

Columbia River System Operation Review

Final Environmental Impact Statement

Appendix Q Regional Forum



US Army Corps
of Engineers
North Pacific Division



PUBLIC INVOLVEMENT IN THE SOR PROCESS

The Bureau of Reclamation, Corps of Engineers, and Bonneville Power Administration wish to thank those who reviewed the Columbia River System Operation Review (SOR) Draft EIS and appendices for their comments. Your comments have provided valuable public, agency, and tribal input to the SOR NEPA process. Throughout the SOR, we have made a continuing effort to keep the public informed and involved.

Fourteen public scoping meetings were held in 1990. A series of public roundtables was conducted in November 1991 to provide an update on the status of SOR studies. The lead agencies went back to most of the 14 communities in 1992 with 10 initial system operating strategies developed from the screening process. From those meetings and other consultations, seven SOS alternatives (with options) were developed and subjected to full-scale analysis. The analysis results were presented in the Draft EIS released in July 1994. The lead agencies also developed alternatives for the other proposed SOR actions, including a Columbia River Regional Forum for assisting in the determination of future SOSs, Pacific Northwest Coordination Agreement alternatives for power coordination, and Canadian Entitlement Allocation Agreements alternatives. A series of nine public meetings was held in September and October 1994 to present the Draft EIS and appendices and solicit public input on the SOR. The lead agencies received 282 formal written comments. Your comments have been used to revise and shape the alternatives presented in the Final EIS.

Regular newsletters on the progress of the SOR have been issued. Since 1990, 20 issues of *Streamline* have been sent to individuals, agencies, organizations, and tribes in the region on a mailing list of over 5,000. Several special publications explaining various aspects of the study have also been prepared and mailed to those on the mailing list. Those include:

- The Columbia River: A System Under Stress
- The Columbia River System: The Inside Story
- Screening Analysis: A Summary
- Screening Analysis: Volumes 1 and 2
- Power System Coordination: A Guide to the Pacific Northwest Coordination Agreement
- Modeling the System: How Computers are Used in Columbia River Planning
- Daily/Hourly Hydrosystem Operation: How the Columbia River System Responds to Short-Term Needs

Copies of these documents, the Final EIS, and other appendices can be obtained from any of the lead agencies, or from libraries in your area.

Your questions and comments on these documents should be addressed to:

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PREFACE: SETTING THE STAGE FOR THE SYSTEM OPERATION REVIEW

WHAT IS THE SOR AND WHY IS IT BEING CONDUCTED?

The Columbia River System is a vast and complex combination of Federal and non-Federal facilities used for many purposes including power production, irrigation, navigation, flood control, recreation, fish and wildlife habitat and municipal and industrial water supply. Each river use competes for the limited water resources in the Columbia River Basin.

To date, responsibility for managing these river uses has been shared by a number of Federal, state, and local agencies. Operation of the Federal Columbia River system is the responsibility of the Bureau of Reclamation (Reclamation), Corps of Engineers (Corps) and Bonneville Power Administration (BPA).

The System Operation Review (SOR) is a study and environmental compliance process being used by the three Federal agencies to analyze future operations of the system and river use issues. The goal of the SOR is to achieve a coordinated system operation strategy for the river that better meets the needs of all river users. The SOR began in early 1990, prior to the filing of petitions for endangered status for several salmon species under the Endangered Species Act.

The comprehensive review of Columbia River operations encompassed by the SOR was prompted by the need for Federal decisions to (1) develop a coordinated system operating strategy (SOS) for managing the multiple uses of the system into the 21st century; (2) provide interested parties with a continuing and increased long-term role in system planning (Columbia River Regional Forum); (3) renegotiate and renew the Pacific Northwest Coordination Agreement (PNCA), a contractual arrangement among the region's major hydroelectric-generating utilities and affected Federal agencies to provide for coordinated power generation on the Columbia River system; and (4) renew or develop

new Canadian Entitlement Allocation Agreements (contracts that divide Canada's share of Columbia River Treaty downstream power benefits and obligations among three participating public utility districts and BPA). The review provides the environmental analysis required by the National Environmental Policy Act (NEPA).

This technical appendix addresses only the effects of alternative system operating strategies for managing the Columbia River system. The environmental impact statement (EIS) itself and some of the other appendices present analyses of the alternative approaches to the other three decisions considered as part of the SOR.

WHO IS CONDUCTING THE SOR?

The SOR is a joint project of Reclamation, the Corps, and BPA - the three agencies that share responsibility and legal authority for managing the Federal Columbia River System. The National Marine Fisheries Service (NMFS), U.S. Fish and Wildlife Service (USFWS), and National Park Service (NPS), as agencies with both jurisdiction and expertise with regard to some aspects of the SOR, are cooperating agencies. They contribute information, analysis, and recommendations where appropriate. The U.S. Forest Service (USFS) was also a cooperating agency, but asked to be removed from that role in 1994 after assessing its role and the press of other activities.

HOW IS THE SOR BEING CONDUCTED?

The system operating strategies analyzed in the SOR could have significant environmental impacts. The study team developed a three-stage process - scoping, screening, and full-scale analysis of the strategies - to address the many issues relevant to the SOR.

At the core of the analysis are 10 work groups. The work groups include members of the lead and cooperating agencies, state and local government agencies, representatives of Indian tribes, and members

of the public. Each of these work groups has a single river use (resource) to consider.

Early in the process during the screening phase, the 10 work groups were asked to develop an alternative for project and system operations that would provide the greatest benefit to their river use, and one or more alternatives that, while not ideal, would provide an acceptable environment for their river use. Some groups responded with alternatives that were evaluated in this early phase and, to some extent, influenced the alternatives evaluated in the Draft and Final EIS. Additional alternatives came from scoping for the SOR and from other institutional sources within the region. The screening analysis studied 90 system operation alternatives.

Other work groups were subsequently formed to provide projectwide analysis, such as economics, river operation simulation, and public involvement.

The three-phase analysis process is described briefly below.

- **Scoping/Pilot Study** - After holding public meetings in 14 cities around the region, and coordinating with local, state, and Federal agencies and Indian tribes, the lead agencies established the geographic and jurisdictional scope of the study and defined the issues that would drive the EIS. The geographic area for the study is the Columbia River Basin (Figure P-1). The jurisdictional scope of the SOR encompasses the 14 Federal projects on the Columbia and lower Snake Rivers that are operated by the Corps and Reclamation and coordinated for hydropower under the PNCA. BPA markets the power produced at these facilities. A pilot study examining three alternatives in four river resource areas was completed to test the decision analysis method proposed for use in the SOR.
- **Screening** - Work groups, involving regional experts and Federal agency staff, were created for 10 resource areas and several

support functions. The work groups developed computer screening models and applied them to the 90 alternatives identified during screening. They compared the impacts to a baseline operating year -1992- and ranked each alternative according to its impact on their resource or river use. The lead agencies reviewed the results with the public in a series of regional meetings in September 1992.

- **Full-Scale Analysis** - Based on public comment received on the screening results, the study team sorted, categorized, and blended the alternatives into seven basic types of operating strategies. These alternative strategies, which have multiple options, were then subjected to detailed impact analysis. Twenty-one possible options were evaluated. Results and tradeoffs for each resource or river use were discussed in separate technical appendices and summarized in the Draft EIS. Public review and comment on the Draft EIS was conducted during the summer and fall of 1994. The lead agencies adjusted the alternatives based on the comments, eliminating a few options and substituting new options, and reevaluated them during the past 8 months. Results are summarized in the Final EIS.

Alternatives for the Pacific Northwest Coordination Agreement (PNCA), the Columbia River Regional Forum (Forum), and the Canadian Entitlement Allocation Agreements (CEAA) did not use the three-stage process described above. The environmental impacts from the PNCA and CEAA were not significant and there were no anticipated impacts from the Regional Forum. The procedures used to analyze alternatives for these actions are described in their respective technical appendices.

For detailed information on alternatives presented in the Draft EIS, refer to that document and its appendices.

WHAT SOS ALTERNATIVES ARE CONSIDERED IN THE FINAL EIS?

Seven alternative System Operating Strategies (SOS) were considered in the Draft EIS. Each of the seven SOSs contained several options bringing the total number of alternatives considered to 21. Based on review of the Draft EIS and corresponding adjustments, the agencies have identified 7 operating strategies that are evaluated in this Final EIS. Accounting for options, a total of 13 alternatives is now under consideration. Six of the alternatives remain unchanged from the specific options considered in the Draft EIS. One is a revision to a previously considered alternative, and the rest represent replacement or new alternatives. The basic categories of SOSs and the numbering convention remains the same as was used in the Draft EIS. However, because some of the alternatives have been dropped, the numbering of the final SOSs are not consecutive. There is one new SOS category, Settlement Discussion Alternatives, which is labeled SOS 9 and replaces the SOS 7 category. This category of alternatives arose as a consequence of litigation on the 1993 Biological Opinion and ESA Consultation for 1995.

The 13 system operating strategies for the Federal Columbia River system that are analyzed for the Final EIS are:

SOS 1a Pre Salmon Summit Operation represents operations as they existed from around 1983 through the 1990-91 operating year, prior to the ESA listing of three species of salmon as endangered or threatened.

SOS 1b Optimum Load-Following Operation represents operations as they existed prior to changes resulting from the Regional Act. It attempts to optimize the load-following capability of the system within certain constraints of reservoir operation.

SOS 2c Current Operation/No-Action Alternative represents an operation consistent with that specified in the Corps of Engineers' 1993 Supplemental

EIS. It is similar to system operation that occurred in 1992 after three species of salmon were listed under ESA.

SOS 2d [New] 1994-98 Biological Opinion represents the 1994-98 Biological Opinion operation that includes up to 4 MAF flow augmentation on the Columbia, flow targets at McNary and Lower Granite, specific volume releases from Dworshak, Brownlee, and the Upper Snake, meeting sturgeon flows 3 out of 10 years, and operating lower Snake projects at MOP and John Day at MIP.

SOS 4c [Rev.] Stable Storage Operation with Modified Grand Coulee Flood Control attempts to achieve specific monthly elevation targets year round that improve the environmental conditions at storage projects for recreation, resident fish, and wildlife. Integrated Rules Curves (IRCs) at Libby and Hungry Horse are applied.

SOS 5b Natural River Operation draws down the four lower Snake River projects to near river bed levels for four and one-half months during the spring and summer salmon migration period, by assuming new low level outlets are constructed at each project.

SOS 5c [New] Permanent Natural River Operation operates the four lower Snake River projects to near river bed levels year round.

SOS 6b Fixed Drawdown Operation draws down the four lower Snake River projects to near spillway crest levels for four and one-half months during the spring and summer salmon migration period.

SOS 6d Lower Granite Drawdown Operation draws down Lower Granite project only to near spillway crest level for four and one-half months.

SOS 9a [New] Detailed Fishery Operating Plan includes flow targets at The Dalles based on the previous year's end-of-year storage content, specific volumes of releases for the Snake River, the drawdown of Lower Snake River projects to near spillway crest level for four and one-half months, specified spill percentages, and no fish transportation.

SOS 9b [New] Adaptive Management establishes flow targets at McNary and Lower Granite based on runoff forecasts, with specific volumes of releases to meet Lower Granite flow targets and specific spill percentages at run-of-river projects.

SOS 9c [New] Balanced Impacts Operation draws down the four lower Snake River projects near spillway crest levels for two and one-half months during the spring salmon migration period. Refill begins after July 15. This alternative also provides 1994-98 Biological Opinion flow augmentation, integrated rule curve operation at Libby and Hungry Horse, a reduced flow target at Lower Granite due to drawdown, winter drawup at Albeni Falls, and spill to achieve no higher than 120 percent daily average for total dissolved gas.

SOS PA Preferred Alternative represents the operation proposed by NMFS and USFWS in their Biological Opinions for 1995 and future years; this SOS operates the storage projects to meet flood control rule curves in the fall and winter in order to meet spring and summer flow targets for Lower Granite and McNary, and includes summer draft limits for the storage projects.

WHAT FORUM ALTERNATIVES ARE CONSIDERED IN THIS TECHNICAL APPENDIX?

Seven alternatives for the Columbia River Regional Forum were evaluated in this appendix to the Final EIS. Briefly, they are:

- Forum 1 - Decisionmaking by the SOR lead agencies and a public involvement program conducted by the SOR agencies.
- Forum 2 - Decisionmaking by the SOR lead agencies and recommendation by an existing regional entity.
- Forum 3 - Decisionmaking by the SOR lead agencies and a recommendation by a new entity
- Forum 4 - Decisionmaking by a Federal Consultation Forum (all Federal agencies with jurisdiction) and a public involvement

program conducted by the Federal Consultation Forum.

- Forum 5 - Decisionmaking by a new entity and a complete public involvement program.
- Forum 6 - Decisionmaking by one Federal operating agency (e.g., Corps or Reclamation) and a public involvement program conducted by the Federal operating agency.
- Forum 7 - Decisionmaking by one other Federal operating agency (e.g., NMFS) and a public involvement program conducted by this Federal agency.

WHAT DO THE TECHNICAL APPENDICES COVER?

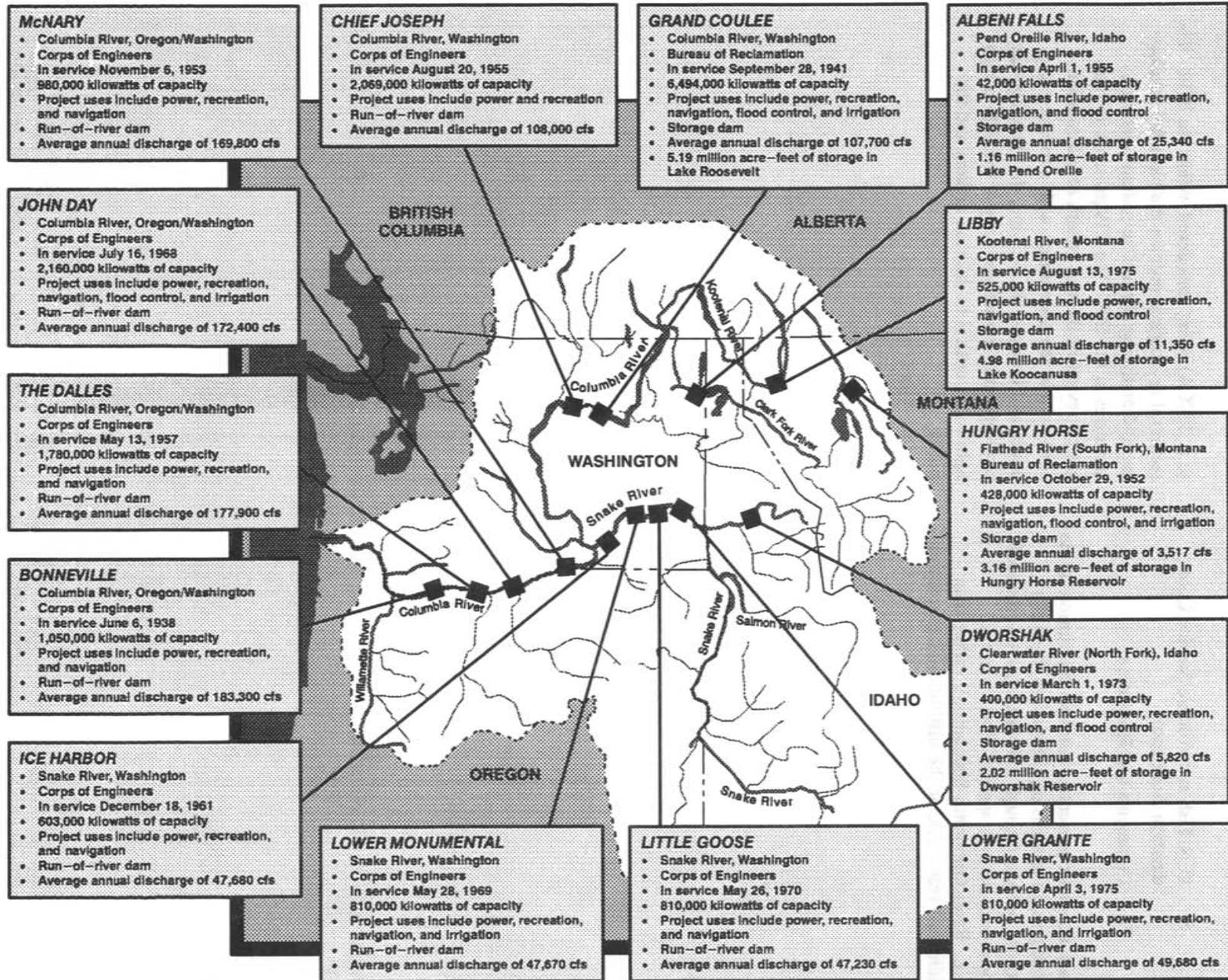
This technical appendix is 1 of 20 prepared for the SOR. They are:

- A. River Operation Simulation
- B. Air Quality
- C. Anadromous Fish & Juvenile Fish Transportation
- D. Cultural Resources
- E. Flood Control
- F. Irrigation/Municipal and Industrial Water Supply
- G. Land Use and Development
- H. Navigation
- I. Power
- J. Recreation
- K. Resident Fish
- L. Soils, Geology, and Groundwater
- M. Water Quality
- N. Wildlife
- O. Economic and Social Impacts
- P. Canadian Entitlement Allocation Agreements
- Q. Columbia River Regional Forum
- R. Pacific Northwest Coordination Agreement

- S. U. S. Fish and Wildlife Service Coordination Act Report
- T. Comments and Responses

Each appendix presents a detailed description of the work group's analysis of alternatives, from the scoping process through full-scale analysis. Several appendices address specific SOR functions (e.g., River Operation Simulation), rather than individual resources, or the institutional alternatives

(e.g., PNCA) being considered within the SOR. The technical appendices provide the basis for developing and analyzing alternative system operating strategies in the EIS. The EIS presents an integrated review of the vast wealth of information contained in the appendices, with a focus on key issues and impacts. In addition, the three agencies have prepared a brief summary of the EIS to highlight issues critical to decision makers and the public.



1 million acre feet = 1.234 billion cubic meters
 1 cubic foot per second = 0.028 cubic meters per second

Figure P-1. Projects in the System Operation Review.

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CHAPTER 1

NEED, PURPOSE, AND SCOPE

The System Operation Review (SOR) is currently developing a System Operating Strategy that will guide the physical operations of the Columbia River system. The SOR is also addressing the institutional arrangements that must be in place to make needed changes to the System Operating Strategy (SOS) in the future, or make interpretations of the strategy in the light of changing water conditions or river needs. For convenience, this future institutional arrangement is referred to as "The Columbia River Regional Forum," or simply "the Forum," even though the nature of this institution is still to be determined.

1.1 INTRODUCTION

The System Operation Review will address future decisionmaking about river system operations in the following ways: (1) by providing a technical baseline so that future evaluations of river operations will not have to start at the same level as did the SOR; (2) by providing a mechanism for evaluating alternative operational strategies in a reasonable time frame, and (3) by providing the public an opportunity to participate in both the analysis of alternatives and the decisionmaking process. The mechanism for evaluating future operating strategies, and providing the public the opportunity for participation in analysis and decisionmaking will be "the Forum."

This appendix and the Final Environmental Impact Statement (EIS) identify the Forum as an administrative process that will not result in impacts to the environment and will not require analysis in a NEPA context. The composition of and procedures followed by a decision making body cannot -- in and of themselves -- be used to predict a particular decision with definable impacts on the environment. Nevertheless, because of the relationship to the other SOR actions, the SOR lead agencies have prepared

this Technical Appendix to provide opportunities for review and comment on the Forum alternatives.

As part of developing the Forum alternatives, the SOR lead agencies have considered mechanisms for public involvement in decisionmaking related to issues of water quality and water development in other areas of the country. Although none relate specifically to river operation planning, they do provide an insight into different processes which elicit public input into agency decisions.

The recognition that a Forum was needed in the future came only after the agencies began to consider other operations problems. Initially, the SOR lead agencies were faced with the expiration of two important power-related contracts -- the Canadian Entitlement Allocation Agreement and the Pacific Northwest Coordination Agreement -- that required renewal and/or renegotiation. The utilities who are parties to these two agreements see them as directly linked. However, before these contracts could be acted upon, the agencies recognized a need to consider comprehensively the Columbia River system and its operation, evaluate various system operation alternatives, and develop a System Operating Strategy. The SOR was created to accomplish this task.

The SOR lead agencies then recognized that there was a final piece in the puzzle that needed to be addressed. Since conditions, knowledge or requirements will change in the future, there is a need for a method of periodically reviewing and updating the System Operating Strategy without having to repeat the intensive analysis that is currently underway. The Forum was identified to fill that need and forms a pivotal part of the overall SOR approach. It completes the review of hydro system and allows for efficient implementation of river operations in the future. The agencies are presenting this evaluation of the Forum concept in combination with and at the

same time as the other major SOR decisions so that the region can consider it as part of the SOR package.

1.2 ROLES AND AUTHORITIES OF THE SOR LEAD AGENCIES

The SOR lead agencies -- the Bonneville Power Administration (BPA), the U.S. Army Corps of Engineers (the Corps), and the U.S. Bureau of Reclamation (Reclamation) -- are, in effect, the "decision makers" on river operations. The Corps constructed and operates 12 of the Federal dams. Reclamation constructed and operates the other two. BPA acts as the marketing arm of the system, building and operating a regional transmission system, and selling the power from the Federal dams to more than 150 utilities.

Historically, each of these agencies had a primary mandate. BPA's primary historic concern was power marketing and delivery. The Corps' two historic concerns were flood control and navigation. Reclamation's primary mandate was water development, primarily for irrigated agriculture, but also for power, flood control, and recreation. Over time, however, each of these agencies has gained added responsibilities for other uses of the river: fisheries, wildlife, recreation, cultural resources, and all the other uses currently being evaluated as part of the SOR process. The result has been conflicts between the historic mandates and newer responsibilities, and occasionally, conflicts between the three agencies over how to interpret and prioritize the different uses of the river.

