 The Council believes the loss assessments will be conducted more quickly and find greater
41 acceptance if performed as part of a coordinated, consistent program, rather than an a series of
42 discrete measures, and the Council believes the wildlife managers as a whole agree. Thus the
43 Council concludes that the recommendation was less effective than what the Council has adopted in

1 ensuring the protection, mitigation and enhancement of anadromous fish, resident fish and wildlife,
2 16 U.S.C. §839b(h)(7)(C), and because the recommendation did not complement the activities of
3 all the region's wildlife agencies and tribes as well as what the path chosen by the Council, 16
4 U.S.C. §839b(h)(6)(A), (7)(B).
5
6
7

8 **Program Section(s): Former 11.3D.1 (crediting existing mitigation)**

9 Source: Shoshone-Bannock Tribes

10 Recommendation No.: 95-2/0025
11

12 **Recommendation:** Section 11.3D.1 of the 1994 program called on the Council to consult
13 with "wildlife managers, tribes" and others on mitigation credit. The Shoshone-Bannock Tribes
14 recommended deleting the word "tribes," because the tribes are "wildlife managers," and the existing
15 wording implied that they were not.
16

17 **Draft:** Not included in the draft rule -- Section 11.3D.1 itself was deleted as part of the
18 incorporation of the draft Wildlife Plan.
19

20 **Findings:** The Council did not adopt the recommendation, as it is moot. The Wildlife Plan
21 will address crediting existing mitigation. The Council deleted Section 11.3D.1 in the 1994
22 program, so the semantic problem identified and addressed by the recommendation no longer
23 exists.
24
25
26

27 **Program Section(s): 11.3C.1, 11.3E.1, 11.3F (operation and maintenance funding)**

28 Source: Washington Department of Fish and Wildlife

29 Recommendation No.: 95-2/0017
30

31 **Recommendation:** The Washington Department of Fish and Wildlife recommended five
32 additions to four program sections to add language concerning funding of operation and
33 maintenance of wildlife projects. The cover letter states that these amendments "specifically relate
34 to the Lower Snake River Fish and Wildlife Compensation Plan, and the need for the U.S. Army
35 Corps of Engineers to provide operation and maintenance funding for off-project lands prior to their
36 [the Corps'] mitigation obligation being discharged." The recommended additions include specific
37 operation and maintenance funding requirements to the existing measures. Some of the
38 recommended language (specifically, the proposed additions to former Section 11.3H, now Section
39 11.3F) would apply only to the lower Snake projects. The recommended additions to former
40 Sections 11.3E.1 [now 11.3C.1] and 11.3G.1 [now 11.3E.1], however, would impose a general
41 requirement that mitigation activities and agreements include funding for operation and maintenance.
42

1 **Draft:** The Council included in the draft rule the language recommended for addition to
2 Section 11.3E.1 [now Section 11.3C.1], while noting that this section could be deleted if the
3 Council adopted the draft Wildlife Plan, and the two additions to Section 11.3G.1 [now Section
4 11.3E.1]. These were the part of the recommended proposing general requirements for operation
5 and maintenance funding. The Council did not include in the draft rule the recommended additions
6 to Sections 11.3H [now Section 11.3F], although it did include them in the draft rule appendix
7 “Other Amendment Recommendations On Which the Council Specifically Invites Comment.”
8

9 **Comment:** The Washington Department of Fish and Wildlife commented to confirm its
10 continued support for this recommendation. The Corps of Engineers should be directed to fund
11 operation and maintenance for off-project lands before their mitigation obligation can be discharged.
12 (230)
13

14 The Corps of Engineers disputed WDFW’s recommendation calling for the Corps to fund
15 operation and maintenance for off-project lands before the Corps’ mitigation efforts are discharged.
16 The Corps attached a number of documents and a chronology explaining that Congress and the
17 Corps never intended the Corps to fund operation and maintenance for these lands and that
18 WDFW fully recognized and acquiesced in this arrangement. (150, 224)
19

20 Bonneville recommended that the entire paragraph in Section 11.3E.1 [now Section
21 11.3C.1] be deleted (both the existing language and the proposed amendment), for reasons similar
22 to the objections raised by the Corps and for other reasons. This section of the program explains
23 when mitigation obligations under the Act have been discharged, and the proposed amendment
24 adds that the obligation is not discharged until the facility operator provides adequate operation and
25 maintenance funding. According to the comments, Bonneville’s duty to mitigate arises under
26 Section 4(h)(10), and only the Administrator (and the courts, when reviewing Bonneville’s
27 decisions) have “the right to establish when Bonneville’s mitigation duties are discharged.” While
28 Bonneville has occasionally provided funding for initial operation and maintenance, “[w]hen a
29 project is or should be largely self-sustaining, then Bonneville believes it has no further duty to fund
30 operation and maintenance.” Once the planned, agreed upon habitat improvements are complete,
31 the resource manager should have sole responsibility for the mitigation site and for project
32 management authority, including at least the major, long-term portion of operation and maintenance
33 funding responsibility. Only if the federal operating agencies or the ratepayers maintain control of a
34 site do the ratepayers retain the responsibility for operation and maintenance funding. This position
35 is supported by Bonneville’s position that wildlife mitigation sites must be held in perpetuity; the
36 region cannot afford to pay operation and maintenance in perpetuity. As a general conclusion,
37 Bonneville stated that “[t]he in lieu provision of the Act seems to support this position by precluding
38 Bonneville from providing further operation and maintenance funding.” Bonneville also
39 recommended that the language proposed for addition to Section 11.3G.1 not be adopted, as
40 Bonneville does not have a responsibility for long term operation and maintenance funding. (209)
41

42 **Findings:** The Council declined to adopt the recommended revisions to Section 11.3H
43 [now Section 11.3F] concerning the Corps’ operation and maintenance funding responsibilities

1 under the LSRCF. The Council is persuaded by the arguments from the Corps that Congress did
2 not mandate that the Corps pay operation and maintenance funding for off-project lands. This
3 conclusion is supported by the fact that the Washington Department of Fish and Wildlife agreed
4 with the Corps in the negotiated agreement that the Corps is not responsible for operation and
5 maintenance funding for these losses.

6
7 The Council did adopt the recommended changes to Sections 11.3E.1 [now 11.3C.1,
8 Credit for New Actions] and 11.G.1 [now 11.E.1, Long-Term Agreements] to state explicitly that
9 the ratepayers mitigation obligation for the wildlife impacts of the hydropower system is not
10 discharged unless and until Bonneville and the other responsible parties provide sufficient funding for
11 the operation and maintenance of the mitigation lands. The Council does not consider this to be a
12 new substantive amendment to the program. Instead, the new language states explicitly what has
13 been the understanding of the Council and the intent and practice of the program.

14
15 Bonneville disputes that its mitigation obligation under the Act extends to funding long-term
16 or permanent operation and maintenance of the mitigation activity. More fundamentally, Bonneville
17 disputes that the Council has the authority under the Act to determine the scope of Bonneville's
18 mitigation obligation. The findings above in connection with the draft Wildlife Plan address the
19 question of the Council's authority and responsibilities. As noted above, Council's policy planning
20 role under the Act includes determining the impact of the projects on fish and wildlife, how to
21 mitigate those impacts, and how to credit the mitigation to ensure that the ratepayers are paying only
22 for the hydropower share of the losses. Whether the ratepayers' mitigation obligation extends to
23 providing funding for operation and maintenance of acquired mitigation lands, and not just
24 acquisition, is a legitimate inquiry for the Council to make and determine in the course of this
25 planning function.

