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CHAPTER 1 – PURPOSE AND NEED FOR ACTION

- **Describes the problem for which this final environmental impact statement (EIS) examines alternative solutions.**
 - **Outlines Bonneville Power Administration's (BPA) role, the scope of its involvement, and factors to consider in its decision.**
 - **Introduces the major participants and processes involved in addressing the problem.**
 - **Identifies the decisions to be supported by this Final EIS.**
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1.1 INTRODUCTION

BPA has prepared this Fish and Wildlife Implementation Plan (FWIP) EIS to examine the possible environmental consequences of its decision to implement and fund a Policy Direction for fish and wildlife mitigation and recovery efforts in the Pacific Northwest. A broad range of Policy Directions is reflected within the alternatives considered in the FWIP EIS. This range of Policy Directions serves as a foundation from which to build an understanding of the overall environmental consequences for making a decision on a Policy Direction, or combination of Policy Directions, to follow now and in the future. This EIS also incorporates several key ongoing regional fish and wildlife processes. These combined processes, as described in Section 1.3.2, will shape and establish a regional fish and wildlife Policy Direction that BPA will use to guide its current and future mitigation and recovery efforts, including its funding of those efforts. BPA is preparing this EIS now because (1) many species of fish and wildlife are already considered to be at risk (further delay must be minimized), (2) BPA wants to be fully informed and ready to respond promptly when a regional Policy Direction(s) is being selected or changed, and (3) if the Region is unable to reach agreement on a Policy Direction, BPA needs to be able to move forward with a Policy Direction that best reflects the regional view.

Policy Direction: *The overarching theme that guides and shapes the decisions made by governments, agencies, or other public bodies regarding fish and wildlife mitigation and recovery efforts, applied through a series of actions that form an implementation plan.*

Note that BPA will select a Policy Direction that reflects the different policies and actions currently being developed within the Region. Any chosen Policy Direction will be shaped by existing laws, regional processes, and other mandates that BPA must follow. These laws and mandates may change at any time in the future, as public opinion and priorities change. These changes could lead to corresponding modifications to any Policy Direction BPA may have chosen.

More specifically, this EIS is designed:

- (1) to evaluate the range of reasonable Policy Directions** and the potential implementing and funding actions associated with such Policy Directions that the Region could decide to take for fish and wildlife mitigation and recovery efforts;
- (2) to determine the environmental consequences** of BPA's implementation and funding of the actions that could emerge from the Policy Directions;
- (3) to show how the specific Policy Direction is identified** at any given time by using a unified planning approach. The Region's governing bodies together may identify a Policy Direction, or a default policy may be identified by taking guidance from the independent actions planned and taken by the many involved parties attempting to recover fish and wildlife populations in the Region; and
- (4) to facilitate short- and long-term decisionmaking** by the BPA Administrator or other parties who may use the information contained in the EIS.

An environmental impact statement is a document that presents an analysis of the potential environmental effects of a major Federal action and its reasonable alternatives. It is required by the National Environmental Policy Act (NEPA) when the consequences of that action may be significant. After incorporation of public review and comment, the EIS is used by agency decisionmakers to select the best alternative for action to meet a defined need.

Resource Demands. The Pacific Northwest has long prided itself on its bountiful and diverse natural resources—its forests and grasslands, minerals and rivers, fish and wildlife. The Region has also relied on these natural resources to serve multiple, and sometimes conflicting, uses. Human uses can compromise and severely deplete these resources, even eliminate them. The independent demands of the whole spectrum of human uses (such as irrigation, municipal water supplies, grazing, fishing and hunting, electric power production, recreation, timber harvest, development, and transportation) have placed increasing stress on the natural resources of the Columbia River Basin and the Region. One consequence is that, over the last decade, the number of fish and wildlife species listed as endangered or threatened under the Endangered Species Act (ESA) has increased dramatically.

Endangered: A species in danger of extinction throughout all or a significant portion of its range.

Threatened: A species that is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range.