Although the SOR lead agencies are the primary decisions makers, other agencies and entities also play a role. A number of Indian tribes along the river have treaties with the Federal government that establish their rights to fisheries in the river. In the past few years the National Marine Fisheries Service (NMFS) has played a stronger role in decisions about river operations as part of its responsibilities to protect threatened or endangered anadromous fish species in the Columbia River system, and the U.S. Fish and Wildlife Service has a comparable role

protecting other species. The Northwest Power Planning Council also prepares regional plans for power, and fish and wildlife, that influence river operations. Other Federal and state agencies play some role in decisionmaking about river operations.

The SOR lead agencies are also not the only entities who generate hydropower on the Columbia River system. Several other power generating utilities make decisions that affect river operations. In 1964, the SOR lead agencies and 14 (later to become 15) power generating utilities entered into an agreement called the Pacific Northwest Coordination Agreement (PNCA). The purpose of this agreement is to jointly plan and coordinate the power operation of the system as if all the facilities belonged to a single owner. Operating the system in this manner produces a greater amount of power from the available water. This agreement expires in 2003, and its renewal or replacement is also being evaluated as part of the SOR. More information about the PNCA is in Chapter 2, Background. A complete analysis of PNCA alternatives is contained the PNCA Technical Appendix .

The PNCA provides something like the forum discussed in this document. Parties to the agreement can sit down at the same table and optimize power generation given specific water conditions and nonpower requirements at the various hydroelectric projects. However, no forum exists at which entities representing all the other uses of the river -- fisheries, flood control, navigation, irrigation, recreation, wildlife, cultural resources, etc. -- sit down at the same table with the power users and make joint decisions about how to operate the river.

In effect, the SOR lead agencies act on behalf of all the nonpower uses for Federal projects. The Corps and Reclamation, as operators of the Federal dams, develop operating requirements on behalf of the nonpower uses at their projects. BPA participates with the Corps and Reclamation in determining these requirements. The operators can unilaterally determine operations on the Federal system for nonpower uses; they cannot unilaterally determine the operation at non-Federal facilities.

The SOR lead agencies effectively allocate the water and flows for protection of nonpower uses first, then the remaining resources are planned for under the provisions of the PNCA, which is collaborative with other non-Federal utilities and optimizes power generation and reliability. Of course, when the SOR lead agencies act on behalf of the nonpower uses they are themselves constrained by their own mandates, the authorizing legislation for each Federal facility, treaty obligations with Indian Tribes and with Canada, and various obligations under Federal laws and regulations.

1.3 THE NEED FOR A RIVER OPERATIONS FORUM

The need for the Columbia River Regional Forum is to find a better way to integrate multiple-use requirements into Federal decisions on the operation of Federal dams in the Columbia River system.

The current situation is one where the resources of the Columbia River system are unable to meet all the desired uses of the river system. This sets up intense competition between groups and interests representing the uses of the system. The result is a decisionmaking process that can at times be bitterly contested. Decisions are often challenged in the Courts or appeals are made through other processes. Decisionmaking is extremely complex, and although the competing concerns ultimately funnel through the SOR lead agencies, the way decisions are reached is not always visible or understood by the interests or affected parties.

Until recently, some interests perceived the PNCA as managing all river operations, or at least making decisions that go far beyond power generation and affecting other uses of the river. In the absence of an equivalent mechanism for all users to sit down at the table, the PNCA looked like an exclusive club in which the "real" decisions got made, although this was not the case. However, when NMFS listed sockeye, and subsequently, chinook, under the provisions of the Endangered Species Act, consultations between the operating agencies (i.e., the SOR

lead agencies) and the Federal fisheries agencies (NMFS and USFWS) assumed dramatic new importance in all operations planning.

Even prior to the ESA listing, power generators were often not satisfied with the decision making process because it did not result in predictable decisions, and was very complex. The ESA consultations have added to the unpredictability and complexity. This creates problems for power users, because decisions about new power sources often take 5 to 10 years of lead time. If decisions about river operations can dramatically alter the amount of power generated by the river system from year to year, utility planners find themselves in a quandary about how to plan for meeting the future power needs. Historically, hydropower has been the cheapest form of power, so utilities are reluctant to acquire other sources of power to replace hydropower unless they know for certain that the hydropower resources will not be available in the future.

The power generators also share a problem with other river users -- the decisionmaking process has become so complex that participating in all the various aspects of the decisionmaking process can be very time-consuming and expensive. All the groups see themselves as benefiting from a streamlined system -- although not if that streamlined system results in decisions that negatively affect their interest.

This last comment suggests that the ultimate issue is *how the benefits of the river are allocated*. As the pressures on the river system continue to grow, this struggle for control of these valuable resources will become even more intense. Without an effective forum that is accepted as legitimate by all the parties as the place where these competing needs can be addressed and resolved, decisionmaking is likely to become even more complex and adversarial. The costs of participating in decisions will continue to increase. There will be continued unpredictability. The continuing conflict may result in fewer benefits from the Columbia River system for the region.

1.4 PURPOSE AND OBJECTIVES

1.4.1 Purpose

The fundamental purpose of the Forum is to have a credible and legitimate mechanism for making future decisions about the System Operating Strategy and interpretations of that strategy. A successful Forum would provide:

- An open, visible, and responsive means to enable the best possible decisions regarding project operations.
- Ready access to the planning process.
- Flexibility to respond to changing needs.
- Procedures that are clear and easy to understand.
- A means to develop consensus on methods for evaluating system operations.
- A means to resolve conflicts among all parties.
- A way to integrate feedback from single-resource management mechanisms (such as the Pacific Northwest Coordination Agreement and the Coordinated Plan of Operations), so these can operate effectively within a set of balanced system priorities (a Strategy).
- A means to improve the efficiency of water and energy use and to optimize management of the system for all of its purposes.

1.4.2 Objectives

The attributes discussed above form the basis for several objectives established by the SOR lead agencies for the Forum:

- **PARTICIPATION:** Since the ultimate issue is how decisions are made, and which uses are affected, all parties must have access to the decisionmaking process if the Forum has any hope of legitimacy. To be credible, the Forum must ensure that:

- All parties are “at the table”, whatever the table looks like.
- The costs of participating in the decision are not so high that some groups (uses) are placed at a significant disadvantage.
- The technical analysis upon which decisions are based is not biased in favor of some of the uses, and is viewed as objective and adequate by all the major parties.

- **VISIBILITY:** The Forum must ensure that decisions are arrived at in a way that provides visibility to how and why the decision was made. Decisions must be made in the “sunshine glare” of a full public process.
- **INTERACTION:** The Forum must provide a setting in which the parties talk to each other, not just to the SOR lead agencies. This kind of interaction would be helpful in building a consensus.
- **TIMELINESS:** The Forum must be able to make decisions in a timely manner to meet the real-time demands of river operations.
- **ACCOUNTABILITY:** The Forum must provide accountability, so that it is clear who makes the decision, and who bears responsibility for the consequences of decisions.
- **ADAPTABILITY:** The Forum must provide a mechanism by which changes in strategy can be made based on new knowledge about the interaction between river operations and fish survival.

1.5 SCOPE

The scope of the Forum defines: (1) which Federal projects in the system are included, (2) the timing of the decisions being made, and, (3) the uses of the river that will be taken into account in decisions. The scope is as follows:

1.5.1 System

The geographic reach is defined by the 14 Federal projects within the scope of the System Operation Review. These include the following lower, mid, and upper Columbia River and Snake River mainstem dams and reservoirs and the major upstream storage reservoirs:

Table 1-1. Federal Dams on the Columbia River System

Libby	Hungry Horse
Albeni Falls	Grand Coulee
Chief Joseph	Dworshak
Lower Granite	Little Goose
Lower Monumental	Ice Harbor
McNary	John Day
The Dalles	Bonneville

Decisions resulting from the Forum would involve operations of these projects and system operations as affected by operation of these projects. Expansion of the Forum scope to include other Federal projects in the Columbia River basin is a future possibility.

1.5.2 Timing of Decisions

The Forum would be structured to enable annual decisions about river operations in conjunction with river operations planning activities and to revise long-term operating strategies. The Forum may also establish a framework for decisions that must be made in a time frame shorter than an annual basis, such as seasonal real-time operations decisions.

1.5.3 Uses

Any activity or use directly affected by operations of the 14 Federal projects is appropriate for consideration in the Forum. Specifically, there are ten major uses of the system being addressed in the SOR evaluation: anadromous fish, cultural resources, flood control, irrigation, navigation, power, recre-

ation, resident fish, water quality, and wildlife. Economic and social aspects would be considered as well, including impacts upon people who live near reservoirs.

1.5.4 Legal Authorities and Obligations

The Forum would continue to operate under all existing legal authorities and obligations including but not limited to the authorizations of the various projects, the Pacific Northwest Power Planning and Conservation Act, the National Environmental Protection Act, and the Endangered Species Act.

1.5.5 Additional Future Responsibilities

Currently there are regional bodies developing plans for improving water quality in the Columbia River Basin. At the present time, water quality is outside the scope of the Forum. However, review comments from water quality planning agencies suggest that in the future it might be desirable to combine water quality planning with river operations planning. If a decision is made to integrate these two types of planning, the Forum might be considered as one of the alternative decision making bodies.

1.6 HISTORY OF REGIONAL PLANNING EFFORTS

There has been a considerable history of regional planning related to the Columbia River. In the 1930s, as a result of the Depression, people turned to government to help with the dire economic conditions. The Roosevelt Administration set up the means by which the federal government could play a stronger role in planning and regulating the use of the nation's natural resources. In 1934, as part of an effort to plan for the use of natural resources, Roosevelt established the National Planning Board (NPB). One of the functions of this board was to coordinate the work of regional and state resource planning agencies, including coordinating the work of the President's Committee on Water Flow.

The same year, the Pacific Northwest Regional Planning Commission (PNRPC) was formed. Its purpose was to provide federal relief from acute economic distress. The PNRPC in turned encour-

aged the establishment of state planning boards. The PNRPC itself was composed of representatives from the state boards from Washington, Oregon, Idaho, and Montana. The Federal agencies were not members of the Commission, but their field staff provided staff and technical support for the Commission's technical committees. Ultimately the activities of the PNRPC went beyond public works to include comprehensive interagency planning on water resources, land use, and reclamation. The Commission played an important role in identifying many of the projects on the Columbia River, and influenced the project purposes served by those projects.

In 1943, Congress removed all funding for national or regional planning agencies. The nation was at war, and attention was not on resource planning. However, the Federal agencies recognized the need for interagency coordination, and in the same year formed a voluntary organization composed of the Departments of War, Interior and Agriculture, and the Federal Power Commission. This entity was known as the Federal Inter-Agency River Basin Committee. It, in turn, created a regional component, the Columbia Basin Interagency Committee, in 1946. It went out of existence in 1967, with creation of the Pacific Northwest River Basins Commission.

In 1965, Congress passed the Water Resources Planning Act of 1965. This Act established a Water Resources Council, to develop standards for water resources planning, and also provided for the establishment of river basin commissions. The river basin commissions were given responsibility for comprehensive planning including navigation, power, flood control, reclamation, fish & wildlife, and other uses. Ultimately seven river basin commissions were established. The Pacific Northwest River Basins Commission was established in 1967. It had respon-

sibility not only for comprehensive planning for the Columbia River Basin, but also for the Pacific Northwest river basins which discharge directly into the ocean.

The chair of the Commission was an independent individual appointed by the President. The composition of the Commission included all the concerned Federal agencies and six states, Idaho, Montana, Nevada, Oregon, Washington, and Wyoming (Wyoming was active on the Commission, but Nevada was not). Initially the concerned Federal agency representatives were Agriculture (Soil Conservation Service, Forest Service, Economic Research Service), Interior (Reclamation, U.S. Fish and Wildlife Service), Federal Power Commission, Army, Transportation, and Housing and Urban Development. When the National Marine Fisheries Service became part of the Department of Commerce, it also had a representative, as did the Environmental Protection Agency, when it assumed responsibility for water quality. When the Bonneville Power Administration was moved out of the Department of Interior into the Department of Energy, the Department of Energy was also represented.

In 1981, the Reagan Administration removed all funding for the Water Resources Council and the seven river basin commissions. However, the law itself was not repealed. Thus the Commission could be reactivated by being funded and by having the President appoint a Chair. Many view the Northwest Power Planning Council, established in 1981, as the successor organization for regional planning. However, the Council does not possess the broad comprehensive planning authority that the Commission held, and its governing body contains representatives only of the states.

CHAPTER 2

BACKGROUND

2.1 WHAT KINDS OF DECISIONS ARE BEING MADE AND HOW ARE THEY MADE

2.1.1 Introduction

In order to understand how the Forum may facilitate future decisions, it is helpful to understand the different kinds of decisions that are being made and how these decisions are currently made. The decisions are summarized - in simplified form - below, along with a discussion of the current process the operating agencies use for resolving each.

Each Federal project within the scope of the SOR was constructed under specific Congressional

authorizing legislation identifying the major intended uses for each project, as shown in Table 2-1. All of those projects were specifically authorized for hydropower production, most were authorized for navigation, and some were also authorized for flood control and irrigation. The seasonal abundance of water and the predictability of its use allows a project to support other uses as well, but only after its authorized purposes are met. General Congressional authorization allows for such uses as water quality, fish and wildlife, recreation, and municipal and industrial water supply.

Table 2-1. Project Purposes of Federal Dams

Project	Authorized Project Purposes	Authorized	Authority	Document
Libby	F, P	1950	PL 51-516	HD 531
Hungry Horse	F, P	1944	PL 78-329	HR 6732
Albeni Falls	F, P	1950	PL 81-516	SD 9
Grand Coulee	F, P, I	1935	PL 74-409	HR 3570
Chief Joseph	P	1946	PL 79-525	HD 693
Dworshak	F, P, N	1962	PL 87-874	HD 403
Lower Granite	P, N	1945	PL 79-14	HD 704
Little Goose	P, N	1945	PL 79-14	HD 704
Lower Monumental	P, N	1945	PL 79-14	HD 704
Ice Harbor	P, N	1945	PL 79-14	HD 704
McNary	P, N	1945	PL 79-14	HD 704
John Day	F, P, N	1950	PL 81-516	HD 531
The Dalles	P, N	1950	PL 81-516	HD 531
Bonneville	P, N	1935	1935 R&H Act	Sen. Com. Print, 73rd Cong, 2nd

Legend: F - Flood Control
P - Power
N - Navigation
I - Irrigation

While the authorizing legislation stipulated intended use, it seldom contained explicit provisions for operating the individual projects for their coordinated operation within the total system. However, considerable information is normally provided in agency feasibility reports to the Congress which form the basis for the recommendation to authorize a particular project. Beyond those reports, the Corps and Reclamation are responsible for deciding how to operate their projects based on principles of multiple-use operation, their agency charters, operation experience, and public concerns. Overall operation plans are contained in project operation and water control manuals prepared for each project.

Since the Bureau and Corps have some flexibility in how they operate the projects, and there is increasing competition for the benefits of the projects, there is a need to define more precisely how the projects will be operated in the future. The System Operating Strategy will define how the trade-offs between all the uses will be handled by defining the operation of each project within a relatively narrow band. The question that remains is how decisions are made within that band.

Within the guideline of the authorizing legislation and the physical capabilities of the fourteen dams, there are three levels of decisionmaking, ranging from very broad policy decisions to very specific, immediate kinds of decisions.

The Forum will potentially address all three levels of decisionmaking identified in Figure 2-1. The Forum could:

- (1) Be the mechanism for making revisions to the System Operating Strategy;
- (2) Be the vehicle for developing the Annual Operating Plan; and
- (3) Provide a mechanism by which the parties can review actual operations, or request changes in the annual operating plan in response to mid-year conditions.

2.1.2 System Operating Strategy

The first level of decisionmaking is to determine a System Operating Strategy. The strategy establishes a broad operating regime of storage elevations, outflows and their timing designed to balance the multiple uses of the river. There has yet to be a formal strategy published by the SOR lead agencies. The current operating strategy "exists" as a collection of multiple-use requirements for individual projects and several system objectives that are met through these project requirements. Examples of system objectives are power production, flood control and anadromous fish flows, irrigation, navigation. The SOS will be one of the major products of the System Operation Review. Once the SOS is in place, there would also have to be considerable operational planning between all the parties to ensure that the strategy can be implemented.

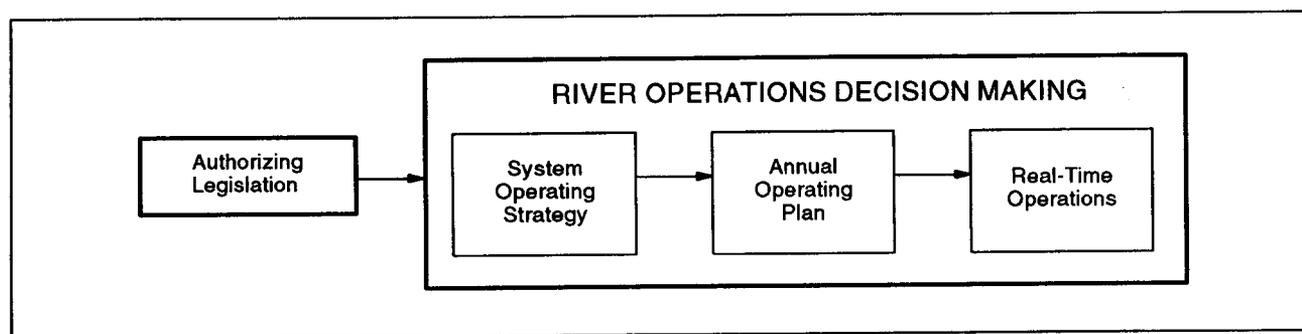


Figure 2-1. Levels Of Decision Making

The SOS is currently being determined as part of the SOR. This is a 5-year multi-million dollar study. One of the goals in establishing the Forum is to provide a mechanism for revising the strategy that won't require such an immense effort. The goal is that the SOR EIS will consider a broad enough range of alternatives that future revisions to the strategy will be covered by the SOR EIS, possibly with a new Record of Decision or a Supplemental EIS.

2.1.3 Annual Operating Plan

But even when there is an overall strategy, it must be interpreted in light of actual hydrologic conditions, such as the amount of storage in the reservoirs, the amount of snowpack, the water supply forecast, etc. Each year, a year in advance, annual operating plans are developed for power and non-power uses.

Figure 2-2 describes the way decisions are currently made to reach an annual operating plan. In the present decisionmaking process, the SOR lead agencies act as the decision maker. As discussed earlier, each of the Federal facilities was authorized by Congress, and that authorizing legislation established some broad, general guidelines. The legislative mandates of the SOR lead agencies also established some requirements for flows and elevations necessary to meet needs and authorized purposes. Decisions also occur in response to advice provided by the Northwest Power Planning Council (NPPC), and discussions and consultations with the National Marine Fisheries Service (NMFS) and the various river users, as discussed below. The agencies must comply with the provisions of the Pacific Northwest Power Planning and Conservation Act, the National Environmental Protection Act, and the Endangered Species Act.

The NPPC consists of eight members, two from each Northwest state, appointed by the Governors of the states. One of the primary responsibilities of the NPPC is to develop a regional fish and wildlife program. The NPPC goes through an extensive public process as part of developing the plan. This plan is advisory to the SOR lead agencies.

The NPPC has established a Fish Operations Executive Committee (FOEC) which develops an annual

plan for implementation of mainstem fish passage measures to implement the Council's Fish and Wildlife Program. Membership on the Fish Operations Executive Committee includes the NPPC, the Federal operating agencies, the Federal fisheries agencies, power users, operators of non-Federal dams, and environmental groups. In the event the Fish Operations Executive Committee is unable to reach consensus, the Council resolves disputes.

The 1995 Biological Opinion established a Technical Management Team to advise the operating agencies on dam and reservoir operations to help optimize passage conditions for juvenile and adult anadromous salmonids. The Technical Management Team consists of representatives of the National Marine Fisheries Service (NMFS), U.S. Fish & Wildlife Service (USFWS), Bureau of Reclamation (Reclamation) Corps of Engineers (Corps), and Bonneville Power Administration (BPA). The Technical Management Team has a Technical Group, composed of technical specialists, and an Executive Group composed of senior managers to assist in resolving issues on which the Technical Group cannot reach consensus. Each year by 15 April, and preferably before flow augmentation normally begins in the Snake River, the Technical Management Team will prepare a Water Management Plan. This plan will form the basis for consultations between the operating agencies and NMFS and USFWS.

Discussions may also occur between the SOR lead agencies and any of the agencies or groups representing uses of the river. Each group may have proposals for how it would like to see the river operated to maximize its interests.

Based on all these discussions and negotiations, the Corps and Reclamation determine the nonpower requirements and communicate these to numerous entities affected by system generation requirements. The SOR lead agencies then work with the fisheries agencies and tribes to develop a Coordinated Plan of Operations (CPO) for management of the nonpower resources, and also work with the other PNCA entities to develop an annual plan for management of the power resources.