26
27 Within this context, the Council concludes that Bonneville's mitigation obligation may include
28 the funding of operation and maintenance. As Bonneville noted, mitigation for permanent project
29 impacts must also be permanent. If acquired lands lose their mitigation values because they have
30 not been managed for those values, mitigation no longer exists. Logic dictates that if the mitigation
31 for impacts caused by the hydropower system must be permanent, then the ratepayers cannot
32 receive the full mitigation credit possible from a project based on a funding level likely to support
33 only temporary mitigation. Moreover, mitigation projects are rarely "self sustaining," in the sense
34 that without management intervention, the appropriate, enhanced level of mitigation expected and
35 credited to the hydropower system will not be achieved.

36
37 Bonneville commented that the "in lieu" section of the Act -- Section 4(h)(10)(A) --
38 indicates that Congress did not intend Bonneville to provide operation and maintenance funding.
39 This section states that Bonneville is to provide expenditures that are in addition to, and not in lieu
40 of, expenditures "authorized or required" from other entities. Whether the mitigation obligation for
41 operation and maintenance funding for a particular project falls on Bonneville or on another entity is
42 precisely the question which must be resolved first, and it is the resolution of that question that

1 determines whether Bonneville expenditures for this purpose would be in addition to or in lieu of
2 expenditures required of the other.

3
4 Bonneville may or may not have a point, as raised in its comments at various places, that
5 Bonneville should not have an obligation for operation and maintenance in perpetuity for every
6 project, that at least partial responsibility might rest on the wildlife managers in some circumstances.
7 This is not the same as the other comments from Bonneville that it simply has no obligation to
8 provide funding for operation or maintenance once a project is acquired and turned over to the
9 wildlife managers. The Council recognizes that the level of Bonneville's contribution to operation
10 and maintenance funding may be evaluated for every project funding agreement or trust agreement.
11 Whether Bonneville funds operation and maintenance in perpetuity for any particular project may be
12 less an issue of obligation than of the amount of mitigation credit Bonneville may claim for the
13 project. But the Council believes the presumption in every case should be that Bonneville funds
14 operation and maintenance, with the burden of showing that circumstances exist for attaching some
15 or all of that operation and maintenance funding obligation to some other party.

16
17
18
19 **Program Section(s): 11.3D, 10.8B (Lake Coeur d'Alene wildlife mitigation project)**

20 Source: Coeur d'Alene Tribe

21 Recommendation No.: 95-2/0021

22
23 **Recommendation:** Section 11.3D.2 [formerly Section 11.3F.4] calls for interested parties
24 to submit a list of wildlife projects to the Council for implementation; Section 11.3D.3 [formerly
25 Section 11.3F.3] calls on the Council to select and approve wildlife projects to funded in any given
26 fiscal year; and existing Section 11.3D.4 [formerly Section 11.3F.4] then calls on Bonneville to fund
27 those projects. The Coeur d'Alene Tribe recommended adding a specific project to this section
28 and to Section 10.8B: Bonneville is to fund the Tribe in fiscal year 1996 to conduct "a NEPA
29 analysis, a habitat analysis and a land value appraisal of a 2100 acre wetland/riparian and associated
30 upland parcel in the Lake Creek drainage and Windy Bay area of Lake Coeur d'Alene."
31 Bonneville will purchase a land option and transfer title to the Bureau of Indian Affairs to be put into
32 trust for the Tribe. In fiscal year 1997 Bonneville is to complete the land purchase, and fund the
33 Tribe for habitat enhancement activities and for a long-term operation and maintenance and
34 monitoring and evaluation program. This parcel is to be credited for 250 acres of wildlife habitat
35 losses due to Albeni Falls Dam, see Table 11-4, and as a resident fish substitution for salmon losses
36 due to Grand Coulee Dam.

37
38 **Draft:** This measure was incorporated into the UCUT Tribes' comprehensive revision of
39 Section 10.8B (Recommendation No. 95-2/0070, discussed above), as proposed Section
40 10.8B.37 in the draft rule. The Council did not repeat the measure at Section 11.3F as
41 recommended, with the understanding that the redundancy was not necessary (and could be
42 confusing) to recognize that the implementation of this project would have wildlife benefits.

1 **Comment:** See the comments for Section 10.8B.

2
3 **Findings:** Adopted as Section 10.8B.21. See the findings for Section 10.8B.

4
5
6
7 **Program Section(s):** **11.3D.6 (Pend Oreille wildlife mitigation project)**

8 Source: Kalispel Tribe

9 Recommendation No.: 95-2/0083

10
11 **Recommendation:** The Kalispel Tribe recommended authorization for a specific wildlife
12 mitigation project under Section 11.3D [formerly Section 11.3F]: Bonneville is to fund the Tribe to
13 purchase 100 acres adjacent to the existing Pend Oreille Wetlands Wildlife Mitigation Project "to
14 protect and enhance an additional 100 acres of riparian forest and adjacent flood plain to partially
15 mitigate lost habitat units caused by the inundation and water level fluctuations" related to the Albeni
16 Falls project. Funding will be for purchase, operation and maintenance, and monitoring and
17 evaluation.

18
19 **Draft:** Included in the draft rule. The Tribe recommended that this measure be added to
20 former Section 11.3F in two different measures -- as an amendment describing the project and as a
21 corresponding amendment describing what Bonneville will be doing to implement the project (i.e.,
22 purchasing and transferring land). The Council inadvertently added both recommended measures as
23 proposed new Sections 11.3F.6 and 11.3F.7 in the draft rule, in a manner that made the second
24 reference redundant, as subsequently pointed out by the UCUT Tribes among others.

25
26 **Comment:** Bonneville provided a general comment on all proposals for specific projects:
27 "Where the draft amendments include specific measures such as dictating the purchase of land in a
28 specific quantity in a particular area, the Council must have thoroughly examined the proposal and
29 made findings under section 4(h)(5), (6), (7) and (8). These finding need to be part of the draft
30 Program amendment review. Specifying the transfer of land into trust with the BIA does not appear
31 to fall within the scope of the program." (229)

32
33 **Findings:** The Council adopted this recommendation, as a new Section 11.3D.6 (deleting
34 the redundant language in the draft rule). Consistent with Bonneville's comments, the measure has
35 been adopted to state that Bonneville is to fund the purchase of the land and the purpose of the
36 purchase, but without specifying that Bonneville is to transfer the land into trust with the Bureau of
37 Indian Affairs.

38
39 With regard to Bonneville's general comment, the Council must examine every
40 recommended measure -- not just proposals for specific projects or for specific purchases of land -
41 - to determine if the measure satisfies the criteria in the Act for adoption into the program. On the
42 other hand, the Act requires the Council to adopt findings based on the criteria only if the Council
43 decides not to adopt the recommendation. The Council is adopting this recommendation, based on

1 its consideration of the information submitted by the Kalispel Tribe, to address
2 construction/inundation losses related to Albeni Falls Dam. Because the Council is adopting the
3 recommendation, the Council need not provide findings. Of course, if Bonneville or any other
4 commentor raises specific issues about a recommended measure, the Council must respond in some
5 fashion to those comments, even if the Council is adopting the recommendation. However, neither
6 Bonneville nor anyone else raised any specific issue or objection with regard to this
7 recommendation.