Recognizing this trend, the public and private interests of the Pacific Northwest have tried to mitigate these stresses—to improve the status of fish and wildlife and their habitats, especially those that are considered threatened or endangered. Mitigation, as defined by NEPA, can take several forms:

- avoiding actions that might have a negative impact;
- minimizing impacts by limiting human actions;
- rectifying the impact by repairing, rehabilitating, or restoring the affected environment;
- working to preserve and maintain a resource; and
- compensating for the impact by replacing or providing substitute resources or environments.¹

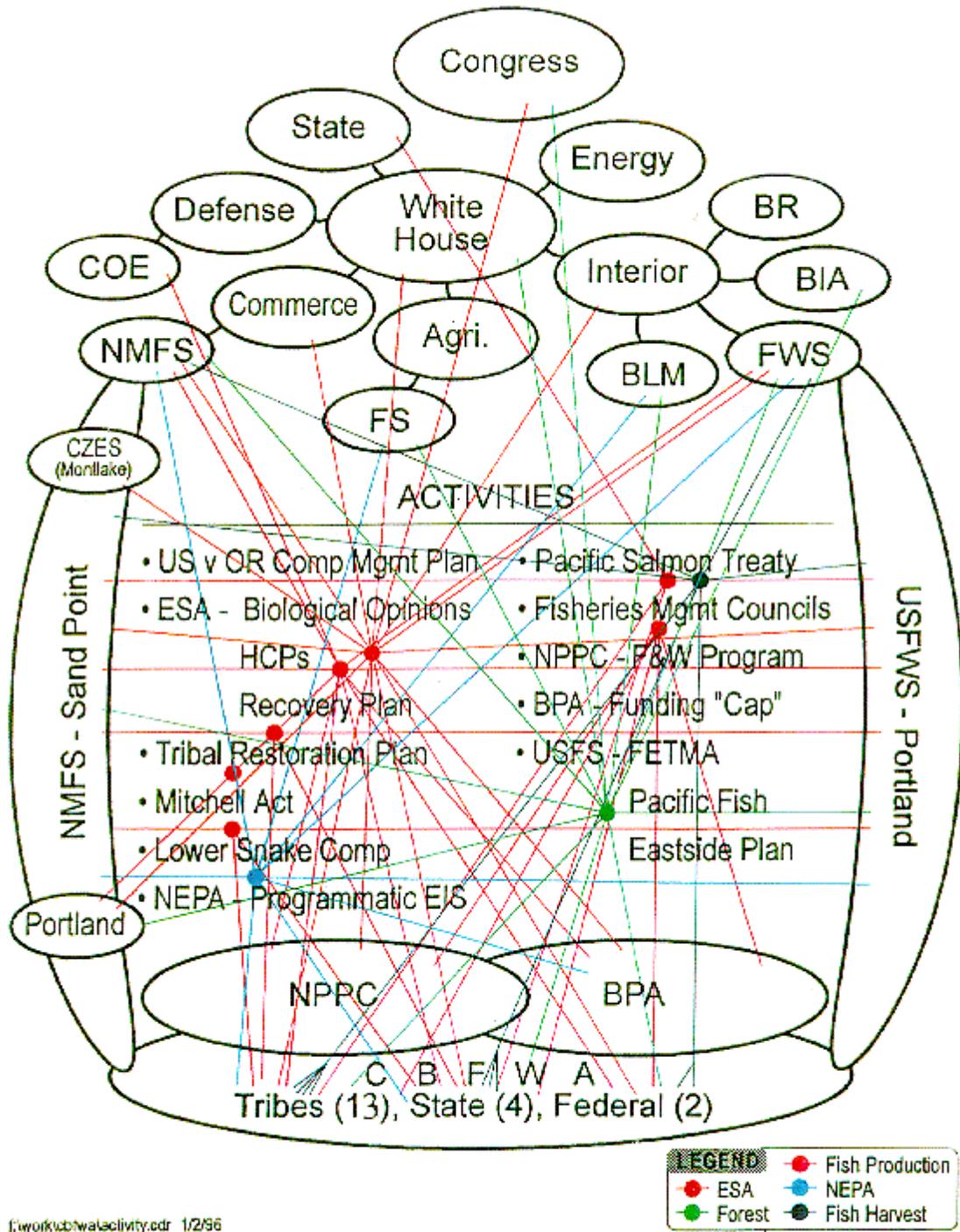
Lack of Management Coordination. For several decades, a variety of Federal, state, and tribal entities within the Pacific Northwest have been managing fish and wildlife resources. Each entity has its own legal constraints, policy directives, and constituent interests. There is no formally recognized "umbrella" organization or overall Policy Direction to help coordinate or reconcile the entities' respective actions. This situation has played an important role in keeping the Region from reaching common goals to support healthy, self-sustaining fish and wildlife resources. The Fish and Wildlife Activity Map (Figure 1-1) shows an example of the number and overlapping tangle of authorities.²

Past Attempts to Address the Problem. Over the last 10 years, the Region has sought to stem and even reverse species decline. Regional governmental entities, interest groups, and citizens have intensified their efforts to determine how best to mitigate effects (impacts) on fish and wildlife populations.