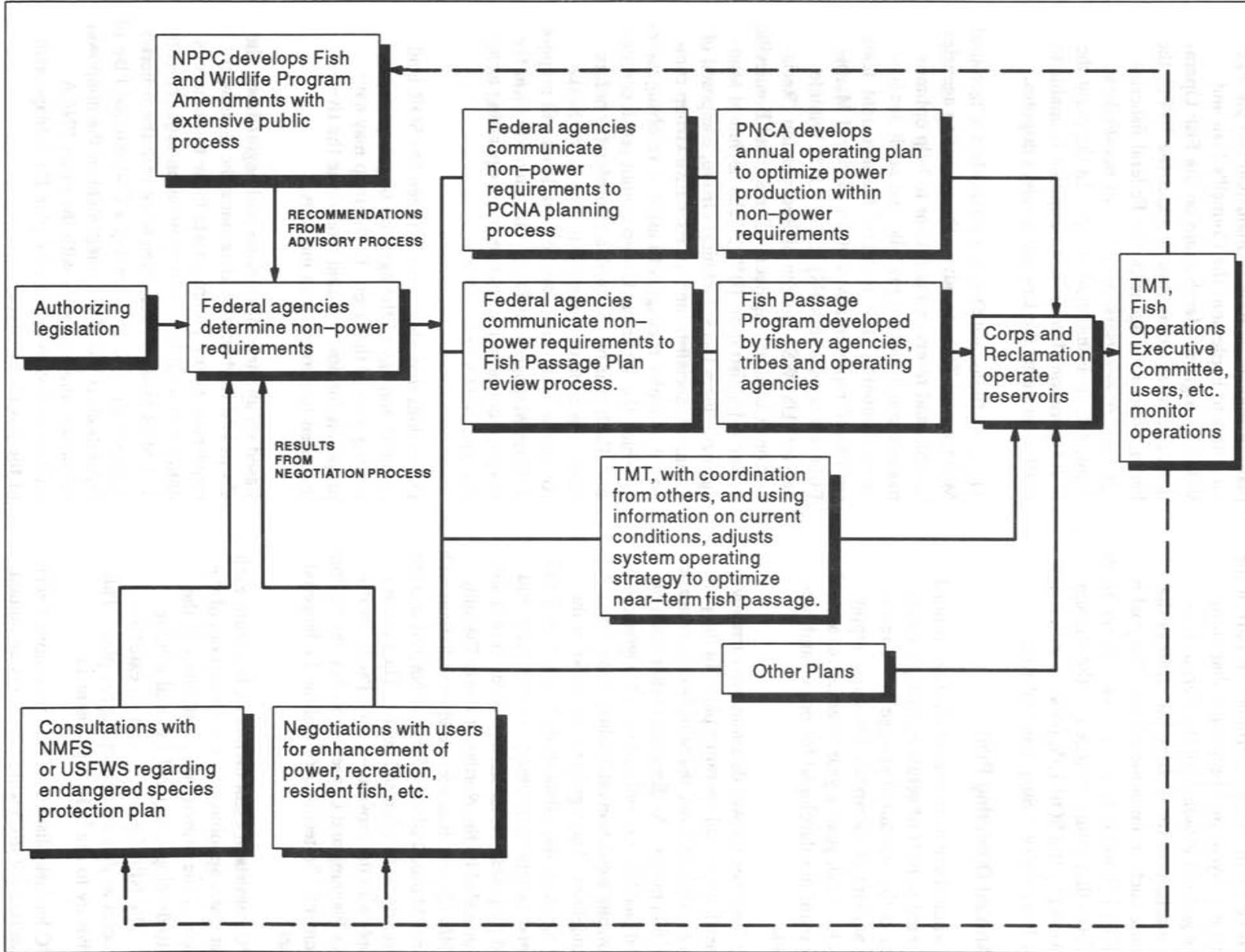


Figure 2-2. Columbia River Operations Decision Process

The Corps and Reclamation then operate the dams themselves. When decisions come up that require consultation, the SOR lead agencies consult with either the PNCA entities, the Technical Management Team, the Fish Passage Center or other interested and affected parties.

2.1.4 Real-Time Operations

The actual operations take place in what is described as “real time,” that is, decisions must be made in a few hours, days, or at most a few weeks. Operators regulate the system in an effort to satisfy all the power and nonpower purposes contained in the strategy and annual operating plan. Decisions may need to be made to respond to in-stream conditions for fish or navigation, or to take advantage of an opportunity to make a profitable power sale. Boat- ing accidents, generator outages, short-term climatic events, even the timing of recreational events can influence operational decisions.

As described above, “real-time” operations decisions are made in a short time, ranging from several hours to several days, or sometimes, several weeks. All of these decisions are guided by annual operating plans and a body of agreements made between the various parties. Throughout the year, “users” of the river may request a specific operation. For example, an operation might be requested to take advantage of a profitable opportunity to sell power outside the Region, thereby reducing the cost of power to Regional power users; or fisheries agencies might request additional flows to aid with providing optimal conditions for fish runs. Additional flows may be needed to permit navigation, or even to get a barge off a sandbar. Flows may be reduced to assist finding victims of drowning accidents.

Once a request is made, the operators review the request to determine whether it is consistent with the annual operating plans, whether it could have impacts on other uses, and whether there would have to be any consultation with or between the affected parties. The operators know who the other parties are, and what their interests will be. If the interests of other parties could be affected, the operators usually contact them for a discussion of potential impacts prior to making decisions.

During the fisheries season, the Technical Management Team will meet weekly to examine and recommend flow quantities on the Federal Columbia River Power System. If the official forecast indicates that flows will not meet the flow objectives described in the NMFS Biological Opinion, the Technical Management Team may either recommend lower summer reservoir elevations or recommend establishing an alternative flow objective, taking into account the ability to achieve flow objectives later in the current or future years. The Technical Management Team meetings will be open meetings, and individuals may provide information or recommend operations to the Technical Management Team. In particular, Operations Requests from the Fish Passage Center will be sent to the Technical Management Team for review. The operating agencies will make an agency decision on the recommendation(s) and will provide the decision, along with a written description and justification, to the Technical Management Team, and to the Northwest Power Planning Council for distribution to its Fish Operations Executive Committee (FOEC). The turn-around for these decisions will be very rapid, often less than 24-hours, since the decision will be implemented beginning the following week.

Because of the time urgency of real-time operations, the operators must have the authority to make the decisions. There may be questions to be resolved between the parties after the decisions are made, but the operators will do the best they can to consult with directly affected parties within the time constraints.

2.1.5 Monitoring

Impacts resulting from decisions are continually monitored by the SOR lead agencies and others. Many impacts are identified by the SOR lead agencies. The agencies also receive both formal and informal comments and suggestions on operations through letters, public meetings and consultations. Both the Fish Operations Executive Committee and the Technical Management Team play a role in monitoring the operations, with the Fish Operations Executive Committee providing recommendations to the NPPC, and the Technical Management Team to

NMFS and USFWS. These recommendations are considered in making future strategy, operating plan and real-time decisions. The membership of this group consists of representatives from the SOR agencies, NPPC, fish agencies and tribes. The Fish Operations Executive Committee monitors the operation of the Columbia River system. Its recommendations are considered in making future strategy, operating plan and real-time decisions.

2.2 RELATIONSHIP OF FORUM TO OPERATIONS

2.2.1 Introduction

The Forum could relate to each of the major stages of Federal operations, or be the arena or process in which to discuss changes to the SOS, the Annual Operating Plan and/or real-time operations.

2.2.2 System Operating Strategy

The SOS is intended to be a long-term strategy for Federal project operations. It should establish general policies on operations and define the limits in project operations. Some amount of operational flexibility should remain even after the strategy is applied to various Federal projects. Many people view the SOS as a set of nonpower requirements as this term is defined in the current PNCA. As such, the SOS would define project specific, multiple-use requirements that must be met. These requirements are usually expressed as minimum or maximum flow requirements and minimum or maximum reservoir elevations. In combination, they form a band within which actual real-time operations must fall. Different strategies provide different "band" widths, resulting in various amounts of flexibility. These requirements would likely persist long-term and would not be related to water conditions. The SOS would become the basis for the SOR lead agencies' submittal of nonpower requirements to the PNCA.

The Forum's primary activity would be focused on the SOS, specifically in reviewing the combination of long-term project-specific operating requirements that result in planned system operation over multiple years. The review process could occur as frequently

as annually. Any changes resulting from the review would be reflected in the SOS and continue into the future until such time the Forum made further alterations or adjustments.

2.2.3 Annual Operating Plan

The annual operating plan translates the general terms of the System Operating Strategy into realistic plans given the water conditions on the river. It recognizes unique seasonal demands of river uses and is based on current system capabilities. It may result from discussions with interested regional parties, from experiences of the preceding year, or from formal consultations required of the operators as part of the Endangered Species Act or other regulations. Actual operations would be limited within the flexibility afforded by the SOS.

The Forum may or may not directly affect the annual operating plan. To the extent that appropriate issues are raised and resolved within the Forum process and those operational changes do not go beyond what is allowed in the SOS, then such changes could be made. The Forum would be contributing directly to the development, and more importantly, to the implementation of the annual operating plan. Issues or suggestions that exceed the SOS could be considered part of the general SOS review as mentioned above, but would not affect the planned operations for that year. The actual operation of the Federal system would remain with the present operators.

2.2.4 Real-Time Operations

Real time operations are, by their very nature, reactive to specific conditions and needs. As such, the time required between the recognition of a problem to an action taken to correct the problem is quite short. Any process contemplated for the Forum would in most cases extend past the time when action is necessitated. Nevertheless, the operators have some flexibility, within a relatively narrow band, and there is always interest in whether the operators' decisions favored some uses over others. While the Forum would not participate in the real-time decision, it could evaluate the action taken and consider whether provisions for similar

events should be included in either the SOS or future annual operating plans. The SOR lead agencies were given the responsibility to operate the Federal system and the Forum would not affect this responsibility.

2.3 RELATIONSHIP TO OTHER PROCESSES

Decisions about a Forum are linked to two other processes being considered as part of the System Operations Review: the consideration of alternatives to the Pacific Northwest Coordination Agreement, and renewal of the Canadian Entitlement Allocation Agreements. It is also linked to other processes ultimately affecting how operational planning and implementation is performed for the Columbia River system: the Northwest Power Planning Council's Power Plan and Fish and Wildlife Program, and Endangered Species Act recovery planning and consultation. The PNCA and CEAA are evaluated in detail in other technical appendices as proposed actions in the SOR. A brief discussion of these processes is provided below. The other processes are not specifically a part of the SOR but relate directly to the selection of a SOS and affect operations covered by that SOS.

2.3.1 Pacific Northwest Coordination Agreement

As described earlier, the PNCA is an agreement between the SOR lead agencies and the other utilities which generate power from the operations of the Columbia River system. The purpose of the agreement is to coordinate the power planning of the Columbia River system as if it were owned and operated by a single owner. The net effect of the agreement is that more power is generated from the combined system than would be generated if each entity operated its own facilities in isolation from the others. This agreement was signed in 1964 and will expire in 2003.

The SOR is considering various potential forms of the PNCA for the future. Among the alternatives being considered are:

- No new PNCA (existing PNCA continues until 2003)
- A roll-over of the existing PNCA without modification
- Extension of the existing agreement with the addition of long-term operating procedures
- Various modified PNCAs

As discussed above, under Section 15 of the PNCA the Corps and Reclamation, as do all other utilities in the PNCA, have the authority to determine the requirements for nonpower uses before power requirements are established. Under the Forum, this is not expected to change. The Forum would likely be used to determine the nonpower requirements for the Federal projects within the confines of the System Operation Strategy. PNCA does not dictate the design of the Forum, nor would the Forum dictate a particular structure or agreement for PNCA.

2.3.2 Canadian Entitlement Allocation Agreements

Under the Columbia River Treaty, Canada built three storage dams on the upper reaches of the Columbia River in British Columbia. The regulation of stream flows made possible by these projects enabled dams downstream in the U.S. to produce more dependable capacity and average annual usable energy, and also provided increased flood protection. The Treaty requires that the U.S. and Canada share the benefits of the extra power-producing capability equally.

Because Canada did not need additional power at the time of the Treaty, it sold its benefits, called the Canadian Entitlement, to a group of utilities in the Northwest for a period of 30 years from the completion date of each of the three Canadian projects. The Canadian Entitlement is actually generated at the 11 U.S. projects downstream of the Canadian border. Five of these projects are owned by public

utility districts (PUDs) -- Chelan, Douglas, and Grant; six are owned and operated by the Federal government. The Canadian Entitlement Allocation Agreements determine the amount of power each PUD projects is entitled to generate of the total. BPA, as the representative of the U.S. government, and the PUDs are signatories to the agreements.

The agreements begin to terminate in 1998, and they expire completely by 2003. Canada has indicated they do not wish to resell the Canadian Entitlement to U.S. utilities. The return of Canada's share of power begins in 1998. New Canadian Entitlement Allocation Agreements are needed to determine the return obligation for each PUD. Current estimates of the total Entitlement during the return are 500 to 600 average megawatts of energy and 1,200 to 1,400 megawatts of capacity.

The System Operation Review will evaluate alternative ways of allocating the obligation between the SOR lead agencies and non-Federal parties, and assess the environmental impacts of the alternatives. The alternatives under consideration include:

- 100 Percent Federal/0 Percent Non-Federal Allocation
- 55 Percent Federal/45 Percent Non-Federal Allocation
- 70 Percent Federal/30 Percent Non-Federal Allocation
- No agreement

While the return of the Canadian Entitlement could reduce the available resources of the Columbia River system, or require replacement in some other manner (such as building new resources), it would not materially affect the operation of the river system. As a result, conclusions on the Canadian Entitlement Allocation Agreements will not affect the decision on the Forum, nor is the shape of the Forum expected to affect the allocation agreements.

2.3.3 Northwest Power Planning Council Power Plan and Fish and Wildlife Program

The NPPC, made up of representatives of the States of Idaho, Montana, Oregon, and Washington, was entrusted under the Northwest Power Act of 1980 to 1) develop a conservation and electric power plan to ensure an adequate, efficient, economical, and reliable power supply for the Pacific Northwest; 2) prepare a program to protect, mitigate, and enhance fish and wildlife, including related spawning grounds and habitat, affected by the development and operation of any hydroelectric project on the Columbia River and its tributaries; and 3) involve the public in these activities.

In 1982, the NPPC issued its first Fish and Wildlife Program which addressed salmon and steelhead production, safe passage, and harvest management. Although the Act requires review at least every 5 years, amendments and revisions have been made to the program almost annually. In 1991, responding to the potential for endangered species listings of Columbia and Snake River salmon, the NPPC began another series of amendments to its Fish and Wildlife Program centering on a salmon rebuilding program. The amendment process included four phases focusing on different aspects of salmon survival; production, habitat improvement, harvest, and fish passage improvements at Federal dams.

Following the Salmon Summit in 1991, the governors of the four Northwest states requested the NPPC to take the lead in developing regionally acceptable recovery actions. River management agencies have coordinated closely with the NPPC in developing those Fish and Wildlife Program amendments.

The NPPC has also prepared the "Northwest Conservation and Electric Power Plan" in 1983 and in 1986, and a supplement in 1989. The NPPC is currently preparing to review and update the power plan. The NPPC's plan does not create any new energy, rather, the plan must be implemented by BPA, other Federal, state and local agencies, utilities, businesses and the public.

2.3.4 Endangered Species Act Recovery Planning and Consultation

The Endangered Species Act of 1973, as amended, requires that actions of Federal agencies not jeopardize the existence of threatened or endangered species or destroy or adversely impact critical habitats of these species. Several species of salmon in the Columbia River system are threatened or endangered. Because of this, the relevant habitat protection agency -- the National Marine Fisheries Service -- is now responsible for a recovery plan, developed in consultation with the dam's operators, to protect the existing population of the species and bring about recovery, if possible.

The plan could have a considerable impact upon the operations of the Federal dams. In fact, the SOR lead agencies intend that the SOR will provide an analysis and evaluation of the impacts of any operational aspects of the recovery plan for Snake River stocks if those operational aspects are known prior to printing and distribution of the DEIS. In the future, the Forum would consider those aspects of any recovery plan(s) for listed or proposed species which affect or are affected by Columbia River operations.

Since the Endangered Species Act does not provide for Section 7 consultation with other than Federal agencies, the SOR lead agencies would most likely consult on system operational features with the National Marine Fisheries Service and/or the Fish and Wildlife Service on behalf of the Forum participants. Forum participants may provide review of any necessary biological assessments and biological opinions.

The normal annual sequence would be for the operating agencies to submit a document called a Biological Assessment to the National Marine Fisheries Service and/or the U.S. Fish & Wildlife Service in the Fall prior to the Spring/Summer season for which plans have been developed. In the Biological Assessment, the operating agencies demonstrate that their proposed operations will not have a negative impact upon the recovery program.

This document describes which reservoirs will be drafted and to what levels, and the anticipated flows measured at Lower Granite and McNary Dams. The National Marine Fisheries Service and/or U.S. Fish & Wildlife Service respond to the Biological Assessment with a Biological Opinion covering the operations for the next year. In order to provide a longer term perspective, both the National Marine Fisheries Service and the U.S. Fish & Wildlife Service have recently begun issuing five-year biological opinions, although some revisions may be made on a more frequent basis.

The following series of events related to ESA have occurred since the December 1991 Endangered Species Act listing for sockeye:

December 1991	ESA listing of sockeye
January 1992	Corps completes Final Columbia River Flow Measures - 1992 Options Analysis EIS on improving Snake River fish passage
March 1992	Corps conducts a drawdown test on Lower Granite and Little Goose Dams (based on 1992 Final EIS)
April 1992	Biological Assessment provided to NMFS
April 1992	First Biological Opinion by NMFS on operation of FCRPS
April 1992	Corps' Record of Decision issued
May 1992	ESA listing of chinook
June 1992	BPA's Record of Decision issued
February 1993	Biological Assessment provided to NMFS
March 1993	Final Supplemental EIS on Columbia River Salmon Flow Measures issued

March 1993	Biological Assessment provided to USFWS
May 1993	Second Biological Opinion issued by NMFS
June 1993	Record of Decision issued on Supplemental EIS
June 1993	USFWS issued Biological Opinion on various species, not including sturgeon
December 1993	Biological Assessment provided to NMFS
March 1994	Judge Marsh issues opinion on Idaho Fish & Game Department v NMFS
March 1994	NMFS concludes consultation with the 1994-98 Biological Opinion
April 1994	Corps and NMFS release Draft EIS on Biological Drawdown Test
July 1994	USFWS issued 1994-1998 Biological Opinion, including sturgeon
September 1994	Ninth Circuit Court rules that Northwest Power Planning Council must give deference to Fish Agencies and Tribes in development of Fish and Wildlife Program
December 1994	Operating agencies reinstate consultation as a result of the settlement discussions initiated by Judge Marsh, resubmitting the substance of the 1994 Biological Assessment known as the Supplemental Biological Assessment
March 1995	NMFS and USFWS issue the 1995-1999 Biological Opinion
April 1995	Records of Decision issued

2.3.5 Federal Advisory Committee Act

Several of the Forum alternatives could be classified as Federal advisory committees coming under the requirements of the Federal Advisory Committee Act (FACA) of 1972. A regular advisory group consisting of non-Federal members would be exempted from FACA only if it conformed with the following language:

Exempted:

Any meeting initiated by a Federal official(s) with more than one individual for the purpose of obtaining the advice of individual attendees and not for the purpose of utilizing the group to obtain consensus advice or recommendations. However, agencies should be aware that such a group would be covered by the Act when an agency accepts the group's deliberations as a source of consensus advice or recommendations.

In other words, if members of the advisory groups express individual viewpoints but there is no effort to achieve a group recommendation, then the advisory group could be exempt from FACA. Several of the Forum alternatives talk about "decisions" made by a group consisting of non-Federal members. This would appear to place such groups within the purview of the FACA. If such a group were created by Congressional authorization, Congress could, of course, specifically exempt the group from FACA.

On February 10, 1993, President Clinton issued Executive Order 12838, Termination and Limitation of Federal Advisory Committees, which states that executive departments are to eliminate the number of FACA committees by one-third. The Executive Order also states:

Section 5. Effective immediately, executive departments and agencies shall not create or sponsor a new advisory committee subject to FACA unless the committee is required by statute or the agency head (a) finds that compelling considerations necessitates creation of such a committee, and (b) receives the approval of the Director of the Office of Management and Budget. Such approval

shall be granted only sparingly and only if compelled by considerations of national security, health or safety, or similar national interests. These requirements shall apply in addition to the notice and other approval requirements of FACA.

Despite this Executive Order, the Department of Energy has been successful in gaining FACA status for site-specific advisory committees established at DOE clean-up sites. Also, Congress could, of course, direct the establishment of a committee, and either specify that it was subject to FACA, or exclude it from FACA.

In 1995, through the Unfunded Mandates Reform Act, Public Law No. 104-4, Congress removed restrictions in FACA on coordination among Federal, state and Tribal officials. Section 204(b) of the act states:

The Federal Advisory Committee Act . . . shall not apply to actions in support of intergovernmental communications where (1) meetings are held exclusively between Federal officials and elected officers of State, local, and Tribal governments (or their designate employees with authority to act on their behalf) acting in their official capacities; and (2) such meetings are solely for the purposes of exchanging views, information, or advice relating to the management or implementation of Federal programs established pursuant to public law that explicitly or inherently share intergovernmental responsibilities or administration.

If a group did come under FACA, the following requirements would have to be met:

- The agency must make an assessment that an advisory group is in the public interest.
- A letter must be sent to the Committee Management Secretariat at the General Services Administration, a notice of determination must be published in the Federal Register, and an action memo must be sent to the relevant Secretary.
- A charter must be prepared for the group. The charter should include the committee's official designation, objectives, scope, term length, official to whom it reports, the agency providing support, duties, operating costs, estimated number of members, provisions for selecting chairperson and subcommittees, and termination date. The charter must be furnished to the Library of Congress.
- Each agency is required to establish uniform administrative guidelines and management controls.
- The committee must have balanced representation.
- Agency heads, in coordination with the Advisory Committee Management Officer (ACMO), prepare a list of proposed members that is submitted through the ACMO to the Secretary for approval.
- Committee organizers should coordinate with the ACMO and General Counsel (GC) when considering a subcommittee. Some subcommittees require separate charters.
- Terms on the committee are limited to two years.
- Meetings are open to the public. Anyone may attend. Meetings are announced in the Federal Register. An officer of the Federal Government must attend and approve the agenda beforehand. Meetings are closed only if there is a discussion of sensitive research and development matters or a discussion of a "national security matter."
- Records must be kept and are public documents.
- An agency is responsible for providing support services for any advisory group established by it.