8
9
10
11 **Program Section(s):** 11.3D.7 (Black Canyon Reservoir wildlife mitigation project)
12 **Source:** Idaho Department of Fish and Game
13 **Recommendation No.:** 95-2/0045
14

15 **Recommendation:** The Idaho Department of Fish and Game recommended as another
16 specific wildlife project: "Bonneville shall fund [IDFG] to begin advance design activities and
17 implement Black Canyon Reservoir wildlife mitigation, with the highest priority area in the Bruneau
18 River Valley." This project will address construction/inundation losses associated with the Black
19 Canyon project.
20

21 **Draft:** Included in the draft rule as a proposed new Section 11.3F.8, modified to state
22 only that Bonneville is to fund the task without specifying who will be funded to perform the work.
23

24 **Comment:** Bonneville provided a general comment on all proposals for specific projects:
25 "Where the draft amendments include specific measures such as dictating the purchase of land in a
26 specific quantity in a particular area, the Council must have thoroughly examined the proposal and
27 made findings under section 4(h)(5), (6), (7) and (8). These finding need to be part of the draft
28 Program amendment review. (229)
29

30 **Findings:** The Council adopted this recommendation as a new section 11.3D.7, with the
31 modification noted in the draft rule. For the response to Bonneville's general comment about
32 adoption of specific projects into the program, see the finding on the immediately preceding
33 recommendation, concerning the Kalispel Tribe's recommended land purchase.
34

35 The Council modified the recommendation in response to another general comment from
36 Bonneville and to further the Council's own policy not to direct Bonneville to fund particular entities
37 to carry out particular work. The Council has concluded that this is the most cost-effective way to
38 protect, mitigate and enhance fish and wildlife resources and thus spread and balance program
39 spending and the cost impact to the power system. For this reason, the Council finds that the
40 measure adopted is more effective than the recommended language in protecting, mitigating and
41 enhancing wildlife, 16 U.S.C. §839b(h)(5), (7)(C).
42
43

1
2 **Program Section(s):** **11.3D (wildlife mitigation coordinator)**

3 Source: Shoshone-Bannock Tribes

4 Recommendation No.: 95-2/0025

5
6 **Recommendation:** The Shoshone-Bannock Tribes recommend a new measure calling on
7 Bonneville to fund a "wildlife coordinator" for the Tribes "to facilitate their participation in the
8 preparation of wildlife mitigation plans, projects, and agreements."
9

10 **Draft:** Included in the draft rule as proposed new Section 11.3F.8, modified to state that
11 Bonneville is fund "technical assistance" (not a "wildlife coordinator") for the Tribes for this purpose.
12

13 **Comment:** The Upper Columbia United Tribes stated that this measure should include
14 funding for technical assistance to "enable all of the Columbia Basin Indian Tribes to participate in
15 the preparation of wildlife mitigation plans, projects and agreements." The Tribes "recommend that
16 all tribes be listed by name. Our rationale is that all tribes will need to be involved with the
17 assessment of operational losses since these have not been mitigated for at any dam." (196)
18

19 **Findings:** The Council did not adopt this recommendation, as it is superseded by the
20 draft Wildlife Plan, which the Council has asked the wildlife managers to finalize expeditiously and
21 submit for Council approval. The plan provides for funding the operational loss assessments and
22 mitigation planning of the wildlife agencies and tribes, including coordinators and technical assistance
23 where necessary. The Council expects the funding to be sufficient to allow all the wildlife agencies
24 and tribes to participate meaningfully in the operational loss assessments and mitigation planning for
25 wildlife.
26
27
28

29 **Program Section(s):** **11.3F (wildlife mitigation project/Palisades project)**

30 Source: Shoshone-Bannock Tribes

31 Recommendation No.: 95-2/0026

32
33 **Recommendation:** The Shoshone-Bannock Tribes recommended a new measure calling
34 on Bonneville to fund the Tribes, in consultation with Idaho, Bonneville and the Council, to initiate
35 "implementation planning for the remainder of wildlife mitigation projects at the Palisades project."
36 The Tribes' efforts are intended to supplement the planning completed by IDFG that is focused on
37 bald eagles.
38

39 **Draft:** Included in the draft rule as a proposed new Section 11.3F.10, modified to state
40 that Bonneville is to fund the task in consultation with the State of Idaho, the Shoshone-Bannock
41 Tribes, the Council and other interests parties, without specifying who will be funded to perform the
42 work.
43

1 **Comment:** Bonneville provided a general comment on all proposals for specific projects:
2 “Where the draft amendments include specific measures such as dictating the purchase of land in a
3 specific quantity in a particular area, the Council must have thoroughly examined the proposal and
4 made findings under section 4(h)(5), (6), (7) and (8). These finding need to be part of the draft
5 Program amendment review. (229)
6

7 **Findings:** The Council adopted the recommendation as Section 11.3D.8, modified as
8 specified in the draft rule. The modification is based on the general policy of Bonneville and the
9 Council not to direct Bonneville to fund particular entities to carry out particular work. The Council
10 has concluded that this is the most cost-effective way to protect, mitigate and enhance fish and
11 wildlife resources and thus spread and balance program spending and the cost impact to the power
12 system. For this reason, the Council finds that the measure adopted is more effective than the
13 recommended language in protecting, mitigating and enhancing wildlife, 16 U.S.C. §839b(h)(5),
14 (7)(C).
15

16 The findings address Bonneville's general comment in connection with the Kalispel Tribe's
17 wildlife project recommendation, above (No. 95-2/0083).
18
19
20

21 **Program Section(s): 11.3F (lower Snake River dams loss assessments)**

22 Source: Nez Perce Tribe

23 Recommendation No.: 95-2/0029
24

25 **Recommendation:** The Nez Perce Tribe recommended that the Council incorporate into
26 Section 11.3F of the program [formerly Section 11.3H] the wildlife losses from the inundation of
27 habitat associated with the four lower Snake River federal dams. The loss assessment numbers are
28 based on the evaluation completed by the FWS in 1991 and the Corps of Engineers' 1994 loss
29 estimates. In addition, the Tribe recommends that the Council "retain existing program language
30 expressing the Council belief [that] the highest Lower Snake River wildlife mitigation priority is
31 mitigation of the unaddressed losses the Tribe will be working to address," found in Section
32 11.3H.6 of the 1994 program [now Section 11.3F.3].
33

34 **Draft:** Included in the draft rule as unmitigated losses in Section 11.3H and Table 11-4.
35 The Council retained the priority language in Section 11.3H.6
36

37 **Comment:** The Nez Perce Tribe commented further that this amendment “represents the
38 final decision in a long series of decisions the Power Planning Council has made at the urging of the
39 Nez Perce Tribe throughout the last three amendment cycles over the last several years.” The Tribe
40 summarized much of the historical background leading to this proposal and urged the Council to
41 adopt the amendment. (213)
42

1 The Idaho Department of Fish and Game stated that it supported the inclusion of the Snake
2 River compensation program in the Council's program and that IDFG would like to participate as an
3 implementor of any projects required to fully mitigate for the impacts of Lower Granite on Idaho.
4 (44)
5