¹ CEQ (Council on Environmental Quality) 1987, Section 1508.20.

² The figure is reproduced exactly as it was transcribed at a meeting to identify issues and interested parties. BR = Bureau of Reclamation; BIA = Bureau of Indian Affairs; Agri. = Department of Agriculture; FS/USFS = U.S. Forest Service; BLM = Bureau of Land Management; FWS = U.S. Fish & Wildlife Service; NMFS = National Marine Fisheries Service; CZES = Coastal Zone Estuary Study; COE = U.S. Army Corps of Engineers; NPPC = Northwest Power Planning Council; CBFWA = Columbia Basin Fish and Wildlife Authority; ESA = Endangered Species Act; HCP = Habitat Conservation Plan; FETMA = Forest Ecological Timber Management Assessment.

Figure 1-1: Fish and Wildlife Activity Map



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NOTE: This diagram was an actual attempt in 1996 to capture the connections between the numerous complexities of the regional fish and wildlife activities.

Lack of Progress. Unfortunately, after more than a decade of good intentions, there has been less progress than necessary to reverse species decline. Some important reasons are:

- (1) **Different groups have different values and priorities, leading to different (and often conflicting) ideas about what recovery and mitigation efforts should be.** For example, some groups want to maximize fish production, while others want to preserve biological diversity. Such conflicting ideologies have made reaching a consensus extremely difficult.
- (2) **There is no clear and agreed-upon scientific answer to the problem.** Many factors affect the decline and recovery of fish and wildlife populations. Substantial scientific disagreement exists even today as to the best means to rebuild ecosystems and recover populations.
- (3) **Conflicting directives and jurisdictions of regional authorities have meant that funds dedicated to fish and wildlife mitigation and recovery efforts have often been used less efficiently and effectively than they otherwise could have been.** The Region has not been able to launch a fully coordinated mitigation and recovery plan. There have been delayed, inconsistent, piecemeal, and contradictory actions. Attempts to correct problems for one species have, in some cases, caused problems for other species. The Region has been unable to agree on how to gather or review information to determine whether certain actions are working, so that the actions can be expanded, amended, or stopped. This means that more money is spent than is necessary, and that more benefits could be obtained for the same amount of money.

Unified Planning Approach. Recently, however, regional entities have taken more steps to work together to develop a **comprehensive and coordinated planning approach for mitigation and recovery efforts**. Any such approach must involve, for example, coordinating policies and programs under the ESA, the Pacific Northwest Electric Power Planning and Conservation Act (Regional Act), the Clean Water Act (CWA), and trust and treaty obligations with the tribes, along with other obligations. A unified planning approach is based upon the premise that all fish and wildlife resources are interrelated parts of a single ecosystem, and that humans are integral components of the ecosystem through their many and diverse activities. Therefore, the needs of humans, fish, and wildlife must be addressed together and simultaneously. BPA supports this move toward a more unified planning approach, and is one of the many participants involved (see Section 1.3.1).

BPA has certain roles and responsibilities in the fish and wildlife mitigation and recovery effort and in the unified planning approach:

- BPA must responsibly use ratepayer money to fund and implement certain fish and wildlife mitigation and recovery actions in accordance with its obligations under statutes and regulations (e.g., under the ESA and Regional Act; see Section 1.2.1).
- BPA recognizes it must take action in response to fish and wildlife policy, whether a unified planning approach is successfully developed and adopted

(active policy selection) or whether the Region just continues as it has in the recent past (default policy selection—status quo).

The FWIP EIS. Because environmental analysis and public process will be necessary to fully inform BPA and the public of the consequences of funding and implementing various actions, BPA has prepared this EIS. BPA has analyzed a range of alternative Policy Directions to determine their environmental consequences, as well as their potential effects on BPA's implementation and funding responsibilities now and in the future.