- It is the responsibility of the relevant Secretary to ensure that the committee is informed of actions taken on the recommendation of the committee.
- The President must submit a Report to Congress on the activities, status, and changes in the composition of the group during the preceding calendar year. The relevant Secretary will make an annual review of each committee to determine whether it is carrying out its purposes, whether its

responsibilities need to be revised, whether the committee needs to be merged or abolished. To assist the Secretary, each agency sponsoring an advisory group shall review each of its groups in January of each year.

2.3.6 Other Requirements

There are a variety of other statutes and regulations which apply to river operations such as the Clean Water Act, and the Wild and Scenic Rivers Act to name a few. Finally, in some instances, state and local plans and laws may apply.

CHAPTER 3

ALTERNATIVES

This chapter describes the alternatives being considered. It begins with a discussion of the institutional arrangements used in similar situations throughout the country to address multi-agency regional decisionmaking, then describes the Forum alternatives being considered, including the rationale for selecting them.

3.1 REVIEW OF OTHER EXAMPLES

As part of the process of formulating Forum alternatives, a review was made of other institutions that have been created in similar circumstances. A review was made of the published literature, and in addition, phone interviews were conducted with staff of entities that seemed to have some of the characteristics that a Columbia River Forum might need to possess to determine lessons learned.

3.1.1 Characteristics of Other Entities

The characteristics looked for in these entities included the following:

- They serve as a mechanism for resolution of issues between a number of governmental entities, often involving different levels of government, including Federal, state, and local agencies.
- They make decisions about scarce resources, with many competing uses and user groups.
- They provide mechanisms for both government involvement and the involvement of stakeholder groups and private citizens.
- They all were created after existing institutions were unable to resolve the issues, so had to prove effective despite pre-existing institutional arrangements and authorities.

The organizations reviewed were:

Adaptive Management Program, Glen Canyon Dam

This is a mechanism for making decisions on operations of Glen Canyon Dam based on continuing research and monitoring of the environmental impacts of dam operations.

Association of Bay Area Governments (ABAG)

This is a regional planning entity in the San Francisco Bay Area created as a joint powers authority by agreement of local counties and cities.

Chesapeake Bay Program

The Chesapeake Bay Program is a U.S. Environmental Protection Agency (EPA) program to clean up Chesapeake Bay. However, an extensive management structure and administrative has been created that includes Federal, state and local agencies, as well as stakeholder groups both in formulating and administering programs. Part of the effectiveness of this program is the Chesapeake Bay Commission, established by the three affected states to advise the legislatures of these states.

Gulf of Mexico Program

This is another EPA clean-up program that has included Federal, state, and local agencies in planning and implementing a region-wide clean-up program.

Puget Sound Water Quality Authority

This is an entity established by the Washington State Legislature to oversee water quality planning in the Puget Sound area.

Ohio River Commission

This Commission was established by Congressional Act, as part of the Water Resources Planning Act of 1965, to provide coordinated planning for the use of the basin's water and related land resources. membership includes representatives of all the states in the basin, and the Federal agencies with related responsibilities.

Additional information about these organizations is provided in Exhibit A.

Northwest Power Planning Council -- which provide information and influence the decisions of other entities who retain decision-making authority. Alternatively, decision-making entities bring other agencies into their decisionmaking in such a complete way that decisions are made "as if" all the participants were party to the decision. Legally, however, the decisionmaking entities retain their decisionmaking authority.

3.1.2 Relevant Findings by SOR Team/Consultants

Here are a few observations about the characteristics of these programs that have relevance for SOR:

- When entities are formed for decisionmaking among multiple layers of government, they must coexist within an existing web of relationships and authorities. Typically they are not given full management authority equivalent to the decisionmaking authority the SOR lead agencies now exercise on the Columbia River. These new entities are often planning entities -- much like the
- All of the entities have a policy group with executive level representation from the Federal or state agencies and/or senior elected officials (e.g. Governors) or their appointees.
- Most also have an implementation or management group responsible for day-to-day activities or operations. This committee often mirrors the policy group's membership, but with operation-level staff.
- Each program also has a significant public involvement and/or public outreach program, a set of citizen advisory committees, and a set of technical advisory groups. (See Figure 3-1)

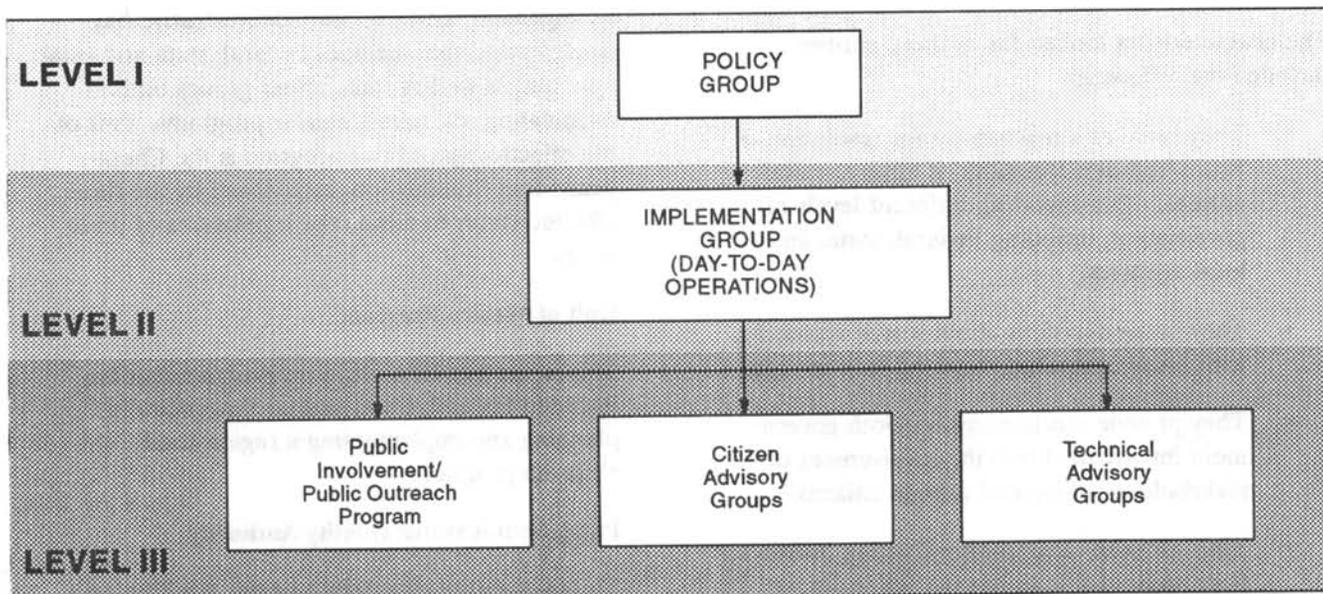


Figure 3-1. "GENERIC" Structure For Regional Forums

- Several of these entities started out with essentially advisory status but have, over time, acquired statutory powers or are de facto decisionmaking bodies.
- It's normal for participating agencies to contribute staff who are physically located at the project. The cost of providing this staff comes from the participating agencies.
- The authority of the entity is strengthened if there is a legislative tie. This increases the chances that the legislation needed to implement the program will be passed. In the case of the Chesapeake Bay Program, the Commission serves this role. In the case of the Puget Sound Water Quality Authority, the report to the legislature provides a very visible way of surfacing issues. This may not be a significant issue for the Columbia River Regional Forum if the limit of the Forum's authority is river operations. It might be important if the Forum becomes involved in water conservation issues, where state support for implementation would be essential.

3.2 A GENERIC DECISIONMAKING PROCESS

In the process of defining the existing decisionmaking process, the SOR lead agencies came to recognize that one of the reasons there are concerns about the visibility of the existing decisionmaking process is that there is no formal and defined decision process followed now by the SOR lead agencies. The lack of visibility can lead to a loss of credibility, regardless of the decisions made. As discussed earlier, there are several levels of decisions being made. The SOR will result in a System Operating Strategy. Subsequently there will need to be decisions made to revise or update the strategy, or interpret the strategy in light of changing conditions. Finally, there are decisions regarding specific operations that are planned for during the year and may affect real-time operations.

The SOR lead agencies have identified two generic decisionmaking processes, one for revisions and

updates to the System Operating Strategy, and one for real-time operations, that clarify the existing process and provide opportunities for involvement in the decision. **The SOR lead agencies recommend that these generic decisionmaking processes be used regardless of which of the institutional alternatives is selected.** Because these generic decisionmaking processes are assumed for all alternatives, they are presented ahead of the alternatives themselves, to set the context for the alternatives. Figure 3-4 presents the recommended decision process for revising or updating the System Operating Review. Figure 3-2 presents the decision process for real-time operating actions.

NOTE: This process is for annual updates to the SOS. A major change to the SOS would follow the same steps, but would not have to follow the same time frame.

3.2.1 Annual Review of the System Operating Strategy

As shown in Figure 3-2, the traditional date used as the beginning of a new operating year is August 1. [The rationale for this is driven more by power generation than other uses of the river, although it is not clear that any of the other uses would be materially benefited by a change in the beginning of the annual planning cycle.]

After August 1, the agencies would begin an analysis of the prior year's operations, make an appraisal of the existing year's situation, and estimate the water conditions for the following year. This information would then be disseminated to all stakeholder groups (groups representing various uses of the river) in the region. *It should be noted that if this planning cycle were to begin on August 1, 1994, for example, the planning would be for the water year beginning August 1, 1995, not the year beginning August 1, 1994. The planning process takes a full year.* Major decisions, such as revisions to the SOS, would be made by February 1, allowing time for the operators to develop detailed operational plans.

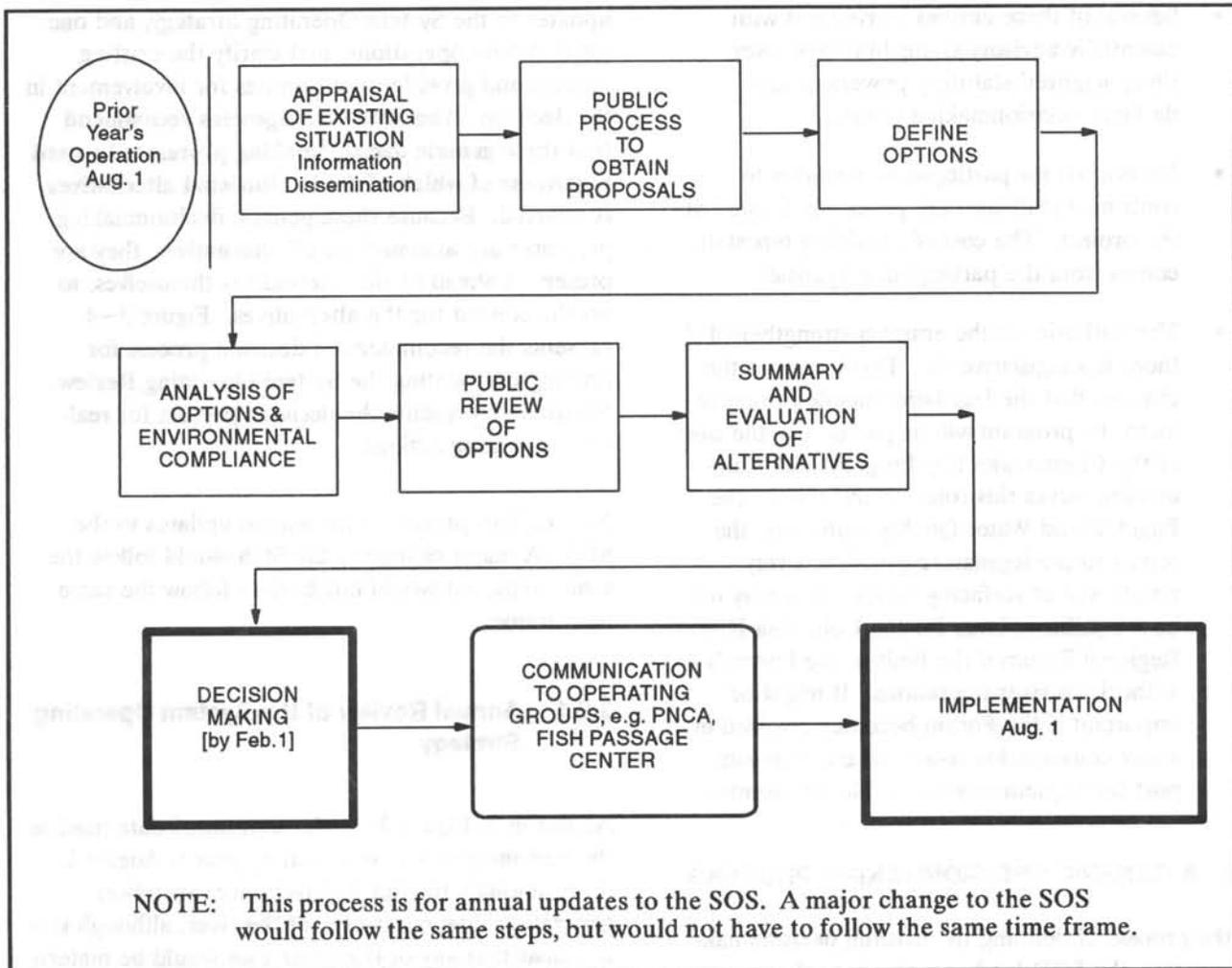


Figure 3-2. Annual Process For System Operating Strategy Updates

Once the analysis has been disseminated to the Region, the groups representing the various uses of the river would be invited to submit proposals for the operations that would benefit their use.

In the existing decisionmaking process, similar proposals are received. However, the process by which these proposals are generated is informal, and there is no clearly defined procedure for gathering all the proposals and subjecting them to a simultaneous review. As a result, there is no moment in time where everyone in the region knows what has been proposed and has an opportunity to assess the proposals side by side. This means there is little

visibility to the process. It also means that there are suspicions that stakeholder groups attempt to “get several bites of the apple” by submitting proposals at different times and in different forums.

Under the proposed decisionmaking process, there would be a visible process for soliciting proposals. The SOR lead agencies or the Forum would then take these proposals, develop alternatives, analyze the alternatives, and conduct a public review of them. Reports would be prepared that summarize both the technical evaluation of the alternatives and the public comment, and these would be submitted to the decisionmaking agencies or entity in time for

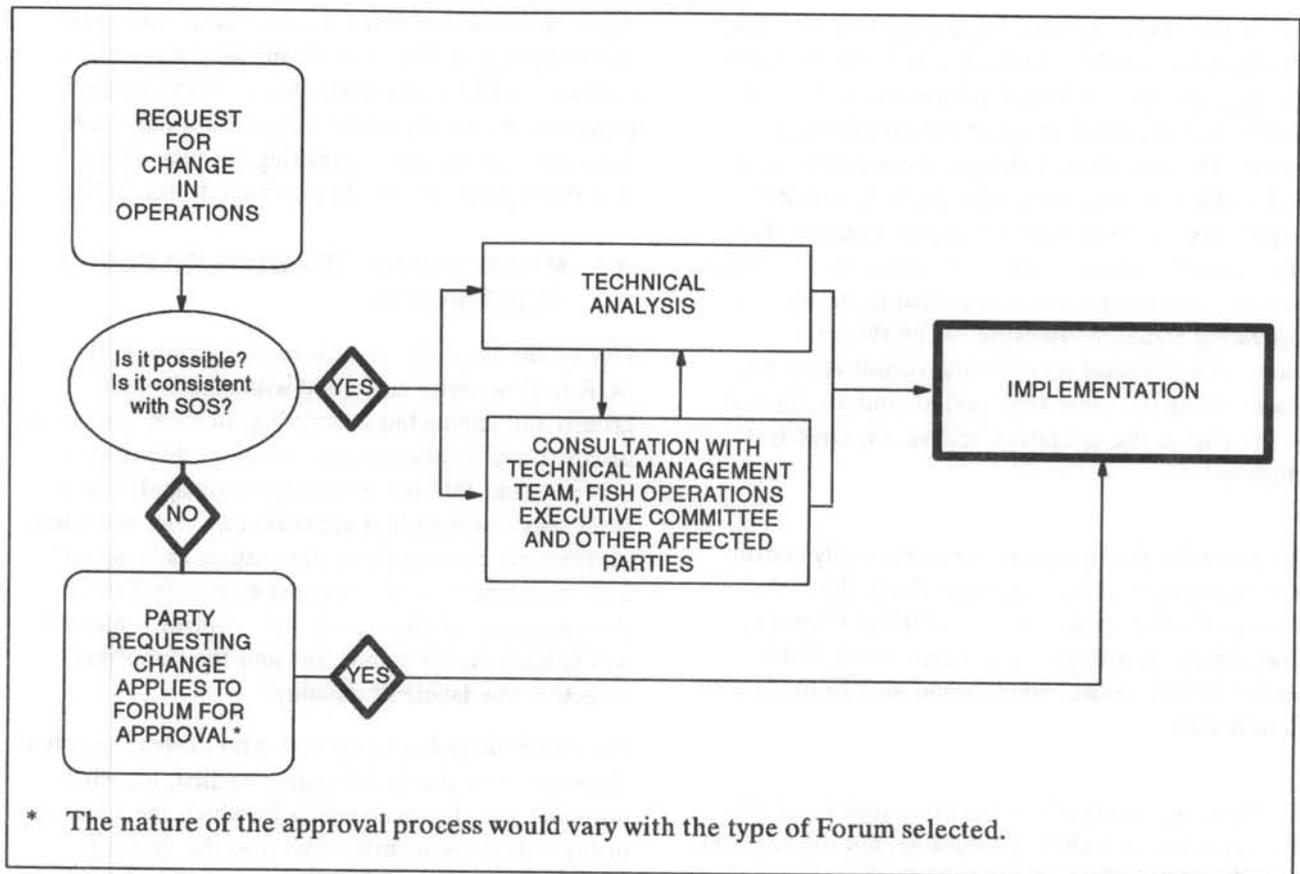


Figure 3-3. Resolution Of Requests For Real-Time Operating Changes

a February 1 decision. The updated SOS would then be communicated to the operating groups, such as the PNCA and the Fish Passage Center. A detailed operating plan would then be developed by these groups, to be implemented beginning August 1st.

This cycle could be repeated on an annual basis. This annual cycle assumes that the decisions consist primarily of updates of the existing strategy. If major revisions to the strategy are going to be made, the sequence of steps in the decision process would remain the same, but the process could last longer than a year.

3.2.2 Real-Time Operating Changes

Real-time operating changes are changes made during the operating year, in response to requests from stakeholder groups. They may be caused by

changes in water conditions, to take advantage of a profitable power sale, to improve river conditions for fisheries, to enhance recreational opportunities, or in response to problems with navigation or even accidents or safety concerns. Decisions must be made in "real-time" -- that is, anything from just a few minutes to several weeks.

Real time decisions are always made within a framework such as an annual operating plan. This operating plan takes into account the overall strategy, existing agreements, and the legal rights of the various parties.

Typically an operating change would be requested by one of the stakeholder groups. The operators of the dams -- the Bureau of Reclamation and the Corps of Engineers -- would analyze the request to determine: (1) Is the request technically feasible, and (2) Is the request consistent with the System Operating Strate-

gy? If the answer to both these questions is "YES," the operators would then analyze how best to satisfy the request, and also begin discussions with other stakeholder groups that might potentially be affected. In some cases a change in operations might be feasible and consistent with the SOS, but still require consultation between parties because there are tradeoffs between uses even within the relatively narrow band of operations specified in the System Operating Strategy. Because of the short time frame, the technical analysis and consultation take place during the same time period, and are limited to the parties the operators believe are directly impacted.

For example, the operators would normally consult with the Technical Management Team, the Fish Passage Center, or the Fish Operations Executive Committee. If a Regional Forum existed that had technical staff, consultations could also be made with Forum staff.

On those occasions where the operators determine that a request is technically feasible, but inconsistent with the System Operating Strategy, there is the potential for controversy over their interpretation of the Strategy. In the event of a dispute over whether a request is consistent with the Strategy, the party requesting the operating change could appeal to the Forum. The nature of that appeal process would vary with the type of Forum selected.

Again, it should be noted that the SOR lead agencies suggest that these decisionmaking processes be followed in all Forum alternatives. These generic processes do not represent a significant departure from the existing decisionmaking process, except that these processes would be visible to the public.

3.3 MAJOR CHARACTERISTICS OF FORUM ALTERNATIVES

During the formulation of forum alternatives the SOR lead agencies consulted with stakeholder groups and conducted a workshop of these groups to discuss possible alternatives. In these discussions it became clear that there were two principal dimensions that distinguished alternatives. The workshop participants defined these dimensions as "control" and "sunshine." In the discussion of objectives at the beginning of this report, the "control" objective was labeled "decisionmaking" and the "sunshine" objective was labeled "visibility."

Decisionmaking has to do with who makes the actual decisions, how the decisions are reached, for what purposes and the mechanisms by which the concerns of the public are incorporated into the decision. Visibility has to do with such issues as whether the public is fully informed of the issue and what opportunities are provided for the public to participate in the decisionmaking process.