6 The Corps of Engineers commented that these losses should be labeled “uncompensated
7 losses,” not “unaddressed losses”; that the “region should not start compensating for new habitats
8 and/or losses”; that “[c]hanging species in the middle of a HEP related mitigation program is not a
9 preferred or acceptable process”; and that the Council needs “to develop a distance limit from the
10 four lower Snake River dams, under which compensation will be considered. The Corps also noted
11 that the Lower Snake compensation plan “was Congressionally authorized to compensate for both
12 construction and operation, not just inundation losses.” (150, 224)
13

14 Bonneville commented that it has “serious legal concerns” over this proposed amendment
15 “to include additional wildlife mitigation” for the lower Snake projects. Congress determined
16 through the Lower Snake River Compensation Plan what was appropriate mitigation for these
17 projects, and the Corps has complied with this legislation. It is inappropriate to use the subsequent
18 and general Power Act in an attempt to amend the LSRCP to add additional mitigation
19 requirements. (229)
20

21 **Findings:** The Council adopted this recommendation as addressing the unmitigated losses
22 in the lower Snake, in Section 11.3F [as renumbered from Section 11.3H] and Table 11-4, and
23 retained the priority statement as recommended (now in Section 11.3F.3). As noted in the
24 program, Congress adopted the Lower Snake River Compensation Program in 1976, directing the
25 Corps to develop and implement a mitigation plan to address fish and wildlife impacts from the
26 development of the four lower Snake River federal projects, based on acreage and funding levels
27 set forth by Congress. There is nothing in the provisions of the LSRCP or in its legislative history to
28 indicate that Congress considered the mitigation called for in the LSRCP was to be considered full
29 mitigation for the impacts of these projects or to discharge any further mitigation obligation that
30 might otherwise be imposed by law or agreement. The Corps has implemented the compensation
31 plan as directed by Congress. Bonneville is obligated under the LSRCP to reimburse the Corps for
32 the share of the addressed mitigation impacts attributable to hydropower.
33

34 As the Council developed its wildlife program, especially in the 1989 and 1993
35 amendments, the wildlife managers and the Corps recognized (as they still do) that the Corps’
36 mitigation efforts under the LSRCP, as provided in a limited fashion by Congress, do not fully
37 mitigate the fish and wildlife impacts of these projects. Under the Northwest Power Act, the
38 Council has the responsibility to determine what are the fish and wildlife impacts attributable to the
39 development and operation of the hydropower projects, and to specify appropriate mitigation. That
40 there are unmitigated losses is not disputed, despite the Corps' mitigation efforts and due to the
41 clearly partial nature of the mitigation authorized by Congress under the LSRCP. These
42 unaddressed losses are what the Council is adopting into the program, as it would for any other
43 project in the FCRPS.

1
2 As it has in the past, Bonneville contends that Congress intended the LSRCP to constitute
3 the sole mitigation obligation of the federal government for the impacts of the lower Snake River
4 projects, preempting the ordinary application of the Northwest Power Act to these projects. The
5 Council does not agree. There is no indication in the language of the Power Act -- which followed
6 the LSRCP -- or its legislative history that the Power Act's assigning of responsibility to the
7 hydropower system for unaddressed mitigation of losses caused by the hydropower system was
8 not to apply to the lower Snake, as it applies everywhere else in the basin. Instead, the legislative
9 history of the Power Act shows that Congress was aware that past efforts to mitigate for the
10 impacts of the hydropower projects had been unsuccessful. The purpose of the fish and wildlife
11 provisions of the Act was to mitigate the unaddressed impacts. Congress did not mention the
12 LSRCP when it adopted the Power Act, but Congress has to be presumed to have been aware of
13 the LSRCP. There is no apparent conflict between the LSRCP and the Power Act. The two acts
14 obviously can function together -- the Corps funded a portion of the wildlife mitigation for the lower
15 Snake projects, representing specific Congressional recognition of the need to mitigate for some of
16 the damage from the projects. Under the Power Act, the region's ratepayers are to pay the
17 hydropower share of the unaddressed losses attributable to these projects. Moreover, if there were
18 a conflict between the two statutes, the later enactment (the Power Act) would govern. It is
19 unreasonable to conclude that the Power Act is silently limited by the earlier LSRCP, when there is
20 no textual, logical or policy reason to do so.

21
22 The Corps commented that the LSRCP mitigation efforts address operational losses as well
23 as construction and inundation losses. This may be true; this position will need to be officially
24 analyzed at the time it becomes important -- in the process called for in the draft Wildlife Plan for
25 conducting the operational loss assessments and crediting existing mitigation efforts against those
26 losses

27
28
29
30 **Program Section(s): 11.3F (Snake River compensation program)**

31 Source: Idaho Department of Fish and Game

32 Recommendation No.: 95-2/0044

33
34 **Recommendation:** In the cover letter accompanying a set of wildlife recommendations,
35 the Idaho Department of Fish and Game stated its support for the inclusion of the Snake River
36 compensation program [in what was Section 11.3H, now 11.3F]. IDFG also noted that under the
37 program the Corps agreed to work with IDFG to acquire 50 acres of access sites along the
38 Clearwater, Snake and/or Salmon Rivers, and that the agreement expired 15 acres short of the
39 goal. The Council should "evaluate amending the remaining 15 acres into the Council's program."

40
41 **Draft:** Not included in the draft.

42

1 **Comment:** The Corps of Engineers confirmed IDFG's statement that the Corps'
2 authorization to acquire 50 acres of access sites along the lower Snake, Clearwater and/or Salmon
3 expires if not acquired by October 1, 1995, and that new legislation is necessary for the Corps to
4 allow IDFG more time to find willing sellers. (150)
5

6 **Findings:** The Council did not adopt this recommendation. The Corps of Engineers has
7 the obligation to complete this portion of the LSRCF, which might still be implemented in 1995 or
8 might be implemented in later years through new federal legislation. If this action is not completed
9 as currently planned and authorized, and the Corps acknowledges that further legislation to
10 authorize this mitigation is not forthcoming, that will be the time for IDFG to return to the Council to
11 recommend that this project then become a program measure under the authority and criteria of the
12 Power Act.
13
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17

1 **SECTION 12: FUTURE HYDROELECTRIC DEVELOPMENT**

2
3
4 **Program Section(s):** 12.1A.1, 12.1A.2, 12.2A.1, 12.3A.1, 12.3?

5 Source: Shoshone-Bannock Tribes

6 Recommendation No.: 95-2/0027

7
8 **Recommendation:** The Shoshone-Bannock Tribes recommended a set of amendments to
9 various provisions of Section 12:

10
11 Section 12.1A.1: This section calls on FERC, Bonneville and others not to license, acquire
12 power from, etc., or otherwise support hydroelectric development in the basin that does not meet
13 certain specified conditions that protect fish. The Tribes recommend adding "acquire or wheel
14 power" as one of the specified types of support that must meet the conditions. The Tribes want the
15 lead-in sentence to the conditions to state clearly that support cannot be given "without specifically
16 providing for these development conditions," to make this section consistent with the language of its
17 companion Section 12.1A.2, concerning wildlife.