It is important to understand what BPA is *not* doing:

- **BPA is not unilaterally creating new Policy Direction alternatives.** The Policy Direction alternatives described and evaluated in this EIS are based on *alternatives developed within the existing and ongoing policy initiatives within the Region*. We closely studied the proposals submitted by all the major participants in the many processes underway, followed the development of key issues, and sorted and grouped the ideas together by overall theme. We synthesized five Policy Direction action alternatives (plus a baseline alternative, Status Quo—no change from the approach present when the EIS was being drafted), from a range of options and presented them in the Draft EIS (June 2001). Volume 3 of this Final EIS lists hundreds of Sample Implementation Actions drawn from these proposals, and used to further define the Policy Direction through potential actions.
- **BPA is not unilaterally selecting a Policy Direction for the Region.** BPA is working hard, through its implementation of the National Marine Fisheries Service (NMFS)³ and U.S. Fish and Wildlife Service (USFWS) Biological Opinions (BiOps), and the Northwest Power Planning Council's (Council) Columbia River Basin Fish and Wildlife Program, to complete a unified fish and wildlife mitigation and recovery policy. However, the timing and ultimate success of that effort is uncertain. In any event, BPA is obligated to fund and implement fish and wildlife mitigation and recovery actions before, during, and after these policy-level deliberations. BPA also has a statutory obligation to understand the environmental consequences of its actions and provide an opportunity for the public to participate in agency decisionmaking.

The FWIP EIS is designed to meet the immediate and future needs of agency decisionmakers and the public for information regarding the impacts of mitigation and recovery actions proposed for implementation. However, if the Region fails to agree upon a Policy Direction, BPA must still implement and fund a fish and wildlife mitigation and recovery effort strategy. Therefore, after considering the comments received on the Draft EIS and guidance from recent regional fish and wildlife recovery efforts, we have developed a Preferred Alternative (PA 2002). The PA 2002 is composed

³ In 2002, NMFS changed its name and is now known as NOAA Fisheries.

primarily of elements from two of the five base alternatives examined in this EIS (see Chapter 3).

Section 1.2 below focuses on BPA's role and its purpose and need in undertaking this environmental study. Section 1.3 lays out the background essential to understanding the process itself, covering the major participants involved in the unified planning effort, the studies and environmental documents that support the current work, and the different processes that form the background and impetus for this EIS.

BPA is an agency of the U.S. Department of Energy. It wholesales electric power produced at 31 Federal projects located in the Columbia-Snake River Basin in the northwestern United States, as well as the power from one non-Federal nuclear plant and renewable resources. BPA is a co-manager of the Federal hydroelectric projects, but it does not own or operate them. BPA also promotes conservation and renewable resources. BPA is one of four Federal power marketing agencies (PMAs) within the Department of Energy.

Today, BPA sells about 46% of the electric power consumed in its service territory, which includes the states of Oregon, Washington, Idaho, and the portion of Montana west of the Continental Divide. BPA also directly serves small portions of California, Nevada, Utah, and Wyoming. In addition, it markets surplus power to California and the Southwest, as well as British Columbia, Canada. BPA's service territory covers approximately 775,000 square kilometers (300,000 square miles). To deliver power, BPA owns and operates one of the largest high-voltage electrical transmission systems in the world, with over 24,140 kilometers (15,000 miles) of transmission lines.

1.2 BPA'S PURPOSES AND NEED

1.2.1 Need

BPA needs a comprehensive and consistent policy to guide the implementation and funding of its fish and wildlife mitigation and recovery efforts.

BPA's fish and wildlife responsibilities originate from several sources:

- The Regional Act extended BPA's responsibilities to include development of energy conservation resources and enhancement of Northwest fish and wildlife that have been affected by construction and operation of the Federal Columbia

River Power System (FCRPS).⁴ Under the Regional Act, BPA has specific duties:

- (1) to protect, mitigate, and enhance fish and wildlife adversely affected by the construction and operation of the FCRPS;
 - (2) to do so in a manner that provides equitable treatment for such fish and wildlife with the other purposes of the FCRPS; and
 - (3) to assure the Pacific Northwest of an adequate, efficient, economical, and reliable power supply.
- BPA also has specific duties under the ESA:
 - (1) BPA must avoid jeopardizing listed species.
 - (2) BPA must comply with incidental take statements (see discussion of "jeopardy" and "take" in the description of the ESA in Section 2.3.2.1).
 - (3) BPA must use its authorities to conserve listed species.
 - BPA also recognizes that a trust responsibility derives from the historical relationship between the Federal government and the tribes, as expressed in treaties, statutes, Executive Orders, and Federal Indian case law. BPA is bound to uphold its share of the Indian trust and treaty responsibilities of the United States. The government's policy on trust and treaty responsibility to Columbia Basin tribes holds that the recovery of salmonid populations must achieve two goals:
 - (1) the recovery and delisting of salmonids listed under the ESA, and
 - (2) restoration of salmonid populations over time to a level that provides a sustainable harvest sufficient to allow for the meaningful exercise of tribal fishing rights.
 - BPA's own Tribal Policy, adopted in 1996, provides that BPA will consult with tribal governments to assure that tribal rights and concerns are considered before BPA takes actions or makes decisions that may affect tribal resources. Objectives of these consultations include the following:
 - (1) protecting tribal lifestyles, culture, religion, and economy; and
 - (2) striving toward mutually agreeable decisions reflecting a consensus.⁵