As Figure 3-4 shows, they may actually be viewed as part of the same continuum of alternatives:¹

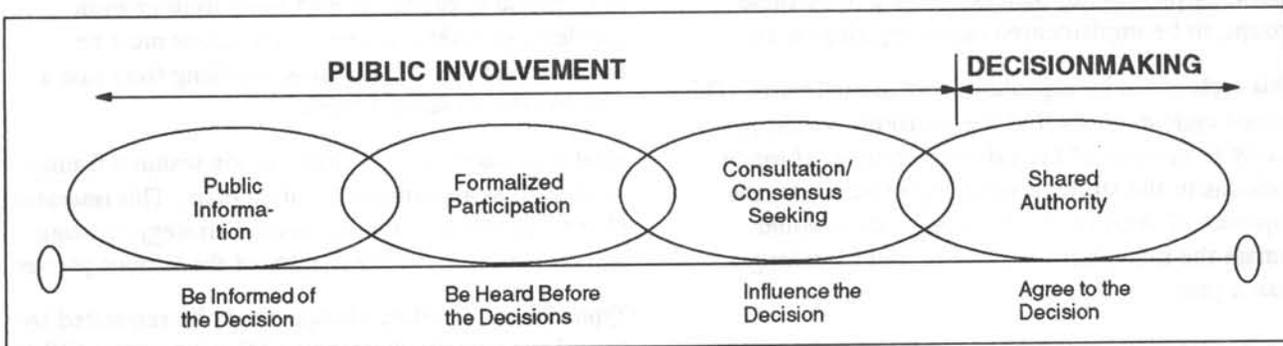


Figure 3-4. Levels Of Involvement In Decisionmaking

¹ Adapted from Creighton, James L. *Involving Citizens in Community Decision Making: A Guidebook, Program for Community Problem Solving*, 1301 Pennsylvania Avenue, Suite 600, Washington D.C. 20004, 1992.

As suggested in Figure 3-4, there are different mechanisms for involving the public in decisions, depending on the amount of influence individuals and groups expect to exert on the decision. At one end of the spectrum, groups are simply kept informed of decisions that have been made through a public information program. Moving further along the spectrum, individuals and groups are given the opportunity to comment upon alternatives in formal processes such as public hearings or public comment periods. They are heard before the decision is made, but agencies retain full decisionmaking authority. Still further along the spectrum, the agencies choose to have extensive consultation with the stakeholders. In some cases the agencies may actually seek as broad a consensus as possible before making a decision, depending on how much support is required for a decision to be implemented. This consultation/ consensus-seeking process would require a full and complete public involvement process, with stakeholders involved in every phase of the decisionmaking process. Not every stakeholder would necessarily agree with the decision, but they would clearly have had opportunities to influence the decision.

All three of these points along the spectrum can still be called "visibility." The agencies have not delegated the ultimate decisionmaking authority, but have voluntarily provided opportunities for others to influence the decision.

At the final point along the spectrum, there is actual shared authority. Stakeholders, or agencies representing them, become actual parties to the decision. They exert legal control over the substantive decision that is being made. This end of the spectrum is where participants other than the SOR lead agencies share in the actual "control" of river operations.

3.3.1 Alternatives for Decisionmaking Authority

For some stakeholder groups, the "bottom line" is defined as who actually makes the final decision, independent of how many opportunities the public may have to participate prior to the decision. Presently decisions are made by the SOR lead

agencies; the Bonneville Power Administration, Bureau of Reclamation, and Corps of Engineers.

The decisionmaking authority options are:

3.3.1.1 Decisionmaking Option: Decisionmaking by the SOR lead agencies

The first category of alternatives would be for decisions to continue to be made by the Bonneville Power Administration, Bureau of Reclamation, and Corps of Engineers. The SOR lead agencies could significantly improve levels of public involvement and influence in their decisionmaking, but there would be no fundamental shift in decisionmaking authority.

No Congressional action for changes in authority would be required for this alternative.

3.3.1.2 Decisionmaking Options: Decisionmaking by a Federal Consultation Forum

The term "Federal Consultation Forum" is used here to include the SOR agencies and other Federal agencies with jurisdiction. At the present time, this would include the SOR agencies and the National Marine Fisheries Service (NMFS) and the U.S. Fish & Wildlife Service, who have jurisdiction as a result of their responsibilities under the Endangered Species Act (ESA). The intent of this option is that the five agencies would act as a consultative decisionmaking group, much as the SOR agencies have throughout the SOR study. The five agencies would need to negotiate a single decisionmaking process that would consider all the demands on the river as part of the same decisionmaking or planning cycle.

At the present time there is a significant disconnect between the planning process in which the SOR agencies engage to guide river operations and the decisionmaking process under the ESA. ESA requirements are set up under a separate legislative mandate, and the ESA agencies are required to give primary consideration to protecting the species, not economics. The timing of ESA decisions is often very short, based on the actual water in the river, and can preempt prior planning by the SOR agen-

cies. Also, since there are different endangered species, with different agencies concerned about them, it is even possible to imagine a scenario in which the requirements from the ESA agencies could be contradictory or mutually exclusive, e.g. water withdrawals ordered to protect one species could hurt another.

This alternative assumes that all five agencies believe the interests they represent will gain more from working together than from separate processes. If this is the case, the agencies would develop an integrated planning process that allows all the interests to be addressed simultaneously, or at least employ the same planning cycle.

This alternative could be implemented by the five agencies without the need for additional authority from Congress. The agencies would negotiate an agreement on the process to be followed, staffing arrangements, funding, etc.

3.3.1.3 Decisionmaking Option: Decisionmaking by a Single Federal Agency

In this alternative, a single Federal agency would make all operational decisions for the river. Presumably this would be one of the SOR lead agencies, since they have operational experience. If this were the case, the remaining issue that would have to be resolved would be the role of the National Marine Fisheries Service, which holds a strong position in decisionmaking related to endangered species issues. Alternatively, the National Marine Fisheries Service could be designated as the decision maker, because of its role in protecting endangered species.

The arguments that stakeholders might make for consolidating decisionmaking in one agency could be: (1) simplifying the decisionmaking process, and (2) consolidating decisionmaking in the hands of an agency whose mandate is closest to that of the stakeholder group, (e.g., if your interest is power generation, then you might support consolidation in the hands of the agency with the strongest mandate for power generation).

Selecting a single Federal agency as decision maker would require Congressional action to assign decisionmaking authority, and remove responsibility from the other two agencies.

3.3.1.4 Decisionmaking Option: Decisionmaking by a New Entity

The third alternative would to establish a new decisionmaking body whose membership would include representatives of all the various uses of the river. Typically this group would take the form of a compact or commission. This body would have to be Congressionally mandated. Congress could establish a group that would take over the decisionmaking authority of the SOR lead agencies in regard to river operations.

Earlier in this document there was a discussion of alternative approaches used elsewhere. Among those examples, the Ohio River Basin Commission is the closest example of what this alternative might look like.

There are several ways for how this body could be structured:

Federal/State Agencies Only

A Board could be established that included representatives of all the relevant Federal and state agencies. For example, representative of Bonneville, Reclamation, and the Corps would be on the Board, possibly with additional representation from the National Marine Fisheries Service and/or U.S. Fish & Wildlife Service. Each state would also have a defined number of agency representatives, including such possibilities as the heads of departments of natural resources, commerce, energy, parks and recreation, fish and game.

Agencies/Stakeholders

Another composition would be to include the SOR lead agencies at the table, and possibly some state agencies, but to also include some representatives of stakeholder groups. For example, the Governors might be asked to designate individuals representing power interests, fish and wildlife

interests, or other interests such as recreation, navigation, etc.

State Representatives

The third way is that the Board could be established is to represent states only, with no representatives from federal or state agencies. An example of this is the Northwest Power Planning Council, where the Governors of each of the four Northwest states each pick two representatives to the Council.

3.3.2 Alternatives for Levels of Public Involvement

There are alternatives for how much involvement of the public occurs before the decisions are made, regardless of who actually makes the decision. These alternatives can involve several dimensions:

- **Public Information:** How much information - and how effectively presented - is provided to stakeholders and the general public.
- **Public Comment:** What opportunities are provided for the public to comment upon the decisions being made.
- **Access:** What opportunities are provided for interaction with decision makers prior to the decision.
- **Neutral Evaluation:** To what extent are both the technical studies and the comment from the public reviewed by people who do not have a stake in the outcome of the decision.

With this many dimensions, the number of possible options becomes quite large. For this reason, the SOR lead agencies have created several public involvement options that combine various features of these dimensions. These options are:

3.3.2.1 Public Involvement Option: Public Involvement Program Conducted by Agency

In this option, the appropriate SOR agency or agencies (or any existing or new entity acting in place of the SOR agencies) would develop and implement a public involvement program, providing stakeholders and the public the opportunity to be consulted prior to the final decision. This option assumes the desirability of the following attributes for any public involvement program:

- The public is provided with full information about the nature of the issue, the alternatives being considered, and the impacts associated with them.
- Opportunities for the public to participate are provided at all stages of the decisionmaking process including problem definition, formulation of alternatives, evaluation of alternatives, and selection of the preferred alternative.
- The forums used for public participation provide for interaction between the public and decision makers.
- The public is given a full accounting of how their comments were incorporated in the decision.
- Whenever possible, the agencies collaborate with the public to select an option that enjoys broad public support.

Implementing such a program is within the current authority of the SOR lead agencies. In fact, each of the agencies has guidance that encourages such an approach,² and this approach has been used with the System Operation Review. It has not previously been extended to annual operations planning, however.

² Creighton, James L., *Public Involvement Manual: Involving the Public in Water and Power Resources Decisions*, U.S. Bureau of Reclamation, 1980, U.S. Government Printing Office Washington D.C. 20402., Document 024-003-00139-2. Creighton, Delli Priscoli, Dunning (Eds.) *Public Involvement Techniques: A Reader of Ten Years Experience at the Institute for Water Resources*, Fort Belvoir, VA: U.S. Army Corps of Engineer's Institute for Water resources, May 1983, IWR Research Report 82-R1. Creighton, James L. *BPA Public Involvement Guide*, Portland, OR: Bonneville Power Administration, 1984.

3.3.2.2 Public Involvement Option: Recommendation Developed by an Existing Regional Entity

The premise of this option is to empower an existing regional entity to both conduct a public involvement program and make an independent review of the technical information, developing a recommendation for operation that would then be presented to the SOR lead agencies. While this would be an advisory recommendation, the political realities would be such that the recommendation would undoubtedly carry great weight with the SOR lead agencies. In addition, some mechanism would need to be established to ensure that the SOR lead agencies reported back to the regional entity on any deviations from the proposal, and the reasons for those deviations.

Ideally the regional entity that would develop this proposal would: (1) have qualified technical staff who would be able to evaluate the technical basis for the decision, and (2) have a legal mandate/decision-making representation for all the uses of the river. One entity with technical expertise, the Northwest Power Planning Council, has a mandate that covers power, and also fish and wildlife, but not some of the other uses of the river, such as navigation, flood control, recreation, etc. However, it comes the closest of any existing regional entities to an entity that would be credible or be perceived as "neutral" by all sides. It is not known at this time whether other users would find the NPPC credible in this role. This would be a necessary precondition for this alternative to have any advantage over the previous option.

The SOR lead agencies could request that the NPPC develop such a recommendation. The likely legal vehicle would be a Memorandum of Understanding (MOU) between the SOR lead agencies and the NPPC. This MOU might explicitly state that for the purposes of this recommendation the NPPC should take into account and attempt to balance all uses of the river.

NPPC staff would act as the technical staff to review the technical basis for the recommendation. Presumably some compensation would be paid by the SOR lead agencies to the NPPC for this staff time, or for hiring additional staff. Because they cannot forego their legal accountability under this option, the SOR lead agencies would undoubtedly also conduct a review of the technical basis for the decision.

3.3.2.3 Public Involvement Option: Recommendation by a New Entity

An option to having a recommendation developed by an existing entity would be to have operation recommendations developed by the board of directors of a new entity specifically created to advise on river operations. The closest examples of such a entity, from among the examples of approaches used elsewhere presented earlier in this chapter, would be the boards of the Chesapeake Bay Program and the Gulf of Mexico Program. There are three variations on membership for the board of this new entity:

- **Federal/State Agencies Only:** The board would be composed of members of Federal and state agencies only.
- **Agencies/Stakeholders:** The board would include representatives of Federal and state agencies, with some representation from stakeholder groups (e.g. power interests, recreation interests, etc.)
- **State Representatives:** The Governors of the four Northwest states would appoint the members of the board.

To ensure the objectivity of technical analysis, the board would also hire and oversee technical staff. This staff would either be donated by participating agencies, and physically located with the new board, or each agency member (including state agencies) would be assessed to pay for technical staff.

3.3.3 List of Options

In theory, any of the decisionmaking authority options could be combined with any of the public involvement and influence options to form a variety of Forum alternatives, as summarized in the following matrix.

In practice, it seems unlikely that once a new entity was established it would seek either a recommendation from another existing entity, or a recommendation by still another new entity. Thus the only combination that seems appropriate with Decisionmaking by a New Entity would likely be a public involvement program conducted by that new entity.

Table 3-1. List Of Theoretical Options

DECISIONMAKING OPTIONS	PUBLIC INVOLVEMENT OPTIONS
Decisionmaking by the SOR lead agencies	Public Involvement Program Conducted by SOR Lead Agencies
Decisionmaking by the SOR lead agencies	Recommendation by a New Entity
Decisionmaking by a Federal Consultation Forum	Public Involvement Program Conducted by Federal Consultation Forum
Decisionmaking by a Federal Consultation Forum	Recommendation from an Existing Entity
Decisionmaking by a Federal Consultation Forum	Recommendation by a New Entity
Decisionmaking by a Single Federal Agency	Recommendation from an Existing Entity
Decisionmaking by a Single Federal Agency	Recommendation by a New Entity
Decisionmaking by a New Entity	Public Involvement Program Conducted by New Entity
Decisionmaking by a New Entity	Recommendation from an Existing Entity
Decisionmaking by a New Entity	Recommendation by a New Entity
Decisionmaking by a Single Federal Agency	Public Involvement Program Conducted by Single Federal Agency

3.4 FORUM ALTERNATIVES

In order to focus on the important differences among all possible alternatives, the SOR Team decided to restrict the analysis to the following alternatives:

- FORUM 1: Decisionmaking by the SOR lead agencies with a public involvement program conducted by the SOR lead agencies.
- FORUM 2: Decisionmaking by the SOR lead agencies and recommendation by an existing regional entity.³
- FORUM 3: Decisionmaking by the SOR lead agencies and recommendation by a new entity.⁴
- FORUM 4: Decisionmaking by a Federal Consultation Forum [the SOR lead agencies

and other Federal agencies with jurisdiction (e.g., NMFS and USFWS)] and a complete public involvement program.

- FORUM 5: Decisionmaking by a New Entity and a complete public involvement program.
- FORUM 6: Decisionmaking by one Federal operating agency (e.g., Corps or Reclamation) and a complete public involvement program.
- FORUM 7: Decisionmaking by one other Federal agency (e.g., NMFS) and a complete public involvement program.

These alternatives are shown in Figure 3-2 on the following pages. This figure contrasts what would occur at each step of the annual update decision-making process described earlier in this chapter.

Table 3-2. The Process for Annual Decisionmaking, by Alternative - FORUMS 1 through 4

PROCESS STEPS	FORUM 1 SOR LEAD AGENCIES	FORUM 2 RECOMMENDATION BY EXISTING ENTITY	FORUM 3 RECOMMENDATION BY NEW ENTITY	FORUM 4 DECISION BY FEDERAL CONSULTATION FORUM
APPRAISAL OF EXISTING SITUATION	Appraisal conducted by Federal agencies.	Appraisal conducted by Federal agencies.	Federal agencies prepare report for new entity. New entity has staff to analyze Federal report. Options: reps of state and Federal agencies; Governor appoints reps of river uses.	Appraisal conducted by appropriate Federal agencies. with jurisdiction over resources affected by river operations
PUBLIC PROCESS TO OBTAIN PROPOSALS	Public involvement program conducted by Federal agencies. Options: written public comment period; public workshops or meetings	The existing entity initiates and conducts public involvement program. Criteria for entity: qualified staff to conduct; representative of river uses	New entity initiates and conducts public involvement program.	A combined or joint public involvement program conducted by Federal agencies. Options: written public comment period; public workshops or meetings

3 The assumption is made that the existing regional entity would conduct a complete public involvement program.

4 The assumption is made that the new entity would conduct a complete public involvement program.

**Table 3-2. The Process for Annual Decisionmaking, by Alternative -
FORUMS 1 through 4 - CONT**

PROCESS STEPS	FORUM 1 SOR LEAD AGENCIES	FORUM 2 RECOMMENDATION BY EXISTING ENTITY	FORUM 3 RECOMMENDATION BY NEW ENTITY	FORUM 4 DECISION BY FEDERAL CONSULTATION FORUM
DEFINE OPTIONS	Federal agencies screen options and combine into alternatives.	Non-SOR entity proposes options, following consultation with Federal agencies.	Options proposed by new entity or its staff.	A combined or joint public involvement program conducted by Federal agencies. Options: written public comment period; public workshops or meetings
ANALYSIS OF OPTIONS & ENVIRONMENTAL COMPLIANCE	Options: Federal agencies complete analysis; Federal agencies call on working groups for significant issues; analysis done by working groups. SOR agencies consult with NMFS & USFWS.	Options: Federal agencies complete analysis; non-Federal agencies conduct analysis; analysis conducted jointly by agencies and entity. SOR agencies consult with NMFS & USFWS.	Options: analysis conducted by staff of new entity; analysis conducted jointly by staff of new entity and Federal agencies. SOR agencies consult with NMFS & USFWS.	Options: Appropriate Federal agencies complete analysis; Federal agencies call on working groups for significant issues; analysis done by working groups. SOR agencies consult with NMFS & USFWS.
PUBLIC REVIEW OF OPTIONS	Federal agencies conduct public review process. Options; written public comment; public workshops or meetings.	Non-Federal entity designs and conducts public review process.	Public review process designed and conducted by staff of new entity, under direction of new entity management.	Federal agencies conduct joint public review process. Options; written public comment; public workshops or meetings.
SUMMARY AND EVALUATION OF ALTERNATIVES	Completed by Federal agencies. Will be made available to public after decisionmaking.	Recommendations prepared by non-Federal entity and transmitted to Federal agencies.	Recommendation approved by new entity.	Jointly completed by Federal agencies. Will be made available to public after decisionmaking.
DECISION MAKING	Decision by Federal agencies. Agencies publish a summary of why decision was made and relationship to public comment.	Decision by Federal agencies. Agencies publish a summary of why decision was made and relationship to public comment.	Decision by Federal agencies. Agencies publish a summary of why decision was made and relationship to public comment.	Decision shared among several Federal agencies including those with jurisdiction over river resources. Agencies publish a summary of why decision was made and relationship to public comment.
COMMUNICATION TO OPERATING GROUPS	Publication of Annual Operating Plan.	Publication of Annual Operating Plan.	Publication of Annual Operating Plan.	Publication of Annual Operating Plan.
IMPLEMENTATION	Projects operated by Bureau of Reclamation and Corps of Engineers.	Projects operated by Bureau of Reclamation and Corps of Engineers.	Projects operated by Bureau of Reclamation and Corps of Engineers.	Projects operated by Bureau of Reclamation and Corps of Engineers.

Table 3-3. The Process for Annual Decisionmaking, by Alternative - FORUMS 5 through 7

PROCESS STEPS	FORUM 5 DECISION BY NEW ENTITY	FORUM 6 DECISION BY ONE OPERATING AGENCY	FORUM 7 DECISION BY ONE OTHER FEDERAL AGENCY
APPRAISAL OF EXISTING SITUATION	Congress authorizes new decision-making body to make operating decisions for the river. New entity hires staff to appraise existing situation.	Appraisal conducted by the one operating agency.	Appraisal conducted by the Federal agency.
PUBLIC PROCESS TO OBTAIN PROPOSALS	New entity initiates and conducts public involvement program.	Public involvement program conducted by the one operating agency.	Public involvement program conducted by the Federal agency.
DEFINE OPTIONS	Options proposed by new entity or its staff.	The operating agency screens options and combines into alternatives.	The Federal agency screens options and proposes.
ANALYSIS OF OPTIONS & ENVIRONMENTAL COMPLIANCE	Analysis conducted by new entity. SOR agencies consult with NMFS & USFWS.	Analysis conducted by the operating agency. SOR agencies consult with NMFS & USFWS.	Options: analysis conducted by Federal agency analysis conducted jointly by Federal agency and SOR agencies. SOR agencies consult with NMFS & USFWS.
PUBLIC REVIEW OF OPTIONS	Public review process designed and conducted by new entity management.	Public review process designed and conducted by the operating agency.	Public review process designed and conducted by the Federal agency.
SUMMARY AND EVALUATION OF ALTERNATIVES	Summary and evaluation made by staff of new entity under the direction of management.	Evaluation prepared by the operating agency and transmitted to operating agencies.	Evaluation prepared by the Federal agency and transmitted to operating agencies.
DECISIONMAKING	Decision made by new entity and rationale described to public and Federal agencies.	Decision made by the operating agency and rationale described to the public and other Federal agencies.	Decision made by Federal agency and rationale described to public and other Federal agencies.
COMMUNICATION TO OPERATING GROUPS	Annual Operating Plan transmitted to Federal agencies.	Annual Operating Plan transmitted to the other operating agency and others.	Annual Operating Plan transmitted to operating agencies and others.
IMPLEMENTATION	Projects operated by Bureau of Reclamation and Corps of Engineers under direction of new entity.	Projects operated by Bureau of Reclamation and Corps of Engineers under direction of the operating agency.	Projects operated by Bureau of Reclamation and Corps of Engineers under direction of the other Federal agency.

3.5 WHAT WOULD A FORUM LOOK LIKE IN ACTION

This description of alternatives is necessarily brief. In order to illustrate what the operations of a forum would be like in actual practice, a hypothetical

scenario has been prepared describing one of the alternatives -- Forum 4 -- and is provided below. This is just for illustration purposes, and is not intended to prejudge the selection of any particular alternative.

A Hypothetical Scenario THE FEDERAL CONSULTATION FORUM

By 1998, the five Federal agencies with jurisdiction for Federal action on the Columbia River had signed an agreement outlining a joint planning cycle permitting planning decisions of all the agencies to be made in the same time frame, and defining the consultation process between the agencies.