18
19 The Tribes also recommend minor amendments to some of the conditions listed in Section
20 12.1A.1: Consultation with "fish and wildlife agencies and tribes" is changed to "fish managers."
21 The reference to providing for "downstream and upstream migration of salmon and steelhead" has
22 been changed to "downstream and upstream passage of anadromous and resident fish." And the
23 reference to not inundating "usual and accustomed fishing and hunting places" of any tribe has been
24 changed to "traditional or contemporary fishing places." Finally, the Tribes recommend adding two
25 development conditions to the list required for support of a hydro development: "collect[ion] of data
26 needed to monitor and evaluate the results of the fish protection efforts" and "assurances that the
27 project will not degrade water quality beyond the point necessary to sustain sensitive fish species (as
28 designated in consultation with the fish species)."

29
30 Section 12.1A.2: Similar changes are recommended for the development conditions to
31 protect wildlife in Section 12.1A.2. The lead-in sentence adds wheeling and granting billing credits
32 as two types of support that cannot occur without providing for the development conditions. In the
33 conditions, "wildlife agencies and tribes" is replaced by "wildlife managers." The reference to land
34 or management rights is supplemented by a specific reference to the use of "conservation
35 easements." And two conditions are added: "assurance that the project will not inundate the
36 traditional or contemporary hunting places of any tribe," and "assurance that the project will not
37 degrade wildlife habitat or reduce numbers of wildlife in such a way that the exercise of treaty rights
38 will be diminished."

39
40 Section 12.2A.1: The primary standard for Bonneville to apply to protected areas, in
41 Section 12.2A.1, is to be altered as follows: "Do not acquire, provide billing credits, or wheel
42 power from hydroelectric projects located in protected areas including transition projects."
43

1 Section 12.3A.1: This section calls on federal project operators and regulators to review
2 simultaneously all "applications or proposals" for hydro development in a "single river drainage."
3 The Tribes would add to this to make clear that "relicensings" are included in this provision, and that
4 what is a single river drainage will be "as determined through consultation with the fish and wildlife
5 managers."
6

7 New additions to Section 12.3: Finally, the Tribes recommend two additional sections.
8 First, a new provision calls on the fish and wildlife managers to develop "standards for conducting
9 cumulative effects analysis." Second, federal land managers and the federal and state fish and
10 wildlife agencies are to "consult with and incorporate suggestions from regional Indian Tribes when
11 recommending project terms and conditions for projects exempted from licensing" by FERC.
12

13 **Draft**: The recommended additions to Sections 12.1A and 12.1B were included in the
14 draft rule. All of the other recommended amendments ended up in the draft rule appendix "Other
15 Amendment Recommendations On Which the Council Specifically Invites Comment," with one
16 exception. The Council did not include (in the draft rule or the appendix) the first recommended
17 new addition to Section 12.3, calling on the fish and wildlife managers to develop "standards for
18 conducting cumulative effects analysis."
19

20 **Comment**: The Confederated Tribes of the Umatilla Reservation objected to the deletion
21 of the phrase "usual and accustomed" in Section 12.1A to describe the tribal fishing and hunting
22 places to be protected from future hydroelectric development. "Usual and accustomed fishing
23 stations are those specifically reserved to the CTUIR under the Treaty of 1855, which is the
24 'supreme Law of the Land' according to the United States Constitution." The Tribes have no
25 objection to the addition of other descriptive or identifying language, phrases or terms for tribal
26 fishing stations, sites or locations. In addition, the reference to "hunting" places should not be
27 deleted. (232)
28

29 Comments from the Upper Columbia United Tribes, collectively and from one of its
30 member tribes, the Kalispel Tribe, suggested adding language to another of the standards in Section
31 12.1A.1 not recommended for amendment by the Shoshone-Bannock Tribes, for a purpose similar
32 to one of the recommended changes. The standard at issue requires assurance that new projects
33 will not degrade fish habitat or reduce numbers of fish in such a way "that the exercise of treaty
34 rights will be diminished." The UCUT Tribes would add language so that the standard would
35 protect "the exercise of treaty rights, **executive orders or aboriginal rights**" They would
36 make the same change to Section 12.1A.2, which addresses wildlife. The UCUT Tribes also
37 recommend that the Council add a standard that would require Bonneville customers who "jump the
38 BPA ship" to carry a portion of the Bonneville Fish and Wildlife Program debt. This could be
39 determined upon their past share of hydro power consumption from the Bonneville grid. (194,
40 196)
41

42 Bonneville noted that Section 12.1A.2 as proposed for amendment calls for Bonneville "not
43 to agree to acquire or wheel or otherwise support any hydroelectric development in the Basin"

1 without providing assurances that tribal hunting places will not be inundated and the project will not
2 degrade wildlife habitat or numbers such that the exercise of treaty rights will be diminished.
3 Bonneville then stated: "While these sentiments are laudable, it is unclear why these draft
4 amendments are in a Program meant to protect, mitigate and enhance fish and wildlife or how they
5 fulfill criteria for measures in sections 4(h)(5), (6), (7), and (8) of the Act. These issues seem to be
6 largely ones of national concern that should be addressed by Congress and the Administration. In
7 addition, a refusal to wheel resources may conflict with the requirements of the 1992 amendments to
8 the Federal Power Act." The comments would appear to apply to the changes proposed for
9 Section 12.1A.1 as well (and really to the whole of those two sections, whether existing or
10 amended language), although Bonneville applied the comments specifically only to the proposed
11 amendments to Section 12.1A.2. (229)

12
13 Public Utility District No. 1 of Okanogan County opposed the proposed changes to Section
14 12.1A. Since future hydro developers attempting to gain a FERC license must consider the
15 Council's program, it is "regulatory over-kill" to add in the prohibition on wheeling through or billing
16 credits from Bonneville. (222)

17
18 The City of Idaho Falls opposed the language recommended for addition to Section
19 12.2A.1 (which was not included in the draft rule, but instead in the appendix) in which Bonneville
20 would not provide billing credits for or wheel power from projects located within protected areas,
21 including transition projects. The City continues its pursuit of a FERC license for the proposed
22 Shelley Project on the Snake within a protected area, a "transition" project proposed to FERC
23 prior to the protected area designation. (215)

24
25 **Findings:** The Council adopted the recommended amendments to Sections 12.1A.1 and
26 12.1A.2, with some additional language. For the reasons noted in the comment from the Umatilla
27 Tribes, the Council decided to retain the reference in Section 12.1A.1 to the protection of "usual
28 and accustomed fishing places" from inundation. This phrase has particular meaning based on the
29 1855 treaties with the lower river tribes. The Council then added to this language the recommended
30 protection for "traditional or contemporary" tribal fish places, to similarly protect the important tribal
31 fishing places of the non-treaty tribes. The Council added that inundation will not occur "without
32 tribal approval," to make clear that it is the tribes that control what happens to these places.

33
34 By the use of the term "contemporary" fishing place, the Council means a fishing place that is
35 presently important to a tribe or tribes economically and/or culturally and that replaces usual and
36 accustomed or traditional fishing places that have been inundated or otherwise destroyed or
37 rendered useless by hydropower development. The tribe or tribes seeking protection from
38 inundation under this section for a "contemporary" fishing place must make a showing that the place
39 meets this definition.