The EIS uses the phrase "mitigation and recovery" as shorthand for BPA's obligations to fish and wildlife under these and other laws.

⁴ The FCRPS includes 31 Federal hydro projects, on the combined Columbia and Snake Rivers, which are operated in part to provide hydroelectric power BPA transmits throughout the Pacific Northwest and, when there is surplus power, to other nearby areas. The projects are operated by the U.S. Army Corps of Engineers and the Bureau of Reclamation (not by BPA).

⁵ U.S. Department of Energy (USDOE)/BPA 1996b.

The Regional Act created the Council with responsibilities to develop a Columbia River Basin Fish and Wildlife Program. BPA must decide whether and to what extent it will provide the actual *funding of the Program*, through its ratepayer revenues. To date, BPA ratepayers have contributed over \$6 billion to the fish and wildlife mitigation and recovery effort. From 2002-2006, ratepayers are currently projected to be spending millions of dollars annually for direct program, reimbursable, and capital investment costs as part of the fish and wildlife effort. In addition, hydrosystem operation requirements for salmon recovery efforts have reduced hydropower generation in the Region by about 1,000 megawatts since March of 1995. This reduction has increased costs from replacement power and lost revenues.⁶

Although the responsibilities under the Regional Act and ESA are perhaps most often mentioned in discussions involving BPA's fish and wildlife mitigation and recovery obligations, other statutes, regulations, and treaties also bear upon BPA's fish and wildlife mitigation and recovery efforts. Many of these are discussed in Chapter 2 of this EIS. Additionally, BPA is not the only Pacific Northwest entity with interests in, and activities affecting, fish and wildlife (see Section 1.3). Many other entities manage fish and wildlife resources, each with its own legal constraints, policy directives, and constituent interests. And there exists no agreed-upon regional plan for coordinating these mitigation and recovery efforts. This lack of coordination has serious consequences. For example, recovery efforts have experienced significant duplication and delay that detract from the Region's ability to achieve a common goal, and ratepayer funds to support these efforts have been used less efficiently than they might be.

In its Business Plan EIS, BPA noted that there was great concern within BPA and in the Region about both the lack of progress and the increasing costs of the fish and wildlife mitigation and recovery effort. The agency's Business Plan needed to address how BPA's could fulfill both its mandated fish and wildlife responsibilities and its power marketing responsibilities in a business-like manner. BPA identified three broad dimensions of fish and wildlife administration that help define its potential directions and illustrate potential impacts under its Business Plan:

- 1) the relationship between BPA's responsibility to implement its mandated fish and wildlife responsibilities, and its accountability for results;
- 2) BPA's financial position—its ability to predict and stabilize its fish and wildlife costs; and
- 3) the administrative mechanisms for distributing the fish and wildlife dollars.⁷

All three of these issues underlie BPA's need to move forward with a clear Policy Direction to guide its implementation and funding of fish and wildlife mitigation and recovery. On behalf of the FCRPS, BPA currently funds a large share of the fish and wildlife mitigation and recovery efforts. BPA believes that a comprehensive and consistent policy would foster coordination and efficiency in fish and wildlife activities in

⁶ See Section 2.3.2.3 in Chapter 2 for details.

⁷ USDOE/BPA 1995a, Section 2.4.5.

the Region. Accordingly, BPA has prepared this EIS to examine the effects that may arise from implementing any of a range of fish and wildlife Policy Directions. These Policy Directions reflect and are generated from existing and ongoing regional processes. Those processes will shape and establish a regional fish and wildlife Policy Direction that BPA will use to guide its current and future mitigation and recovery efforts, including its funding. Although this EIS is intended for BPA decisionmaking, the analysis may also be valuable for other regional entities that may adopt it as part of their own decisionmaking.