Under this agreement, each agency agreed to annually designate a staff person who would be a full-time member of a Columbia River planning and operations team. This team was set up to be in existence for a minimum of 2 years. During the first year the team would be the staff responsible for planning the operations for the following year, subject to decisionmaking by the five agencies. During the second year the team would actually manage the operations of the river based on the plan it developed. The team would then be responsible for evaluating how well the actual operations succeeded in meeting the objectives of the plan.

The members of the team were housed in a single office, with adequate support staff. The then current managers of river operations were made available to the team on an "as needed" basis. [In the second year the first team was joined by a new team, which occasionally sat in on meetings about operations decisions as a way of increasing its knowledge of river operations.]

The year began with the publication of an annual report which summarized the past year's operations, the current and predicted water conditions, and issues (such as new research about the linkages between flows and fisheries). There was also an Annual Operations Symposium. The symposium provided a more extended discussion of the information in the report, followed by workshops during which participants had an opportunity to prepare and submit Proposed Operations. All Proposed Operations had to be submitted by a specific date (about 15 days after the symposium), much like a contracting proposal, and had to contain specific information, in order to be considered.

One of the responsibilities of the five agency team was to develop a computerized model that would permit groups advocating an operation to get a quick (in less than 15 minutes) statement of the potential consequences of that proposal. Although this model was not available in the first year, in subsequent years it was used in workshops during which regional interests could try out "what if" proposals before submitting their actual Proposed Operations.

Each of the four Northwest states, an organization representing Indian tribes, and the PNCA were then invited to select a member who would serve as part of a task force along with the five member team described above. The role of the task force was to review the proposed operations, then develop a recommended operations plan. The five agencies made a commitment that if the task force was able to reach agreement on a proposal, the agencies would circulate this proposal as their draft plan, subject to public review. [This process was based on the negotiated rulemaking procedures followed by U.S. EPA and others.] Task force decisions on each Proposed Operation were documented so that the proponent could be informed if the proposal had been adopted, and if not, why not.

The task force was able to develop consensus on all but two issues, and defined the alternatives and the basis for disagreement on those two alternatives. The five agencies announced the task force recommendations as the agencies' draft plan, and invited public comment on the draft, including the options on the two unresolved issues. A newsletter was distributed describing the draft plan and the options. In addition, individuals or groups which had proposed an operation received a notice informing them of the disposition of their Proposed Operation under the draft plan. Four public meetings were held regionally. In addition, public comment was accepted by mail. A summary of public comment was then prepared.

A final meeting occurred, attended by the Administrator and Regional Directors of the five Federal agencies. During this meeting the five-member team presented the draft plan, followed by any members of the task force who wished to comment, and a summary of the public comment received in meetings or in writing. Although called a "hearing," this meeting was an informal process during which the five decision makers could ask questions and interact with the presenters. The room was arranged so that the five decision makers were seated like a panel at one table, with a panel table opposite them for presenters. In addition, the decision makers could, by mutual agreement, call in outside experts or leaders of interest groups whose opinion they wanted to hear before reaching a decision.

Following the "hearing," the five decision makers had a 15-day period during which they negotiated an agreement on a final plan. The agreed-upon plan was documented in a brief Record of Decision that was distributed to everyone who participated in the process in any manner (e.g. by submitting a proposal, attending a public meeting, or writing a comment) or to appropriate mailing lists of the five agencies.

The five member planning team then became the operations management team for the coming year, and a new planning team began the cycle over again.

CHAPTER 4

EVALUATION METHODOLOGY

As presented elsewhere, the SOR lead agencies first concluded that there were no environmental impacts associated with the Forum alternatives, since environmental impacts are associated with the content of decisions being made, not the administrative process by which they were made. The SOR lead agencies then turned to developing “institutional criteria” designed to assess how well each Forum alternative satisfied the purposes for the Forum.

Initially the SOR identified the following list of criteria for an effective Regional Forum:

- Results in clear, understandable procedures
- Develops understanding/educates public about river operations
- Develops clear, implementable SOS
- Allows for future changes
- Reduces legal/political challenges
- Consolidates decisionmaking
- Keeping costs minimal
 - Cost to get in place
 - Cost to operate annually
 - Cost to Participate
 - State, tribes, and other Federal agencies
 - Non-governmental organizations
- Promotes trust
- Provides equitable treatment of all river uses
- Maintains accountability

Subsequently, the SOR lead agencies attempted to evaluate the alternatives shown in Chapter 3 using

these criteria. This experience led staff to conclude that certain of the criteria did not distinguish between alternatives. The list of criteria that did not distinguish between alternatives included:

- Results in clear, understandable procedures
- Develops understanding/educates public about river operations
- Develops clear, implementable System Operations Strategy
- Allows for future changes

Further analysis showed that these four criteria are actually better treated as objectives for designing alternatives. It is certainly desirable, for example, to have clear, understandable procedures. But this remains true regardless of which alternative is selected, and there was no basis for assuming that one of the alternatives would do a better job of generating clear, understandable procedures than any of the others. The same rationale applied to the other three criteria.

Based on this preliminary analysis, the following criteria were found to be useful in discriminating between alternatives:

- Reduces legal/political challenges: The new Forum has sufficient credibility that decisions made by the Forum are not as frequently challenged politically or legally. Decisions “count,” once made.
- Consolidates decisionmaking: The new Forum successfully consolidates the number of other places/forums where decisions are made. The ultimate goal would be “one-stop decisionmaking.”
- Cost to implement: This criterion has three elements:

- Cost to get in place: The costs to get the needed authorities, agreements, or funding to implement the alternative.
- Cost to operate annually: The cost to operate the Forum once it is in place.
- Cost to build staff capability: The costs of getting staff fully educated and competent to perform new tasks.
- Cost to Participate: This criterion has to do with the time, staff costs, and energy it takes for all parties to participate in decisions. The costs to participate could be different for each alternative depending on the type of organization. The two types of organizations that were analyzed are:
 - State, tribes, and other Federal agencies
 - Non-governmental organizations
- Trust: Confidence or faith in the decision makers to make a wise decision, or to consult with the public in a fair, and open manner.
- Equitable treatment of all river uses: The extent to which all groups perceive they receive the same treatment from the Forum as any other group.
- Accountability: The extent to which it is clear who is responsible for making decisions and accepts political, legal and financial responsibility for those decisions.

After identifying the criteria, the SOR lead agencies conducted another internal workshop. This workshop demonstrated that the criteria above were useful in discriminating between alternatives. However, there were considerable differences of opinion within the team on how well the alternatives fit the criteria. In fact, depending on the assumptions used, and projections about how the public might react, exactly opposite rankings of alternatives were made based on the same criteria.

The SOR lead agencies then presented the alternatives and proposed evaluation criteria at a stakeholders workshop. Participants included representatives from power interests, fish interests, Indian tribes, flood control interests, a representative from a Governor's office, and the NPPC.

Participants argued that the real issue was "who made the decision, and for what purposes." They recommended the creation of an additional "single-agency decision maker" option. They also observed that different sets of assumptions could result in significantly different rankings even using the same criteria.

Based on the stakeholders workshop, the SOR lead agencies added a "single Federal agency decision maker" option. In addition, the SOR lead agencies added an analysis based on who makes the decision (control), and how much involvement the public has in decisionmaking.

A new draft was then prepared and another stakeholder workshop was held. During this workshop concerns were expressed that the region was already "over-processed." If the proposed Forum would reduce the number of processes, it was argued, then it might be desirable. If it was simply a new process, overlaid on top of existing processes, it would be undesirable. The lead agencies were urged to develop an alternative to reduce the amount of "process" by consolidating or synchronizing processes.

During an internal workshop, the lead agencies carefully analyzed the potential for consolidating or synchronizing processes. Several of the most significant processes, such as the deliberations of the NPPC or actions under the Endangered Species Act, are established by law and cannot be eliminated without Congressional action. That leaves the possibility of synchronizing processes, and developing a shared process for generating the information upon which decisions could be made. At the present time, it appears that the most serious disconnect is between the planning process used by the SOR lead agencies, and the process by which decisions are made to take actions to protect fisheries under the terms of the Endangered Species Act. In part this is

because the NMFS and USFWS have essentially been operating under “emergency” conditions. As a result, decisions are sometimes made right up to and into the operational year that conflict with decisions made in the annual operations planning processes of the SOR agencies. Considerable potential exists for streamlining existing conditions if the five agencies can negotiate a consultation process and joint planning cycle that still protects each agency’s ability to carry out its mandate.

Based on this analysis, the study team added an additional option (Forum 4) called the “Decision-making by a Federal Consultation Forum + public involvement program conducted by Federal Consultation Forum” option. Although having a five-agency decisionmaking process may not seem to

represent much of a consolidation, it may represent a considerable reduction in time and cost if there is no need for two completely separate processes.

Based on the combined results of several internal workshops, and the stakeholder workshops, the SOR lead agencies have concluded that beyond certain generalizations it is extremely difficult to evaluate the alternatives without specifying assumptions, as different assumptions may lead to very different conclusions about the impacts of the options. The evaluation shown in Chapter 5 attempts to identify alternative assumptions, and the conclusions that might be drawn based on those assumptions. These assumptions include assumptions of both the SOR lead agencies and participants in the stakeholders’ workshop.

CHAPTER 5

COMPARISON OF ALTERNATIVES

The comparison of alternatives first addresses environmental impacts, then discusses the institutional criteria discussed in Chapter 4.

5.1 ENVIRONMENTAL IMPACTS

The SOR lead agencies have concluded that environmental effects result from implementing the System Operating Strategy and are therefore related to the content of decisions about river operations rather than the process used to reach those decisions. Thus, it is concluded that *there are no environmental impacts associated with any of the Forum alternatives.*

The only basis for determining that one Forum alternative would be environmentally preferable to another would be if one could predict with certainty what kind of decisions would be made by different Forums. The SOR agencies believe it is not possible to predict the content of decisions that would be made by a particular Forum based on the composition of the Forum or the amount and type of public involvement the Forum employs.

The SOR environmental analysis pertains to, and focuses on, the System Operating Strategy alternatives since decisions about these alternatives will have effects which must be considered by the SOR lead agencies as required by the National Environmental Policy Act (NEPA). Upon establishment of a Forum, future revisions to an operating strategy, annual implementation decisions, and other decisions which affect the strategy and its implementation, would have to be assessed by the SOR lead agencies to determine whether additional assessment of the environmental impacts of those decisions is required by NEPA. It is the SOR lead agencies' intent, however, that the SOR analysis will be broad enough in its consideration and assessment of oper-

ating strategy alternatives to enable future strategy refinements without major environmental reviews.

5.2 INSTITUTIONAL CRITERIA

This section provides a summary of the differences between the alternatives based on the institutional criteria discussed in Chapter 4. The alternatives evaluated include:

- FORUM 1: Decisionmaking by the SOR lead agencies and a public involvement program conducted by the SOR lead agencies.
- FORUM 2: Decisionmaking by the SOR lead agencies and recommendation by an existing regional entity.
- FORUM 3: Decisionmaking by the SOR lead agencies and recommendation by a new entity.
- FORUM 4: Decisionmaking by a Federal Consultation Forum (all Federal agencies with jurisdiction) and a public involvement program conducted by the Federal Consultation Forum.
- FORUM 5: Decisionmaking by a New Entity and a complete public involvement program.
- FORUM 6: Decisionmaking by one Federal operating agency (e.g., Corps or Reclamation) and a public involvement program conducted by the Federal operating agency.
- FORUM 7: Decisionmaking by one other Federal agency (e.g., NMFS) and a public involvement program conducted by this Federal agency.

A more detailed description of these alternatives was provided in Chapter 3.

The anticipated institutional impacts of these alternatives is provided below. These impacts are also summarized in Tables 5-1 and 5-2 at the end of this section.

5.2.1 Criterion: Consolidates Decisionmaking

This criterion has to do with the number of points at which people can influence a decision. The goal (with this criterion) is to consolidate all the various decisionmaking processes, providing all the parties with just “one bite” at each decision.

FORUM 5 (Decisionmaking by a new entity), FORUM 6 (Decisionmaking by one of the existing operating agencies); and FORUM 7 (Decisionmaking by one other Federal agency), all would consolidate decisionmaking in the hands of a single agency. Thus, all three alternatives would result in consolidation, and are considered equal in this respect. FORUM 4 (Decisionmaking by a Federal Consultation Forum (five Federal agencies) represents a consolidation over the existing situation because there would be only one decisionmaking process, albeit five decision makers.

FORUM 1 (SOR agencies decision making - public involvement program conducted by SOR agencies) presents no change from the existing condition. FORUM 2 (Recommendation by an existing entity) and FORUM 3 (Recommendation by a new entity) could actually increase the number of points at which people attempt to influence the decision. Interests might attempt to influence the initial recommendation, then also attempt to influence the agencies to alter or accept the recommendation.

5.2.2 Criterion: Reduces Legal/Political Challenges

This criterion relates to whether or not the decisions of the Forum would have sufficient legitimacy to reduce the number of legal or political challenges.

Discussions with stakeholders showed conflicting positions. Some argued that FORUM 5 (Decisionmaking by a new entity) would result in reduced

legal or political challenges because the parties would all be at the table. Others argued that these alternatives would merely change who sues whom. In the long-run, they argued, the only thing that will reduce political and/or legal challenges is if all the parties are in agreement on the substantive decision.

FORUMS 1 through 3 do not change who makes the final decision, i.e., the three operating agencies. These alternatives might result in increased credibility for decisions, which could have some impact on litigation. However, if the basis for litigation is the substantive decision, these alternatives do not necessarily lead to a different substantive decision. FORUM 4 increases the number of decision makers, but might reduce legal or political challenges because the ESA agencies are sitting at the table with the SOR agencies. FORUMS 6 and 7 reduce the number of decision makers, but there is no basis for assuming that they would result in different substantive decisions.

5.2.3 Criterion: Trust

In theory, trust would be related to such dimensions as the openness and visibility of decisionmaking. In practice, trust is often strongly related to the degree to which a particular agency has a mandate that favors a particular use. To the extent one group feels greater trust towards an agency because it knows its concerns will be considered, others are likely to mistrust that agency, for fear the other user's concerns will be given undue consideration.

FORUMS 1 through 3 preserve the existing SOR decision makers. If there is increased trust, it would result from the opportunity to participate in a public involvement program. Whether or not FORUMS 2 or 3 would result in more trust, because someone other than the three operating agencies is involved in developing a recommendation, is somewhat uncertain. For those who currently mistrust the three operating agencies, some greater trust might result. Those who trust the three operating agencies might experience a loss of trust if another entity was given the task of developing a recommendation.

Under FORUMS 6 and 7, a single existing Federal agency would make the decision, and the different groups would have different levels of trust based on the degree to which they were confident the agency was supportive of their aims.

FORUM 4 acknowledges that with the addition of decisions about actions under the Endangered Species Act, there are in fact five decisionmaking agencies. Possibly the acknowledgment of that fact, and the inclusions of all five agencies at the same table, could result in improved trust. The same argument could be made that FORUM 5 (Decision-making by a new entity) might result in somewhat higher trust, since all uses would be represented at the table. Even that conclusion rests, however, on the assumption that the Congressional process that leads to establishment of the new entity is credible, and the representation on the decisionmaking entity is perceived as equitable.

5.2.4 Criterion: Equitable Treatment Of All Uses

Depending on the representation of the decision-making body, FORUM 5 may be perceived as more equitable than any of the other alternatives, except by those users who have a traditional relationship with the SOR lead agencies and would prefer to see things left as they are. FORUMS 2, 3 and 4 may be perceived as more equitable than FORUM 1, because entities other than the three operating agencies would be involved in developing a recommendation. There is no basis for assuming that either FORUMS 6 or 7 would offer more equitable treatment than FORUMS 1 through 3.

5.2.5 Criterion: Accountability

This criterion has to do with whether it is clear who is politically and legally responsible for decisions made by the Forum. FORUMS 5, 6, and 7 could result in increased accountability if the Congressional authorization transferring power to the single decisionmaking entity makes a clear transfer of accountability from the other agencies to the chosen agency. It is possible to forecast a situation, though, where Congress transfers some part of the authority

to one agency, but not all of it, leaving the situation even more confused.

FORUMS 1 through 3 (Three agency decisionmaking) do result in somewhat divided accountability -- in theory there is always going to be somewhat clearer accountability when there's only one decision maker, not three. However, the authorities of the three agencies have been long established, and challenged sufficiently in the Courts, that accountability is reasonably well defined. FORUM 4 also has multiple decision makers, and conceivably there could be legal challenges to the ESA agencies working in a cooperative manner with the SOR agencies. FORUMS 5, 6, and 7 could lead to a period of time during which their legal accountability is tested in the Courts.

5.2.6 Criterion: Cost To Implement - To Get In Place

FORUM 1 is essentially the existing situation, with enhanced public involvement, so there are few costs to put it in place. FORUMS 2 and 3 would also be within the power of the agencies to implement, although these alternatives would conceivably require getting Secretarial and OMB approval under the Federal Advisory Committee Act. Executive Order 12838, issued February 10, 1993, sharply restricts the ability to get this approval. As a result, FORUMS 2 and 3 might require Congressional authorization. FORUM 4 would not require either Congressional approval or Federal Advisory Committee Act approval (although the task force described in the illustration example might require approval). FORUMS 5 through 7 would require Congressional authorization. Congressional authorization is not only a time-consuming and expensive process, but the resulting legislation could include provisions that would be unacceptable to the Region.

5.2.7 Criterion: Cost To Implement - Annual Operation

A genuine consolidation of decisionmaking under FORUMS 5, 6, and 7 could result in a reduction in annual operating costs. However, if a new entity is

created (FORUM 6) or a transfer of decisionmaking authority (FORUMS 6 and 7) is made without a clear reduction in the authority of the other Federal agencies, annual implementation costs could be increased, as an additional layer of decisionmaking would be added. There would also be added costs for any new entity to develop the staff capability that currently resides in the SOR agencies. By consolidating the SOR and ESA decisionmaking processes, and utilizing the same data gathering process, FORUM 4 should result in reduced costs compared to the existing situation, although possibly less of a reduction than under FORUMS 5, 6, and 7.

FORUM 1 would result in somewhat increased costs to conduct a public involvement program. Presumably, under FORUMS 2 and 3, the SOR lead agencies would reimburse either the existing agency or the new entity for its work in developing a recommendation. This would mean some additional cost.

5.2.8 Criterion: Cost To Participate

Costs to participate (for non-SOR agencies or the public) could be reduced if FORUMS 6 and 7 result in a consolidation of the decisionmaking process. FORUM 4 might result in reduced costs to participate if groups are currently participating in two separate processes, one for SOR and one for ESA decisionmaking. FORUM 5 might result in higher costs to participate if parties are expected to provide representation or staffing for the new entity. FORUM 1 probably does not result in a significant difference in cost to participate, although a highly visible public involvement program might reduce costs, because the process for attempting to influence the decision would be better understood. FORUMS 2 and 3 may actually result in somewhat higher costs to participate, because parties would probably want to attempt to influence both the recommendations and the final decision.

5.3 COMPARISON BY ALTERNATIVE

Based on the analysis above, a brief discussion of the strength/weaknesses of each of the alternatives is presented below. The information presented is

identical to that provided above except it is organized by alternatives rather than by objectives.

5.3.1 FORUM 1: Decisionmaking by the SOR lead agencies and public involvement program conducted by SOR lead agencies.

The primary strength of this alternative is that there are few costs to implement it. The three operating agencies could simply decide to do implement this alternative at any time. This alternative does not consolidate decisionmaking. It may reduce legal/political challenges to decisions to the extent those challenges are based upon the absence of a visible decisionmaking process. If legal challenges are instead based on substantive decisions, then this alternative would not reduce challenges, and could actually increase them. Complete public involvement process might result in somewhat increased trust and might increase the perception that all uses were treated equitably. It probably does not materially improve accountability (although it does create visibility for the decisionmaking process) nor alter the costs to participate. It would represent an increase in cost over the existing condition, but would be less costly than having a recommendation developed by an other entity.

5.3.2 FORUM 2: Decisionmaking by the SOR lead agencies and recommendation by an existing regional entity.

The primary strengths of this option are that it might result in somewhat increased trust and perception of equitable treatment than FORUM 1; it might result in reduced legal or political challenges; yet is still within the authority of the agencies to implement without Congressional authorization. This alternative does not alter accountability (although it increases visibility). Costs to participate might go up somewhat, since interests may feel obliged to participate both with the recommending agency and with the three operating agencies. Cost to operate would be somewhat greater than FORUM 1, somewhat less than FORUM 3 (because a new agency structure would not have to be created).