40
41 In another, similar, modification to protect the rights of both treaty and non-treaty tribes, in
42 response to the comment from the UCUT Tribes, the Council altered the development condition

1 seeking assurance that a project will not degrade fish habitat or reduce numbers in such a way as to
2 diminish the exercise of treaty rights to also include "executive order tribal rights."
3

4 The Council made similar changes to the recommendation for Section 12.1A.2, concerning
5 the development conditions to protect wildlife.
6

7 To the extent Bonneville's comments question the Council's decision to adopt the
8 recommended (and added) language to protect the variety of tribal fishing and hunting places, the
9 Council understands that its obligation under the Act is to develop a program to protect, mitigate
10 and enhance fish and wildlife from the impacts of hydroelectric development in the Columbia basin.
11 The Council also has an obligation to adopt measures in the program that complement the activities
12 of the tribes, who are managers and co-managers of relevant fish and wildlife populations and fish
13 and wildlife habitat areas, and that are consistent with the treaty rights and other legal rights of the
14 tribes. Preventing the inundation of the important tribal fishing and hunting places and protecting
15 these populations and habitats from degradation clearly will assist in the protection and mitigation of
16 the fish and wildlife populations important to the tribes.
17

18 To the extent Bonneville's comments question the Council's decision to call on Bonneville
19 and the other agencies not to wheel power or otherwise support new hydrodevelopment that does
20 not satisfy these conditions, this comment goes to the heart of the existing program in Section 12,
21 and not to the recommended amendments. As the Council has explained in the previous
22 rulemakings that affected Section 12, especially the protected areas amendments, it does not make
23 sense to develop and implement a program to mitigate for the impacts of existing hydropower
24 development without taking steps to ensure that new development does not undermine the
25 protection and mitigation of the fish and wildlife resources. It is a logical and legally appropriate
26 method for the Council to adopt in the program to protect these resources by calling on Bonneville
27 and the other federal agencies not to take actions to approve, support or subsidize new
28 development that does not meet the protective development conditions. In the past, the main
29 advantage that a new hydropower development may have sought was to have Bonneville acquire
30 the power output of the new project. In the changing utility climate, such a developer may seek
31 most of all to have Bonneville wheel the power from the new hydroproject over the transmission
32 system that Bonneville owns and manages. Thus calling on Bonneville to wheel power from (or
33 otherwise support) only those projects that meet these development conditions to protect fish and
34 wildlife is a logical next step for the Council to take, well within the authority of the Council under
35 the Act. The issue of wheeling, and new hydropower development in general, may be of national
36 concern, but wheeling and the advantages it has for new hydropower development and the
37 implications for the fish and wildlife of the Columbia basin is also of regional concern and within the
38 Act's purposes and the Council's program authority.
39

40 The Council is not persuaded that the 1992 amendments to the Federal Power Act
41 preclude the Council from calling on Bonneville and the other federal agencies to attach
42 development conditions to protect fish and wildlife when approving requests to wheel power. The
43 1992 amendments did not expressly undermine or repeal the environmental protections in the

1 Federal Power Act. More important, nor did these amendments repeal the Council's authority
2 under the Northwest Power Act to develop a program to protect the fish and wildlife in the basin
3 from the impacts of hydropower development, or Bonneville's obligation to pursue its activities in a
4 manner consistent with the program, or the obligation of all the federal agencies to take into
5 consideration the Council's program to the fullest extent practicable.
6

7 In response to the comment from the Okanogan County PUD, it is true that private
8 hydroelectric development is subject to FERC approval, and that FERC must take into account the
9 Council's program to the fullest extent practicable (Sections 12.1A.1 and 12.1A.2 are two of the
10 program sections the Council would have FERC take into consideration). But all of the relevant
11 federal agencies have this obligation, and Bonneville must act in a manner consistent with the
12 program, which the Council understands as an even higher standard. In this situation, where all of
13 these agencies have an obligation to consider the program's efforts to protect fish and wildlife, the
14 Council sees no reason to limit its call not to support inappropriate hydropower development to
15 FERC alone.
16

17 The Council decided not to adopt the rest of the Shoshone-Bannock Tribes'
18 recommendation. This includes the Tribes' recommendation to amend Section 12.3A.1, which calls
19 on the federal project operators and regulators to "review simultaneously all applications or
20 proposals for hydroelectric development in a single river drainage." The Tribes recommended
21 specifying that this measure applies to "relicensings." The Council understands that FERC has
22 developed and is considering methods for cumulative impacts analysis and simultaneous review to
23 apply when appropriate in relicensing proceedings. The Council also understands that when the
24 Council adopted Section 12.3A.1, the term "all applications or proposals" was intended to be
25 broad and inclusive, and thus would apply to all types of FERC review proceedings.
26

27 With regard to the Tribes' recommendation to have the Council call for the fish and wildlife
28 managers to develop "standards for conducting cumulative effects analysis," such an analysis was
29 funded a decade ago by Bonneville, resulting in a report entitled "Methodological Guidance for
30 Assessing Cumulative Impacts on Fish and Wildlife," by Horak, Vlachos and Cline, Dynamic
31 Corporation, Bonneville Contract No. 14-16-0009-81-058. The Tribes and others should assess
32 whether the standards and methods in this report are sufficient and still useful, and, if not, they could
33 return to the Council with a recommendation for a new or supplemental evaluation.
34

35 The Tribes also recommended that the federal land managers and state and federal fish and
36 wildlife agencies consult with and incorporate the suggestions from the region's Indian tribes when
37 recommending terms and conditions to FERC on projects exempted from licensing. This
38 recommendation stems from the fact that the Federal Power Act allows the federal land managers
39 and state and federal fish and wildlife agencies to recommend project conditions that FERC
40 essentially must impose on the exempt projects, while not providing the same opportunity to the
41 Indian tribes. The Council understands the situation, but believes what the Council has already
42 adopted at Section 12.3B.3 is the approach the Council must take. This section calls on the land
43 managers and fish and wildlife agencies to incorporate the elements of the program into their

1 recommended terms and conditions to FERC. The Council's authority and influence on FERC and
2 the FERC process is limited to the Council's power plan and program; the Council can call for
3 FERC to take into consideration only the measures that have satisfied the Act's substantive and
4 procedural criteria. The Indian tribes have been major contributors to the development of the
5 program, and thus incorporating the elements of the program into the FERC terms and conditions
6 will to some extent incorporate the views of the Indian tribes. To further influence this process, the
7 tribes may seek to amend the Council's program with specific measures to protect, mitigate and
8 enhance fish and wildlife that they wish to see as terms and conditions on FERC projects. The
9 Council also believes that as a matter of comity and the proper regard for the management authority
10 and legal rights of the Indian tribes, the state and federal fish and wildlife agencies will consult with
11 the tribes regarding terms and conditions submitted to FERC.

12
13 Finally, the Council declined to adopt the Tribes' recommended revision to Section
14 12.2A.1, part of the Protected Areas program, to require that Bonneville not acquire power,
15 "provide billing credits or wheel" power from hydroelectric projects in protected areas, including
16 "transition projects." These could be substantial changes to the Protected Areas program,
17 especially, as illustrated by the comment from the City of Idaho Falls, with regard to the addition of
18 "transition projects." The Section 12.2A narrative already addresses transition projects, i.e.,
19 projects that had already invested substantial money and time in the project development and
20 approval phase before the Council adopted the protected area amendments. The Council expects
21 FERC and Bonneville to take the Council's program into account to the fullest extent practicable
22 when deciding how to deal with a transition project, but the Council is not prepared simply to apply
23 the protected areas prohibitions to transition projects without regard to equity.