Table 5-1. Summary Comparison of Forum Alternatives

PROCESS STEPS	FORUM 1 SOR LEAD AGENCIES	FORUM 2 EXISTING ENTITY	FORUM 3 NEW ENTITY	FORUM 4 FEDERAL CONSULTATION FORUM
Consolidates Decisionmaking	no change	little change; may add one additional point for influencing decision	little change; may add one additional point for influencing decision	improved - consolidates to one process
Reduces Legal/Political Challenges	no change if challenge is based on content; may improve credibility through a more open process	no change if challenge is based on content; may improve if the existing entity is perceived as neutral	no change if challenge is based on content; may improve if the new entity is perceived as neutral	no change if challenge is based on content; may improve due to consolidation
Trust	greater trust for those aligned with traditional interests	improved for those who are suspicious of SOR lead agencies	improved for those who are suspicious of SOR lead agencies	improved by bringing river uses to decision table
Equitable Treatment of All Uses	no change	no change or slight improvement if existing entity represents all uses	more equitable because all interests represented	more equitable
Accountability	no change	could improve political accountability; might allow decision makers to "hide" behind entity's recommendations	could improve political accountability; might allow decision makers to "hide" behind entity's recommendations	no change to slight improvement
Cost to Implement To Get in Place	no change	requires memorandum of understanding and/or Federal Advisory Committee Act authorization	requires agreement on membership, Congressional approval and Federal Advisory Committee Act authorization	requires agreement on consultation process
Cost to Implement Annual Operation	slight increase	slight increase to cover new activities	increase to cover new activities	slight decrease due to consolidation
Cost to Participate	no change	somewhat higher to influence recommendations and decisions	somewhat higher to influence	recommendations and decisions slight decrease

Table 5-1. Summary Comparison of Forum Alternatives - (CONT)

PROCESS STEPS	FORUM 5 DECISION BY NEW ENTITY	FORUM 6 DECISION BY ONE OPERATING AGENCY	FORUM 7 DECISION BY ONE OTHER FEDERAL AGENCY
Consolidates Decisionmaking	improves - consolidates decisions into one entity	improves - consolidates decisions into one entity	improves - consolidates decisions into one entity
Reduces Legal/Political Challenges	uncertain - improvement with all parties at the table or no change other than who sues who	number of decisionmakers reduced but may result in little or no change	number of decisionmakers reduced but may result in little or no change
Trust	significant improvement if all uses at table; may fail depending on how the new entity is set up	possible improvement if individual interests are aligned with the one operating agency	possible improvement if individual interests are aligned with the federal agency
Equitable Treatment of All Uses	more equitable	no change	no change
Accountability	increased, but may be confused; may be difficult to confer on new entity legal accountability	increased, but may be confused depending on set up	increased, but may be confused depending on set up
Cost to Implement To Get in Place	requires Congressional authorization	requires Congressional authorization	requires Congressional authorization
Cost to Implement Annual Operation	reduced if decisionmaking is consolidated; increased if no clear authority given	reduced if decisionmaking is consolidated; increased if no clear transfer in authority given	reduced if decisionmaking is consolidated; increased if no clear transfer in authority given
Cost to Participate	increase for representation	reduced if decisionmaking is consolidated	reduced if decisionmaking is consolidated

Table 5-2. Summary of Evaluation of Forum Alternatives

Evaluation: Criteria:	FORUM 1	FORUM 2	FORUM 3	FORUM 4	FORUM 5	FORUM 6	FORUM 7
Consolidates Decisionmaking	0	0 or +	0 or +	+	+	+	+
Reduces Legal/Political Challenges	0 or +						
Trust	0	++	++	++	+++	+	+
Equitable Treatment of All Uses	0	0 or +	++	++	++	0	0
Accountability	0	+ or -	+ or -	0 or +	+	+	+
Cost to Implement - To Get in Place	0	-	---	-	---	---	---
Cost to Implement - Annual Operation	-	-	---	+	- or +	- or +	- or +
Cost to Participate	0	-	-	+	---	+	+

KEY: better (+), worse (-), neutral or no change (0)

5.3.3 FORUM 3: Decisionmaking by the SOR lead agencies and recommendation by a new entity.

The analysis for this alternative is similar to that for FORUM 2 except that a recommendation developed by a new entity created for this explicit purpose might have greater credibility (trust, equitable treatment, reduction of legal/political challenges). On the other hand, the costs both to create and operate a new entity would be somewhat higher than in FORUM 2.

5.3.4 FORUM 4: Decisionmaking by a Federal Consultation Forum and a public involvement program conducted by the Federal Consultation Forum.

One of the advantages of FORUM 4 is that it can, like FORUM 1, be implemented without Congressional Authorization or Federal Advisory Committee Act authorization. It could result in somewhat reduced costs to participate if it results in a joint SOR/ESA decisionmaking process, rather than two separate processes. There will be costs associated with the initial negotiations between the agencies to

develop agreement on the consultation process between them, although these would be relatively modest compared to the start-up costs of a new entity. Trust and credibility might be increased somewhat over the existing situation, and over FORUM 1, because the ESA agencies would be at the table with the SOR agencies. The downside could be difficulties between the five agencies in arriving at a decision, although the potential for that problem already exists.

5.3.5 FORUM 5: Decisionmaking by a New Entity and a public involvement program conducted by the New Entity.

Because this new entity would be created specifically to ensure representation of all the interests, it would conceivably have the highest credibility (trust, equitable treatment, reduction of legal/political challenges) of all the alternatives. However it would require Congressional authorization, and it would create the highest costs to operate because it would require creating a permanent new entity.

5.3.6 FORUM 6: Decisionmaking by one Federal operating agency and a public involvement program conducted by one Federal operating agency.

This option would have the advantage of consoli-

dating decisionmaking, and it would not require creation of a new bureaucracy. It might also reduce total costs. However, it would require Congressional authorization. There is little reason to believe it would materially affect credibility (trust, equitable treatment, legal/political challenges).

5.3.7 FORUM 7: Decisionmaking by one other Federal agency and a public involvement program conducted by one other Federal agency.

The analysis for this option is similar to that for FORUM 5. Since the other Federal agency to which decisionmaking would be transferred would, presumably, be an agency which a major mandate for fish and wildlife, groups concerned about fish and wildlife might view this option as more credible than FORUM 5. However, groups with a traditional relationship to the existing operating agencies might view this option as having considerably less credibility. There might be somewhat greater costs in transferring decisionmaking to an agency other than one of the existing operating agencies.

CHAPTER 6

PUBLIC COMMENT ON FORUM ALTERNATIVES

This chapter provides a synopsis of the comments about the Forum alternatives received from individuals and organization in response to publication of the Draft EIS and Technical Appendix Q, Columbia

River Regional Forum Appendix. The comments are summarized in Table 6–1. Although it is a summary, it endeavors to accurately reflect the intent and spirit of the comment.

Table 6–1. Synopsis of Public Comment

<p>COLUMBIA RIVER ALLIANCE</p> <ul style="list-style-type: none"> • While there should be consultation with NMFS and the Northwest Power Planning Council, final decisions should be the collective responsibility of the three SOR lead agencies. • The Alliance would oppose any attempt to broaden the NPPC's responsibilities or authorities. • We don't need new authorities, we need a pragmatic competent approach by the three federal agencies. <p>COLUMBIA RIVER INTER-TRIBAL FISH COMMISSION</p> <ul style="list-style-type: none"> • The Columbia River Regional Forum does not provide Columbia Basin state fishery agencies and tribes a meaningful role in hydrosystem planning and operation as required by rulings in <u>Idaho v. NMFS</u> and <u>Yakima v. NPPC</u>. <p>DEPARTMENT OF INTERIOR - OFFICE OF THE SECRETARY</p> <ul style="list-style-type: none"> • The Final EIS should explain the conclusion that because the alternatives are institutional, they do not have environmental impacts that need to be covered in a NEPA document. This conclusion is not intuitively obvious. Any scenario dealing with decision making over dam operations could have major impacts to the environment.
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Table 6-1. Synopsis of Public Comment - (CONT)

DIRECT SERVICES INDUSTRIES, INC.

- The DSIs oppose the creation of yet another Salmon process through a "Columbia River Forum." This would dilute your authority and accountability and bog the Region down in further salmon process at the expense of Salmon results.
- The Columbia River Regional Forum is a step-away from the Congressionally-prescribed process for management of federal water projects.
- There is no value in creating a broader forum to assure the public "a continuous role in helping shape decisions."
- The DSIs oppose efforts to broaden the regulatory responsibilities of entities, particularly fishery agencies and tribes, which pursue harvest-related objectives without the sense of balance between fish and power needs.

IDAHO DEPARTMENT OF WATER RESOURCES

- There is a need for a forum, but the right to plan for and manage the use of Idaho's water resources must remain at the state level. The Department will oppose any attempt to create a federal or regional entity with authority to manage Idaho's water. A restricted form of River Basin Commission is the type of forum needed.

LING, NIELSEN & ROBINSON - attorneys at law

- The Columbia River Regional Forum attempts to grant to the Indian tribes, organized environmental and citizen groups and state and federal fish and wildlife agencies a role in shaping future decisions on the Columbia River system, while ignoring the parties (the State of Idaho and those persons holding vested water rights in the State of Idaho) with a primary interest so long as flow augmentation on the upper Snake River is a part of the SOS.

LOWER COLUMBIA RIVER WATER QUALITY STUDY

- The following five criteria were recommended:
 - Broadest opportunity for involving the interested public
 - Decision making process should be inclusive rather than exclusive
 - Process should clearly identify what the choices are and there should be a specific process for informing the public what the decisions are and why
 - Coordination with other multi-agency groups involved in management of the river system
 - Whatever option is selected should be blended into a more integrated planning and management process

Table 6-1. Synopsis of Public Comment - (CONT)

THE MOUNTAINEERS

- There is no useful purpose for a Columbia River Forum -- it duplicates the NPPC. Suggest removal of this chapter from the EIS.

NORTHWEST POWER PLANNING COUNCIL

- Description of alternatives is inadequate:
 - Does not include an adequate discussion of the statutory obligations of the three SOR agencies under the Regional Act.
 - Option I, the "no action" alternative, does not discuss the Council's fish and wild-life program or current amendment process
- There is a need to coordinate the federal agencies' involvement in the river and an equally obvious need to involve a wider spectrum of interests in planning for the river's use.
- An exclusively federal process that treats regional policies as solely "recommendations" is not satisfactory.
- The Northwest Power Act provides a mechanism for building these considerations into a coordination process. The operating agencies should concentrate on making that process work.
- The Council is considering changes in its rulemaking process to one that proposes a broader process for decision making in the basin -- we invite you to work with us on it.

DAN OGDEN, attorney

- The best option would be to resurrect the Pacific Northwest River Basins Commission. Only minor modifications would be needed to make it a workable structure for inclusion of stakeholders in the decision making process.

OREGON DEPARTMENT OF ENVIRONMENTAL QUALITY

- Endorsed the criteria from the Lower Columbia River Water Quality Study.

PACIFIC NORTHWEST UTILITIES CONFERENCE COMMITTEE

- The three SOR lead agencies should put forth their preferred alternative now, even before the FEIS is published. Congress has given the operating agencies mandates to plan and operate the federal projects.

U.S. ENVIRONMENTAL PROTECTION AGENCY

- We encourage the SOR lead agencies to employ the "adaptive management" approach being developed by the Department of Interior for dam and reservoir operations.

CHAPTER 7**PROPOSED INTERIM ACTION**

As noted in Chapter 1, the establishment of a Regional Forum is an administrative process that does not result in impacts upon the environment and therefore does not require analysis in a NEPA context. The composition of and procedures followed by a decision making body cannot -- in and of themselves -- be used to predict a particular decision with definable impacts on the environment. Nevertheless, because of the relationship to the other SOR actions, the SOR lead agencies have prepared this Technical Appendix to provide opportunities for review and comment upon Forum alternatives.

Because the Forum is not subject to NEPA documentation requirements, the SOR lead agencies are not required to formally identify a Preferred Alternative. However, the SOR agencies want the public to know of its proposed action. This chapter describes our analysis of the existing situation, given recent events such as the 1995 Biological Opinions, a proposed interim action, and an assessment of the proposed action.

7.1 ANALYSIS OF EXISTING SITUATION

In many ways, recent events have overtaken the discussion of the need for a Forum. When this analysis was begun, the agencies heard frequent comments based on the perception that the PNCA served as the place where "real" operating decisions were made. Since fisheries interests did not have a seat at the PNCA table, it was argued that there was an inequity, with fisheries interests receiving inadequate representation. Power users, on the other hand, argued that a joint power and non-power decision making process was unduly cumbersome, could delay the annual planning process and did not provide sufficient predictability for long-term power resource planning.

In 1991 and 1992, the National Marine Fisheries Service listed sockeye and then chinook under the provisions of the Endangered Species Act. Subsequently the U.S. Fish & Wildlife Service issued a Biological Opinion regarding sturgeon and other species. These actions have considerably altered the planning process, and require extensive consultation between the SOR lead agencies and NMFS and the USFWS. In addition, there have been judicial reviews of many of the actions.

The world of power generation has changed as well. The Bonneville Power Administration has alerted the region that it is preparing for the possibility of a competitive world in which the cost of BPA power could be approximately the same as for other sources of power. In addition, changes in Federal regulations make it easier for power generators, public or private, to transport power over the existing transmission grid. BPA is taking significant actions to reduce costs and adopt a market-driven approach to the delivery of power services. This new competitive world has, however, introduced even more uncertainty into power resource planning.

Our analysis of the public comments shown in Chapter 6 is that there is no regional consensus to take the initiative to establish a new Regional Forum. The sparse number of comments received on this topic, and the contradictory nature of these comments does not give the SOR lead agencies a sense that there is any single alternative that enjoys the support of the region. Certainly the ESA listings have changed the perception that the "real" decisions are made by the PNCA. On the other hand, the ESA consultations have not simplified the process, made it more predictable, nor made the process more open and visible to all interested parties in the region.

7.2 PROPOSED INTERIM ACTION

In the absence of a regional consensus, the SOR lead agencies do not believe it is appropriate for Federal agencies to prescribe a forum to provide regional representation. On at least on interim basis, the SOR lead agencies propose to continue with the current decision making process, which is best described in the first alternative, Fom 1.

It should be noted, though, that although Fom 1 indicates decisions are made by the SOR lead agencies, these decisions are made only after extensive consultation with NMFS, USFWS. There must also be consultation with the NPPC. As a minimum, all five Federal agencies are clearly at the decision making table. On the other hand, the relationship between the parties is not that which is described in Fom 4. The Federal Consultation Forum described in Fom 4 would provide each of the five agencies a voice in all operating decisions. The present situation provides NMFS and the USFWS a voice in those decisions affecting anadromous fish.

A more detailed description of the current situation -- the proposed interim action -- is provided below:

7.2.1 System Operating Strategy

Upon publication of the System Operation Review EIS, and following consultation with NMFS and the USFWS, the SOR lead agencies will publish a Record of Decision describing the System Operating Strategy (SOS) to be used in the future. However, this SOS will allow for some degree of flexibility, and will be subject to annual scrutiny and modification in the future.

Figure 7-1 describes the mechanism by which future decisions will be made about system operating strategy. The SOR lead agencies will remain the decision makers. However, these decisions will take into account: 1) consultations with NMFS and the USFWS regarding protection of endangered species and species recovery planning; 2) the NPPC Fish and Wildlife Program Amendments; 3) recommendations received from the Technical Management Committee; and 4) the SOR lead agencies own communica-

tions with tribes and other users regarding the multiple-purpose uses of the Federal Columbia River Power System (FCRPS).

Technical support groups may be created to perform studies, as needed, to provide timely information to the SOR lead agencies, the Technical Management Team, the Fish Operations Executive Committee, NMFS, USFWS, and other interested parties.

This decision making process provides multiple points of access for the public to be involved in the decision. The NPPC Fish and Wildlife Program Amendments are developed with extensive public involvement. The SOR lead agencies anticipate that as the ESA consultations become more regular, forums will be created to ensure public involvement opportunities in these consultations. Meetings of the Technical Management Team will be open to the public, with opportunities for public comment. In addition, the SOR agencies provide numerous forums for public comment in agency decision making.

7.2.2 Annual Operating Plans

The process for developing annual operating plans is shown in Figure 7-2. As can be seen, this involves resolving three separate processes.

First, pursuant to the Columbia River Treaty with Canada, a document is prepared called the Assured Operating Plan (AOP). This plan defines usable Treaty reservoir storage space for power and flood control uses in the U.S. In actuality, each annual AOP defines the conditional reservoir rule curves that will be used six years later. These rule curves are applied to determine the cross-border flows that can be used on the U.S. side of the Columbia River.

Based on decisions by the Federal operating agencies, the non-power needs, such as fish flows, will be identified by the Technical Management Team and SOR lead agencies. They will prepare a Coordinated Plan of Operations that will include the non-power needs of the system. This document will govern actual operations and define expected performance for all Federal non-power requirements.

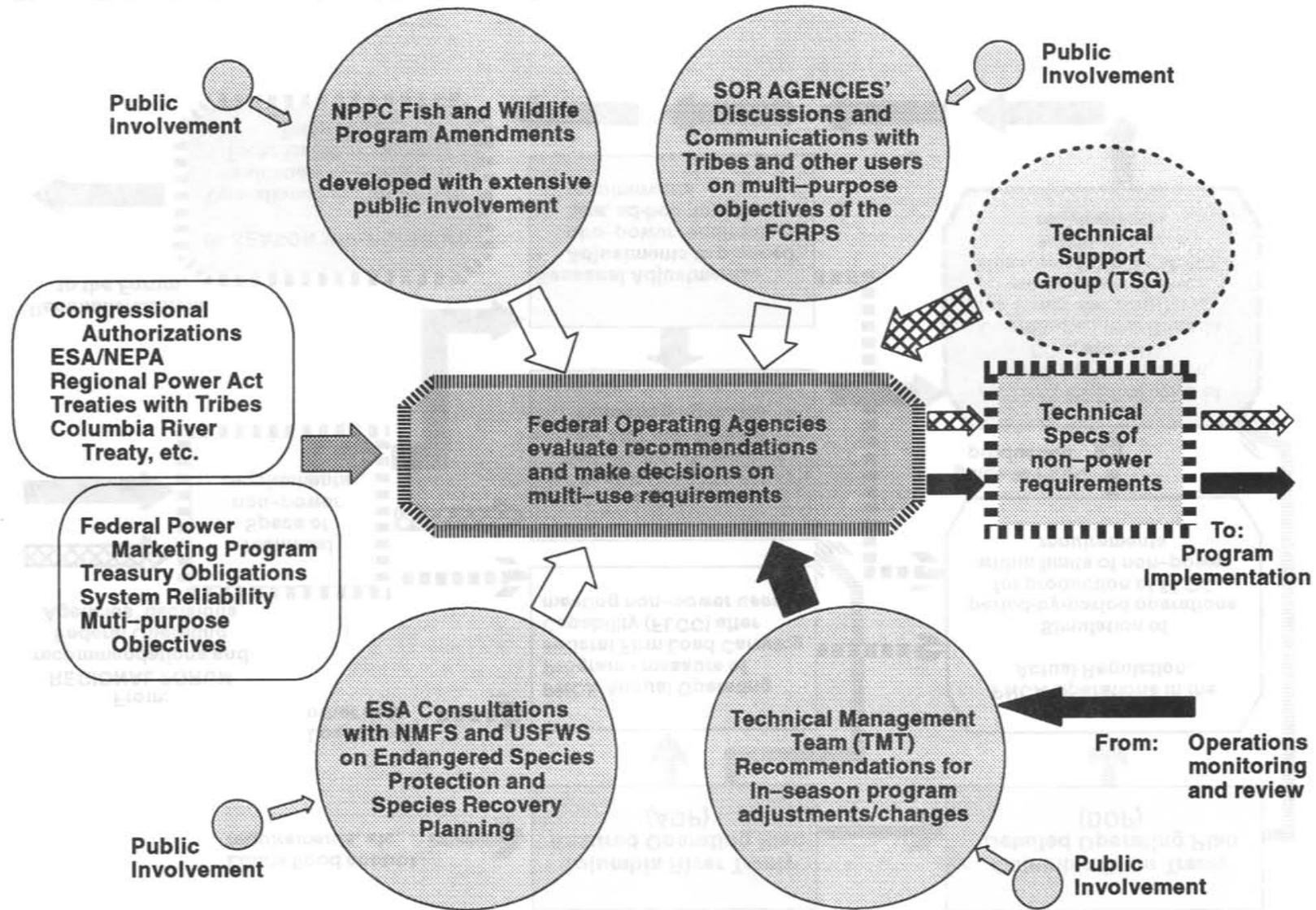


Figure 7-1. System Operation Strategy Development

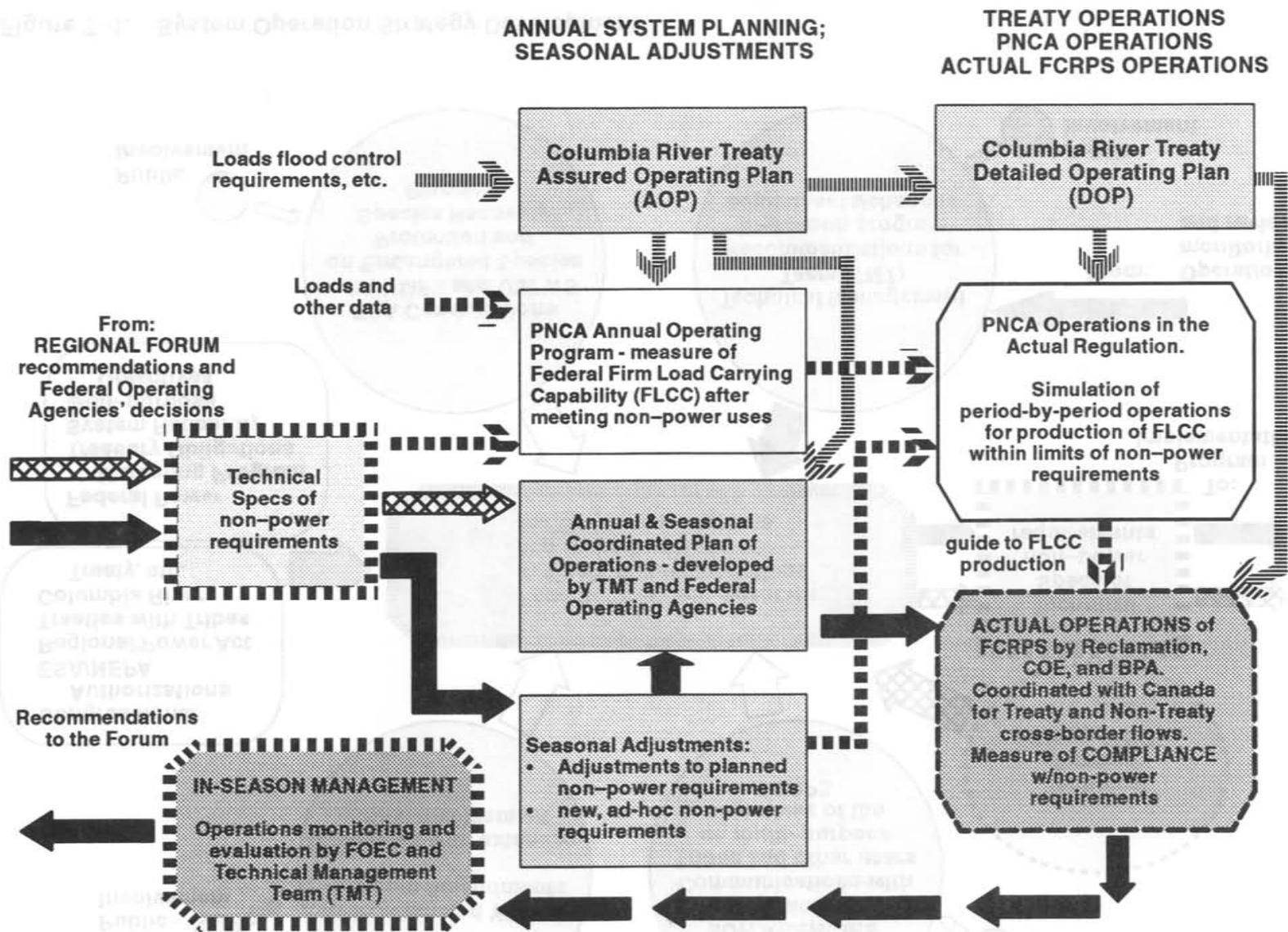


Figure 7-2. Implementation of the System Operating Strategy

The third element is PNCA planning for an annual operating program. This planning will govern PNCA hydroregulations which determine the production of monthly firm load carrying capability from the remaining flexibility of the system, after non-power needs are met.

7.2.3 Operations

Under the treaty with Canada and by agreement by a Treaty Operating Committee, a Detailed Operating Plan (DOP) may be developed to define actual Treaty storage rights and obligations during the upcoming operating year. This DOP can take into account the latest PNCA plan. PNCA operations are then simulated, using a program referred to as Actual Energy Regulation (AER). This program takes the cross-border flows from Treaty reservoirs into account, and then simulates a coordinated hydroelectric operation for both power and non-power requirements. The simulation process in the

AER results in an "accounting" for PNCA parties entitlements and obligations to load carrying capability. During the spring and summer season, the Technical Management Team will meet on a weekly basis to prepare recommendations for operations needed for the fish protection and recovery programs.

Actual operations of the Federal Columbia River Power System are determined by Reclamation or the Corps. These operations strive to operate within all the various plans, taking into account the actual amounts of water and flows in the river, and responding to events as they occur.

7.3 IMPACTS OF PROPOSED INTERIM ACTION

Below is an evaluation of how well the proposed interim action satisfies the criteria outlined in Chapter 5:

CRITERIA	EVALUATION
Consolidates decisionmaking	The impact of ESA consultations has actually been to increase the number of points at which people can influence a decision, rather than decrease them, as proposed in this criteria. Continuing the existing situation will mean that there will continue to be numerous points of access.
Reduces Legal/Political Challenges	The ESA listings have introduced a number of new legal issues into the planning process. It is likely that legal challenges will continue until some of the issues surrounding ESA are resolved by the courts. Continuing the existing situation will not provide new processes or procedures that could increase the number of legal challenges regarding how operating decisions are made.
Trust	Trust is a matter of perception. It is likely that those individuals or groups who believed that fisheries interests were not adequately addressed in the past are now more trusting of the process with NMFS and USFWS clearly part of the decision making process. Those concerned with power interests may be less trusting. Trust is likely to increase as people become used to the new circumstances and decision making procedures.

Equitable Treatment of All Uses	The comments regarding trust apply equally to the perception of equity.
Accountability	Accountability has been somewhat expanded in the present circumstance from three agencies to five, although in the final analysis the operating agencies retain accountability.
Cost to Implement - To Get in Place	Since the proposed interim action is the existing situation, it is, of course, the least expensive option.
Cost to Implement - Annual Operation	The existing situation does not result in a consolidation of decision making. Instead, each agency believes it must participate fully -- with attendant costs -- in order to influence the situation. This means that the costs of the existing decision making process are relatively high.
Cost to Participate	The costs to participate may also be very high because there continue to be a large number of points of access.

As can be seen, the proposed interim action does not satisfy a number of the criteria originally described in Chapter 5. The SOR lead agencies would have preferred a solution that simplified the decision making process, encouraged all interests to meet at the same table, and consolidated the number of points at which people attempt to influence the process. However, the SOR lead agencies do not believe it is appropriate to propose a more dramatic course of action when there is little regional consensus on any particular course of action, or even

agreement that changes need to be made in the decision making process.

The SOR agencies have described the proposed action as an "interim" action precisely because they believe that there are deficiencies in the present institutional arrangements. It is possible that once the Region has absorbed the impact of the ESA listings it may wish to consider new arrangements. If so, this appendix may provide some stimulus to the discussion of alternatives.

CHAPTER 8

LIST OF PREPARERS

Table 8-1. List of Preparers, Bonneville Power Administration

Name	Education/Years of Experience	Experience & Expertise	Role In Preparation
Robert Griffin	B.S. Engineering Science 28 years	System Operations and Power Management	Process Development and Technical Review
Philip Thor	B.S. Mechanical Engineering 18 years	Hydroregulation and System Operations	Process Development and Technical Review
Audrey Perino	M.A. Economics 16 years	Hydroregulation and Power Analysis	Process Development and Technical Review

Table 8-2. List of Preparers, Bureau of Reclamation

Name	Education/Years of Experience	Experience & Expertise	Role In Preparation
Jim Fodrea	B.S. Civil Engineering 20 years	Power System Planning and Operations	Process Development and Technical Review
Ron McKown	Ph.D. Zoology 21 years	Environmental Compliance	Process Development and Technical Review
John Dooley	B.S. Civil Engineering 29 years	Hydrology	Process Development and Technical Review

Table 8-3. List of Preparers, Corps of Engineers

Name	Education/Years of Experience	Experience & Expertise	Role In Preparation
Witt Anderson	M.S. Resource Management 17 years	Water Resource Planning	Process Development and Technical Review
Ray Jaren	B.S. Civil Engineering 33 years	Water Resource Planning	Process Development and Technical Review

Table 8-4. List of Preparers, Consultants

Name	Education/Years of Experience	Experience & Expertise	Role In Preparation
James L. Creighton	Ph.D. Psychology 25 years	Public Involvement, Dispute Resolution and Social Impact Assessment	Process Development and Lead Author
Steve Derby	Ph.D. Engineering Economic System 25 years	Decision Analysis	Process Development and Technical Review

EXHIBIT A

DESCRIPTIONS OF OTHER FORUMS FROM AROUND THE COUNTRY

A brief description of each of these entities is provided below:

Adaptive Management Program

Source of Information: Glen Canyon Dam Preliminary Final Environmental Impact Statement

The Adaptive Management Program (AMP) is part of the decision that will be made by the Secretary of Interior with the issuance of the Glen Canyon Dam EIS (GCDEIS). Despite extensive studies, there continue to be substantial uncertainties regarding the downstream impacts of releases from Glen Canyon Dam. To quote the Preliminary Final EIS: "The concept of adaptive management is based on a recognized need for operational flexibility to respond to future monitoring and research findings and varying resource conditions."

The purpose of the AMP is to develop modifications to Glen Canyon Dam operations and exercise other authorities to protect, mitigate, and improve the values for which the Glen Canyon National Recreation Area and Grand Canyon National Park were established.

Five principles guided the design of the AMP organization:

- Monitoring and research programs should be designed by qualified researchers in direct response to the needs of management agencies
- A process is required to coordinate and communicate management agency needs to researchers and develop recommendations for decision making

- A forum is required for the transfer of monitoring and research investigation results to the management agencies and to develop consensus on management response to information on affected conditions, trends, and processes
- All monitoring and research programs should be independently reviewed
- Interested parties identified in the Glen Canyon Protection Act should be provided opportunity for full and timely participation in proposals and recommendations

The AMP is administered by a senior Interior Department official (Designee) and facilitated through an Adaptive Management Work Group (AMWG). The Interior Department designee will serve as the Chair of the Adaptive Management Work group. The AMWG will be chartered as a federal advisory committee under the Federal Advisory Committee Act. The membership of the AMWG will include each of the cooperating agencies associated with the EIS, each of the Colorado River Basin States, and two representatives each from environmental groups, recreation interests, and contractors for Federal power from Glen Canyon Dam. Representation from the interest groups will be on a rotating basis, with terms lasting two years. The AMWG will make recommendations to the Secretary's designee and facilitate consultation with all interests. In the event that one or more entity does not support the recommendation, their views and concerns will be sent along with the recommendation.

Specifically, the work group will:

- Provide the framework for AMP policy, goals, and direction
- Develop recommendations for modifying operating criteria and other resource management actions
- Facilitate coordination and input from interested parties
- Review and forward the annual report to the Secretary and his designee on current and projected year operations
- Review and forward annual budget proposals
- Ensure coordination of operating criteria changes in the Annual Operating Plan for Colorado River Reservoirs and other ongoing activities.

The AMWG will, in turn, be supported by three other organizational elements: a Monitoring and Research Center, a Technical Work Group, and an Independent Review Panel (see Figure A-1).

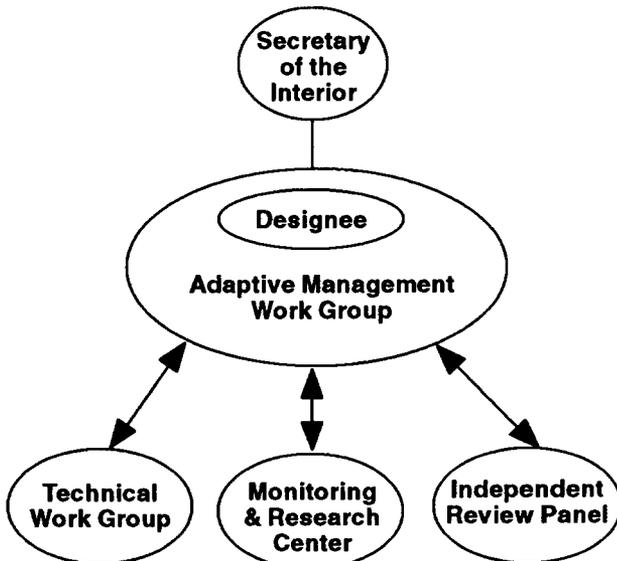


Figure A-1. Organizational Structure Adaptive Management Program

Technical Work Group

The technical work group will be comprised of technical representatives from Federal, State, and Tribal governments, and other interests appointed by the member agencies or interests represented on the AMWG. The group will translate AMWG policy and goals into resource management objectives and establish criteria and standards for long-term monitoring and research in response to the Glen Canyon Protection Act. These will be used by the research center in developing monitoring and research. The Technical Work Group will meet two to four times annually, as necessary.

Monitoring and Research Center

The Preliminary Final EIS recommends the establishment of a monitoring and research center within the U.S. Geological Survey or the National Biological Survey. The center will establish a long-term monitoring and research program under the direction of a research director and a group of program managers. The research director will be selected by the Secretary. All adaptive management research programs will be coordinated through the center including monitoring and research related to such issues as biological sciences, cultural resources, social sciences, engineering, infrastructure operations, and Native American coordination. A Native American Coordinator will ensure integration of tribal concerns with all other monitoring and research elements.

Specific duties include:

- Develop research designs and proposals for implementing monitoring and research identified by the AMWG.
- Manage all monitoring and research on resources affected by dam operations.
- Manage and maintain the GCES information data base, monitoring

and research programs, and other data sources as appropriate

- Administer research proposals through a competitive process, as appropriate
- Coordinate, prepare, and distribute technical reports and recommendations for review and as final products
- Coordinate review of the monitoring and research program with independent review panel(s)
- Prepare and forward technical management recommendations and annual reports to the AMWG

Independent Review Panel

The responsibilities of the independent review board will include:

- Annual review of the monitoring and research program
- Technical advice as requested by the center or AMWG
- Five-year review of monitoring and research protocols

Additional consultation opportunities will be provided with states, tribes, the academic and scientific communities, power users, and interest groups.

Endangered Species consultation has occurred between the Bureau of Reclamation and the U.S. Fish & Wildlife Service. Uncertainty remains about the impacts of operations on endangered fish. In particular, the USFWS would like to conduct some research test flows involving low, steady flows in summer and fall, combined with higher, steady spring flows. The studies will be included as part of the Monitoring and Research Center research program. Upon completion of the research flows and analysis of the data, Reclamation would implement any necessary changes in operating criteria to comply with the Endangered Species Act through the AMP.

Association of Bay Area Governments (ABAG)

Person Interviewed: Jose Rodriguez,
ABAG staff

ABAG was set up as a Joint Powers Agreement by the cities and counties in the San Francisco Bay Area. Each city and county selects a representative to serve on the Board of Directors, which in turn selects a Director, who selects the staff. Membership and payment of membership fees is voluntary. ABAG has little statutory authority. Basically ABAG is a regional planning entity that advises the cities and counties, although the cities and counties retain the actual permitting authority.

The only thing that has given ABAG -- and most regional planning authorities -- any significant statutory authority is that several Federal agencies, under Federal law, delegate responsibilities to the regional planning entity. This applies to water quality planning, air quality planning, and transportation planning. ABAG does not have all these authorities, because there are separate regional air quality and transportation agencies, but many regional planning agencies have these authorities and they give them considerable clout. ABAG does review all applications from cities and counties to HUD, to ensure consistency with the Regional Plan. While this is Advisory to HUD, HUD consistently turns down applications that are inconsistent with the Regional Plan.

Chesapeake Bay Program

Person Interviewed: Ed Stilgall,
Assistant Director

The Chesapeake Bay Program is headed by an Executive Committee consisting of the EPA Administrator, the Governors of the three affected states, the Mayor of the District of Columbia, and the Chair of the Chesapeake Bay Commission [more on the

Commission in a moment]. This Executive Committee has high enough status that the members of the group vie to be Chair. Its role is policy development.

The day-to-day management of the program is provided by an Implementation Committee. This Committee is Chaired by the Director of the Chesapeake Bay program, an EPA employee. Other members include representatives of the 11 Federal agencies and the three states. Each of the participating agencies provides dedicated staff from their agency who are physically located at the Chesapeake Bay Program.

There is also a series of subcommittees, one for each program area. For example, there is a subcommittee that oversees the monitoring program, another for the living resources (wildlife habitat) program, and another for non-point sources.

But the real success of the program comes from the fact that the states have also established the Chesapeake Bay Commission. The Commission has statutory authority in each of the legislatures. Each state appoints 4 members to the Commission and contributes \$100,000 for staff. The reason the

Commission is crucial is that it can bring about legislative implementation of the program. By the time the Program and the Commission are in agreement on legislation needed for implementation, it takes the legislature only a few months to pass it. As far as known, this is the only one of these regional programs where there is a parallel legislative structure, and this is credited with much of the success of this program.

There is a very substantial public participation and public outreach program. There is a continuous series of workshops and seminars. A recent seminar drew 900 people!

The outreach program is primarily implemented by Federal staff, but there is an

oversight group in which the public relations people for each of the three Governors play a key role. The public relations person for the Chair of the Executive Committee, for example, reviews all press releases issued by the program.

Gulf of Mexico Program

Person Interviewed Laura Radde,
EPA/Program staff

This program is responsible for developing and administering EPA's cleanup and protection plan for the Gulf of Mexico. EPA is the lead agency, but there are five states involved and numerous state and Federal agencies that have an interest and a role in implementation. Until now the Gulf of Mexico Program has been primarily a planning effort, but it is just now moving into implementation.

The Program is headed by a Policy Board that consists of executive-level representation from the Federal agencies, a single representative from each of the five Gulf states, and the Chair of the citizen's committee (a citizen). The state representatives are appointed by the Governors, with the concurrence of the EPA Regional Administrators.

The actual operations of the Program are directed by a Management Committee, whose membership echoes the Policy Committee. The Program Director and Deputy Director are EPA staff. The other Federal and state agencies provide full-time staff who are physically located in the Program Office. As the program moves into implementation, these staff are being upgraded to Associate Director status in the hope that this will aide commitment to implementation.

There are also 10 technical committees, each reflecting one of the 10 program priorities. These committees include technical staff from the agencies, as well as representatives from industry, environmental groups, etc.

They tried to have a single representative for each state, but found that multiple agencies within each staff felt they had to have representation. At the same time, there have also been complaints that the committee structure creates a substantial burden on the agency and groups which want to participate. The Program finds that there has to be a periodic rejuvenation of the technical committees, part of which is to remind them of their purpose. There is a Technical Steering Group which coordinates the activities of the technical committees.

There is also a Citizens Advisory Committee. Each state has five representatives on the committee, and each represents a constituency; e.g., agriculture, tourism, environmental, industry, etc. They are appointed by the Governors.

In the final analysis, decisions are made by EPA Headquarters. The Program does not have a Congressional mandate, although there are some bills in the hopper that may change that. The Policy Review Board is set up under the Federal Advisory Committee Act, although that was an afterthought.

The way they ensure that EPA does not get crossways with the Policy Group is that there are key EPA staff at all levels of the structure, so that EPA management is never taken by surprise. The issues usually get resolved before EPA management and the Policy Board get at cross purposes. [While this has worked with the Gulf of Mexico Program, it apparently hasn't worked as well in some other EPA Programs.]

One of the keys to success is a considerable effort to keep everybody informed. With all the various committee members and staff there are 450 people who play some role in the structure. There is an electronic bulletin board that can be accessed by anyone with a computer and a modem. There is also a bi-weekly bulletin to everybody in the program, as well as a regular newsletter.

Puget Sound Water Quality Authority

Person Interviewed: Nancy McKay,
Executive Director

The Puget Sound Water Quality Authority is actually an outgrowth of an advisory committee that was set up to comment on issues related to water quality in Puget Sound. In 1985, the state legislature formally established the Puget Sound Water Authority, granting it authority to be the planning entity for Puget Sound water quality issues.

The board of the authority consists of nine members: the Director of the Washington Department of Ecology, the Director of the State Lands Commission, and seven citizens, one from each of the Congressional districts touching the Sound.

The basic responsibility of the agency is to develop a water quality plan and revise it every two years. It also comments on major activities by any of the local governmental entities that could have an impact on the Sound. It is also required to submit a periodic report to the legislature, and this has provided an important vehicle for recommending needed legislation and for getting media attention on important issues.

Several years ago the Authority was realigned slightly, and the Director of the Department of Ecology is now automatically the Chair of the Authority. There are those who support this arrangement and others who question it. Those who support it note that about 50% of the Authority's implementation requires action by the Department of Ecology. Before the Director of Ecology was the Chair, Ecology would send a mid-level manager. Now the Director attends in person and there is much higher commitment to implementation. Those who don't like the arrangement claim that it makes it difficult for the Authority to comment critically on Ecology's actions, even though that may be important to the success of the program.

There is confusion about whether the Authority's plan is mandatory: some parts of the statute seem to say one thing, one another. So the Authority's real work is to persuade others to implement its program. The Authority has been successful in getting the legislature to commit \$45,000,000 of cigarette tax money to be used exclusively for water quality programs. Another \$1,000,000 of cigarette tax money is available for funding local entities to engage in public involvement activities.

There is a massive public involvement program. There is one public involvement person assigned to each of the 12 counties, with each of these people responsible for building relationships with the stakeholders in those counties and being on top of issues in the counties that could affect water quality. Other staff are assigned by constituency. The staff have found from experience that state-wide organizations do not necessarily represent the sentiments of the members. There are also advisory groups covering numerous topics.

The current staff consists of 25 full-time employee plus some contractors. Staff levels have been as high as 35 in the past.

Ohio River Commission

Source of Information: E.A. Joering, *The Ohio River Basin Commission: How to Manage a River Basin Without Threatening or Expanding Existing Authorities*, American Water Resources Association, May 1980.

The Ohio River Basin includes 11 states (Illinois, Indiana, Kentucky, Maryland, New York, North Carolina, Ohio, Pennsylvania, Tennessee, Virginia, West Virginia). There are ten Federal agencies with responsibilities that involve them in decisionmaking related

to the basin (Agriculture, Army, Commerce, Energy, Environmental Protection Agency, Federal Emergency Management Agency, Health and Human Services, Housing and Urban Development, Interior, Transportation). There is also an interstate entity, the Ohio River Valley Water Sanitation Commission (ORANSCO), that oversees much of the effort to abate municipal and industrial pollution along the river.

The present Commission is an outgrowth of a comprehensive study, begun in 1962, which was overseen by a coordinating committee chaired by the Corps of Engineers. This \$5,000,000 study assessed the problems existing and anticipated through the year 2020 and identified potential solutions. One of the conclusions of this study was that a permanent organization should be formed that would allow committee members to work together in a coordinated fashion to plan for the use of the basin's water and related land resources. The Ohio River Basin Commission was established in 1971 under Title II of the Water Resources Planning Act of 1965. The Commission: (1) coordinates all the water and related land plans in the basin whether Federal, state, local, or private; (2) prepares a plan of development for the use of the resources, and (3) recommends priorities for implementation.

The state members of the Commission are appointed by the Governors of each state, while the Federal members are appointed by the Secretaries of each Federal department. Typically the head of natural resources in each state represents that state, and the regional director of each Federal agency represents that state. A member of ORANSCO, the interstate group, also sits on the Commission Board. The Commission is chaired by a Presidential Appointee. A small technical staff is employed by the Commission. A Citizen Advisory Council with more than 120 members also advises the Board. Commission funds come from assessments of

each state, matched by Federal dollars. At the time the article referenced above was written, 2.5 Federal dollars were put in for every state dollar.

One of the unique features of this Commission is that the authorizing legislation requires that recommendations of the

Commission be made by "consensus." The interpretation of "consensus" agreed to by the Commission is that no member formally objects to the recommendation. Since much of the impact of the Commission rests upon voluntary implementation or the political credibility of Commission recommendations, this consensus rule appears to be workable.