24
25 For all these reasons, the Council concludes that what the Council adopted is more effective
26 than the recommendation for protecting, mitigating and enhancing fish and wildlife, 16 U.S.C.
27 §839b(h)(7)(C); more consistent with and a better complement to all the legal rights and activities of
28 the region's Indian tribes, 16 U.S.C. §839b(h)(6)(A), (D), (7)(B); and more consistent with the
29 legal authority and responsibilities of the Council and others as described in the Act and other
30 statutes.

1 **SECTION 13: AMENDMENT PROCESS**
2
3

4 **Program Section(s): 13.1F (photovoltaic fish screens)**

5 Source: Sidney N. Clouston, Jr.

6 Recommendation No.: 95-2/0005
7

8 **Recommendation:** Deferred from the anadromous fish rulemaking. Section 13.1F
9 calls for an expedited process for considering innovative approaches to “improving salmon
10 survival, especially in the mainstem.” Mr. Clouston recommended changing the quoted words
11 to “improving salmon survival anywhere that is appropriate to this mission and by reasonable
12 methods.” The purpose was to facilitate consideration of Mr. Clouston’s ideas concerning the
13 use of “Photovoltaic panels (PV) and related equipment” outside the mainstem to power “fish
14 screens in low stream flow locations” and other fisheries enhancement technology.
15

16 **Comment:** In a letter to the Council in early 1995, Mr. Clouston withdrew his
17 recommendation (119). He subsequently commented, nonetheless, that the Council should act
18 to “expedite innovation” by supporting new technologies such as photovoltaic powered pumps
19 and fish screens. (192)
20

21 **Findings:** The Council did not act on the recommendation, as it was withdrawn by Mr.
22 Clouston. The Council, in Section 13.1F continues to call for an expedited process for
23 encouraging innovative approaches to fish survival. While the language emphasizes mainstem
24 problems, new approaches that can help improve survival at any stage of the life cycle or that
25 solve protection and mitigation problems anywhere in the system at less cost are always
26 welcome.
27
28
29
30
31

1 The Eugene Water and Electric Board echoed the Public Power Council's comments,
2 noting that biologically sound cooperative projects are the key to solving the fish and wildlife
3 problems in the basin. EWEB noted that it had been working for years in partnership with other
4 agencies on cooperative projects for the McKenzie River habitat enhancements for bull trout
5 and native rainbow trout. (208)

6
7 **Response:** The Council welcomes and is encouraged by the comments of the Public
8 Power Council and the Eugene Water and Electric Board.

9
10
11 **RESIDENT FISH**

12
13 **Section 10.3A.3 -- implement Hungry Horse integrated rule curves**

14
15 The Bureau of Reclamation noted that "operational decisions for maintaining flexibility
16 for multiple use" make it difficult to anticipate when the integrated rules curves may be violated.
17 Thus the 60-day notice requirement in Section 10.3A.3 for operations that exceed limits "could
18 be difficult to meet under most operating circumstances. A more realistic prior notification
19 period would be 10 days." (206)

20
21 **Response:** While the Council received recommendations on and proposed revisions
22 for other Hungry Horse Dam measures, this section was not the subject of a recommendation or
23 noted for possible revision in the draft rule. Thus Reclamation's suggested change may be
24 beyond the scope of the rulemaking. The Council encourages Reclamation to continue to
25 explore ways in which it can operate with the 60-day notice requirement and to consult with the
26 Montana Department of Fish, Wildlife and Parks and the Confederated Salish and Kootenai
27 Tribes on this issue, returning in the future to the Council with recommendations for changes, if
28 any.

29
30
31 **Section 10.3A.15 -- Hungry Horse mitigation plan/determination of losses and**
32 **measures**

33
34 The Montana Department of Fish, Wildlife and Parks commented that this section,
35 which describes the particular project operations that were assumed in the determination of
36 losses and measures for the Hungry Horse mitigation plan, should be changed to reflect the
37 Council's adoption of the integrated rules curves. (202)

38
39 **Response:** This section also was not the subject of a recommendation or noted for
40 possible revision in the draft rule, and so any change based on the comments may be beyond
41 the scope of the rulemaking. The measure intends to describe what project operations formed
42 the baseline for the determination of Hungry Horse losses and measures, noting that if
43 operations change, the loss determination and measures may need to be revised. The section is

1 out-of-date, but its general point is still valid -- the loss assessment and measures were
2 determined based on assumptions about 1992 project operations, and those loss assessments
3 and measures may need to be re-evaluated if and when project operations are altered to reflect
4 the implementation of the integrated rule curves called for by the Council.
5
6

7 **Section 10.3B.2 -- implement Libby integrated rule curve**

8

9 The UCUT Tribes recommended amending this section to add the Kootenai Tribe of
10 Idaho to the list of entities that must approve a proposal to exceed the reservoir drafting limits
11 for power purposes. (194)
12

13 **Response:** While the Council received recommendations on and proposed revisions
14 for other Libby Dam measures, this section was not the subject of a recommendation or noted
15 for possible revision in the draft rule. Thus, the Tribes' suggested change may be beyond the
16 scope of the rulemaking. The Kootenai Tribe of Idaho is named in Section 10.3B.1 as one of
17 the parties to be consulted on the development of operating conditions to ensure sufficient flows
18 in Lake Kootenai and in the river below Libby Dam. The Council encourages the Tribe to
19 consult with the Montana Department of Fish, Wildlife and Parks and the Confederated Salish
20 and Kootenai Tribes on the issue of adding the Kootenai Tribe to the consultation in Section
21 10.3B.2, returning to the Council with recommendations for amendments if needed.
22
23

24 **Section 10.3D -- Big Fork Hydroelectric Project Resident Fish Mitigation**

25

26 The Confederated Salish and Kootenai Tribes commented that there had been little
27 progress with this measure, and asked the Council to "query Pacific Power and Light Company
28 as to their FERC schedule on this facility." (191)
29

30 **Response:** The Council will investigate the matter raised in this comment.
31
32

33 **Section 10.3E.1 -- Anderson Ranch Dam/minimum flow levels**

34

35 The Bureau of Reclamation commented that this measure was completed in March
36 1981. (206)
37

38 **Response:** This section was not the subject of a recommendation or noted for
39 possible revision in the draft rule, and so any suggested change is beyond the scope of the
40 rulemaking. More important, the Council views the measure as an on-going description of the
41 appropriate project operations -- to operate Anderson Ranch Dam to maintain the established
42 minimum flows. It may be that the Council does not need to include the measure in the program
43 in order to assist Reclamation in operating the project in this fashion. But even so, the Council is

1 not aware of any adverse impact from continuing to recognize this flow regime as part of the fish
2 and wildlife program.

3 4 5 **Section 10.5A.4 -- bull trout genetic sampling program/Flathead River Basin**

6
7 The Confederated Salish and Kootenai Tribes commented that this project has been
8 initiated, a preliminary report produced, and is considered an ongoing project by the
9 implementors. (191)

10
11 **Response:** The Council is encouraged that the project has been initiated and is now
12 on-going.

13 14 15 **Sections 10.6A.1, 10.6A.2 -- Clearwater River/rainbow trout stocking evaluation**

16
17 The Corps of Engineers commented that the Dworshak National Fish Hatchery releases
18 large numbers of juvenile steelhead into the lower Clearwater River, many of which are available
19 for harvest. In addition, Dworshak operations have provided cooler summer water
20 temperatures in the lower Clearwater, making the river more suitable for natural rainbow trout
21 production than prior to construction of the dam. Thus, “[w]hat is the rationale for funding
22 additional stocking by Bonneville? Also, do native rainbow trout populations exist in the lower
23 Clearwater and, if so, would additional stocking affect these fish?” (224)

24
25 **Response:** This section was not the subject of a recommendation or noted for
26 possible revision in the draft rule. Section 10.6A.1 calls on IDFG to provide information to the
27 Council on whether the habitat in Clearwater River below the North Fork is suitable for
28 stocking of rainbow trout, and if so, to provide a plan for stocking. IDFG is to coordinate the
29 development of the plan with NMFS and the Nez Perce Tribe. The concerns raised by the
30 Corps of Engineers should be addressed in the habitat evaluation and the development of the
31 stocking plan, and discussed in the coordination efforts. The Council revised Section 10.6A.2,
32 the funding measure for Section 10.6A.1, to call for funding of the fish stocking program only
33 upon the completion of the actions called for in Section 10.6A.1 and upon Council review and
34 approval of the habitat evaluation and stocking plan.

35 36 37 **Section 10.6D.1 -- Banks Lake/barrier net system**

38
39 The Bureau of Reclamation commented that arrangements to implement this measure
40 have been completed. (206)

41
42 **Response:** This section was not the subject of a recommendation or noted for
43 possible revision in the draft rule, and so any suggested change to update or delete is beyond

1 the scope of the rulemaking. In addition, the measure calls for Reclamation or appropriate
2 irrigation districts to fund maintenance of the net system, which is an on-going responsibility
3 unless the funding entities have funded a trust agreement for maintenance over the life of the
4 project. The Council would need more information about the arrangements for maintenance
5 funding before it deleted this measure.

6
7
8 **Section 10.7A.1 -- test vegetation plantings**

9
10 The Corps of Engineers commented that it appears plans are being made to plant
11 vegetation test plots using Corps lands without any discussion of the need to coordinate such
12 activity. If Corps project lands are used, coordination is a must and should be included as part
13 of this discussion. (224)

14
15 **Response:** The Council agrees that vegetation projects that use Corps lands should be
16 coordinated with the Corps. The Corps should raise this issue with the fish managers and
17 Bonneville as part of the implementation planning process.

18
19
20 **Section 10.8C.11 [now 10.8C.8] -- subregional process above Hells Canyon**
21 **Dam/resident fish substitution projects**

22
23 The Idaho Department of Fish and Game commented that this measure has proved to
24 be totally inadequate for meeting mitigation needs for resident fish upstream of Hells Canyon
25 Dam. Neither CBFWA nor the Council have the authority to bring either the private utilities or
26 the Bureau of Reclamation to the table to discuss meaningful mitigation, while Idaho Power
27 Company's obligations can be addressed through the Federal Energy Regulatory Commission
28 relicensing process. IDFG suggested that it "convene a work group of all interested parties in
29 the Snake Basin and start development of a comprehensive plan for management of the Snake
30 River. Leadership and organization for development of the plan could come from the currently
31 funded Idaho Water Rental Project." (227)

32
33 The Bureau of Reclamation commented that if additional projects proposed for
34 Reclamation funding come out of the process called for in this section, Reclamation will need
35 information (i.e., impact factors, dam and reservoir, and funding agreements) from the Council
36 by August to be able to begin the budget process to receive Congressional appropriations in
37 1998. (206)

38
39 **Response:** This section was not the subject of a recommendation or noted for
40 possible revision in the draft rule, and so any suggested change is beyond the scope of the
41 rulemaking. IDFG's suggestion for convening a work group for the development of a
42 comprehensive Snake River mitigation plan is worth consideration, and could begin within the
43 framework of the subregional process described in the section. IDFG should consult with the

1 other entities interested in the management of this area and may wish to return to the Council
2 with recommendations for additional program language and/or for Council assistance in
3 facilitating the convening of such a work group.
4

5 6 **WILDLIFE**

7 8 9 **Kalispel Tribe -- Pend Oreille Wetlands Mitigation Project (Flying Goose Ranch)**

10
11 The Kalispel Tribe continued to update the Council concerning implementation
12 problems with this project. The Tribe noted that it has been given conflicting information as to
13 the policy whether the land can be transferred into trust with the Bureau of Indian Affairs for the
14 Tribe. The Tribe asked the Council to set a deadline of August 31, 1995, for transfer of the
15 title, a date which coincides with Bonneville's estimate for completing transfer. (194)
16

17 **Response:** This section was not the subject of a recommendation or noted for
18 possible revision in the draft rule, and so the suggested change is beyond the scope of the
19 rulemaking. The Council will investigate the matter raised in the comment.
20

21 22 **RESIDENT FISH AND WILDLIFE**

23 24 **John Day drawdown**

25
26 At a public hearing in Hermiston, Oregon, a number of individuals and groups testified
27 and/or submitted written comments opposing the proposed John Day drawdown because,
28 among other reasons, the potential adverse effects on resident fish habitat and populations and,
29 especially, wildlife habitat and populations. Written comments include those from the Oregon
30 Water Coalition, Hermiston, Oregon; Richland Rod & Gun Club, Eastern Oregon Irrigators
31 Association, Columbia-Snake River Irrigators Association, the Benton County PUD, and the
32 City of Irrigon, Oregon. (203, 237, 240, 244, 245)
33

34 **Response:** The program sections concerning the proposed John Day drawdown
35 (Sections 5.4A.1, 5.4C) were not the subject of a recommendation or noted for possible
36 revision in the draft rule, and so any changes to that part of the program are beyond the scope
37 of the rulemaking. In the December 1994 rulemaking, the Council considered what is known
38 about the possible benefits and adverse impacts of a John Day drawdown, including potential
39 impacts on riparian habitat, fish and wildlife, and analyzed this issue in its findings. The program
40 called for a drawdown of John Day to minimum irrigation pool this year, and calls for a
41 drawdown of John Day to minimum operating pool in 1996, with a monitoring program to
42 evaluate the impacts on, among other things, resident fish and wildlife. Any further drawdown

1 awaits a decision by the Council, which called first for a comprehensive environmental review of
2 drawdown, including the potential impacts to resident fish and wildlife.

3
4
5 **Project impacts -- wetlands**

6
7 In the context of general comments approving of the Council's draft resident fish and
8 wildlife amendments, a planner for the Columbia River Estuary Study Task Force commented
9 generally on the fact that hydro-project development and operations leads to changing water
10 levels, and that lowered water levels have the effect of draining wetland areas that provide a
11 great deal of habitat and food for resident fish and wildlife. While there are several projects
12 proposed for the purchase and improvement of such lands, a great deal more effort needs to go
13 toward this purpose and there needs "to be a systems approach to looking at habitat and
14 restoration potential." Thus the Council should develop a program to identify areas which could
15 be used as mitigation areas and to create wetlands along rivers. "A program of acquisition or
16 conservation easements should be established by the [Council] to increase the overall amount
17 and quality of habitat along the Columbia River and its tributaries." (200)

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19 **Response:** Many of the fish and wildlife habitat projects in the program involve the
20 acquisition, creation, restoration, protection and/or enhancement of riparian areas and wetlands,
21 as is not surprising considering the nature of the issues the Council confronts in mitigating for the
22 impact of hydropower development and operations on fish and wildlife. The Task Force should
23 consult with others to determine whether there is a need to recommend to the Council that it
24 develop a more coordinated approach to wetland protection.

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