1.2.2 BPA's Purposes

BPA has an obligation to fulfill its NEPA requirements for understanding the environmental consequences of its actions (funding and implementing any Policy Direction) before decisions are made and actions are taken. NEPA compliance will also allow BPA to:

- avoid delays in taking effective action, and
- provide an opportunity for public involvement for interested parties.

There are also some specific purposes BPA must consider. BPA will use the purposes listed below as "yardsticks" to compare how well the alternative Policy Directions meet the agency's need. These purposes are:

- **facilitate** implementation of a regional unified planning approach for fish and wildlife mitigation and recovery efforts that will improve:
 - coordination,
 - efficiency, and
 - consistency;
- **fulfill** statutory, legal obligations under the Regional Act, especially BPA's obligations to:
 - protect, mitigate, and enhance fish and wildlife;
 - provide equitable treatment for fish and wildlife with the other purposes of the FCRPS; and
 - provide a reliable, adequate, efficient, and economical power supply for the Pacific Northwest;
- **fulfill** the Administration's Fish and Wildlife Funding Principles (see Appendix A) such that BPA:
 - meets all of its fish and wildlife obligations, once established;
 - takes into account the full range of potential fish and wildlife costs;

- demonstrates a high probability of Treasury repayment;⁸
- minimizes rate effects on power and transmission customers;
- adopts rates and contracts that are easy to implement; and
- adopts a flexible fish and wildlife strategy;
- **fulfill** obligations under other applicable laws, including:
 - Federal treaty and trust responsibilities with regional tribes,
 - the ESA,
 - the CWA, and
 - the National Historic Preservation Act (NHPA); and
- **promote** predictable and stable fish and wildlife costs and competitive rates, enhancing BPA's ability to provide funding for public benefits and remain competitive in the electric utility marketplace.

These are purposes that **BPA** must consider before deciding to take action under this EIS. Other entities in the Region may use this document, with different purposes in mind. These entities will need to consider their own purposes before making decisions regarding their fish and wildlife mitigation and recovery efforts.

1.3 BACKGROUND

1.3.1 Major Participants⁹

BPA is just one of many interests in the Region seeking an effective and balanced means to halt species decline and strengthen the overall health of the human environment in the Pacific Northwest. The major participants involved in the ongoing effort to reach an agreement on a unified planning approach are identified in Figure 1-2 and described below:

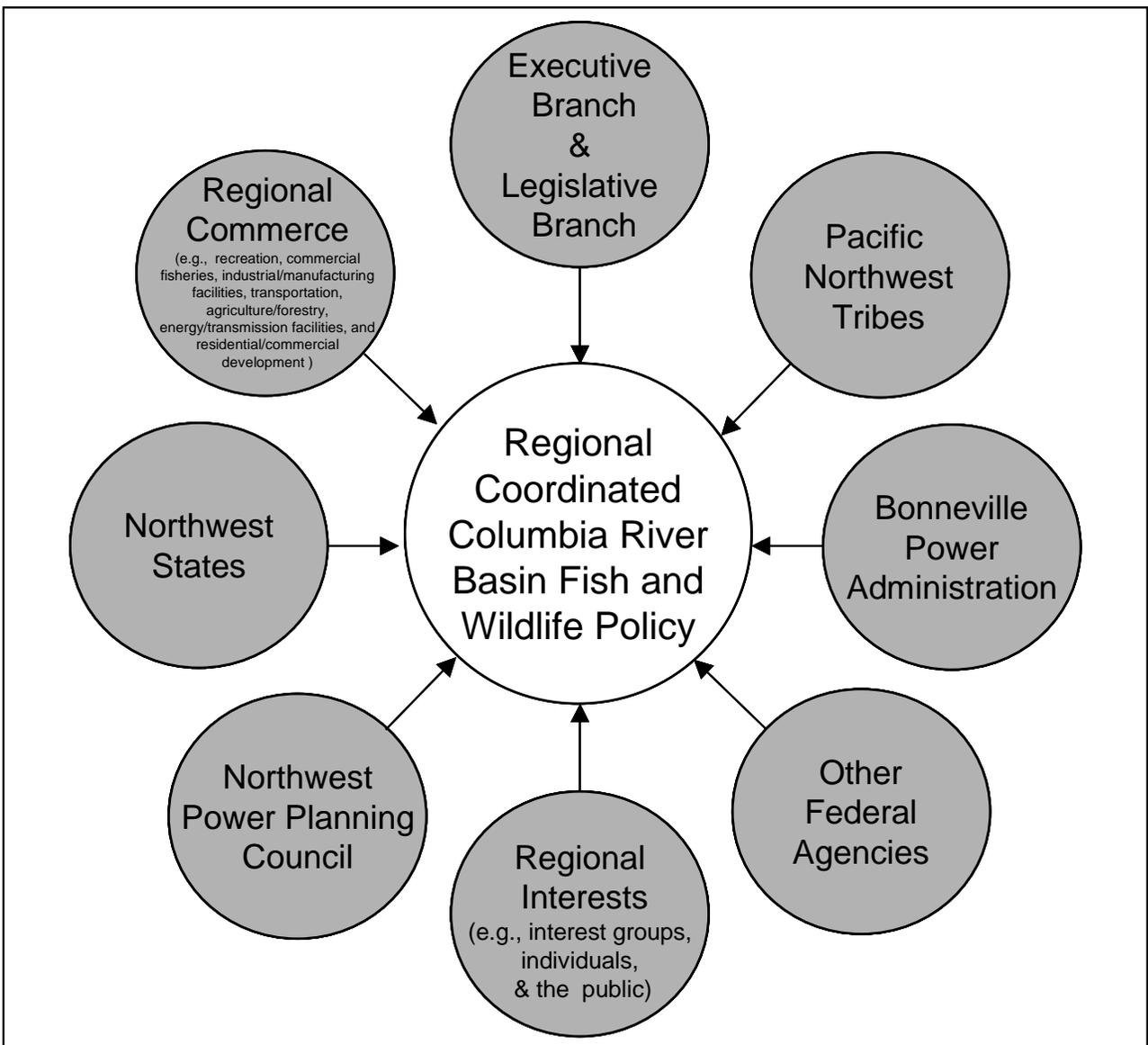
- **The Executive Branch (President and Executive Offices) and Legislative Branch (Congress)** have an interest because there is a potential for change in the natural resources funding and because legislation may be required to implement certain Policy Directions.
- **Regional tribes** have express legal status via treaties and other Federal laws, as well as economic, cultural, and religious interests, in any plan that may bear upon the future of fish and wildlife in the Region.

⁸ Treasury repayment is a payment BPA makes annually to repay 1) with interest, monies BPA has borrowed from the U.S. Treasury and 2) appropriations to the Corps and Bureau for the share of capital construction allocated to the power purpose of the hydrosystem.

⁹ Several groups have come into existence for specific purposes, including to help in the regional decisionmaking process. These groups were then disbanded when their specific work was done or no longer needed. Examples: the Columbia River Basin Forum, the Framework.

- **BPA and other Federal agencies** have direct or indirect responsibilities in fish and wildlife recovery and mitigation efforts as defined by various Federal statutes and regulations (see Appendix B, Mission Statements and Statutory Table).
- **The Council** was created by the Regional Act. It is made up of representatives from the four Northwest states. The Council develops and recommends measures for BPA to fund. These measures are intended to mitigate for the effects of the FCRPS on fish and wildlife.
- **Individual States and Local Governments** are also important participants. The four Northwest states are represented through the Council. In addition, the

Figure 1-2: The Major Participants in Regional Columbia River Political Forum



Governors of Idaho, Montana, Oregon, and Washington have prepared a joint statement outlining their preferred strategy for recovery efforts:

"Recommendations for the Protection and Restoration of Fish in the Columbia River Basin."¹⁰ The states enforce the CWA, in accordance with Environmental Protection Agency (EPA) guidelines. Local governments manage municipal water and waste and are involved in community-based projects such as watershed councils.

- **Regional commerce** includes people, businesses, and organizations (representing recreation, commercial fisheries, industrial/manufacturing facilities, transportation, agriculture/forestry, energy/transmission facilities, and residential/commercial development) that depend on the resources of the Region for their livelihood.
- **Regional interests** include the many citizens and groups with other direct or indirect concerns about the impacts, costs, strategies, or specific projects that may be involved in any plan for mitigation and recovery of fish and wildlife populations.

1.3.2 Scope and Related Processes

To improve the health of fish and wildlife and to find a way to use limited funds most efficiently, the participants listed above (and others throughout the Region) have begun and in some cases completed several related and wide-ranging processes with differing scopes (e.g., policy directions, geographic areas, and particular species).

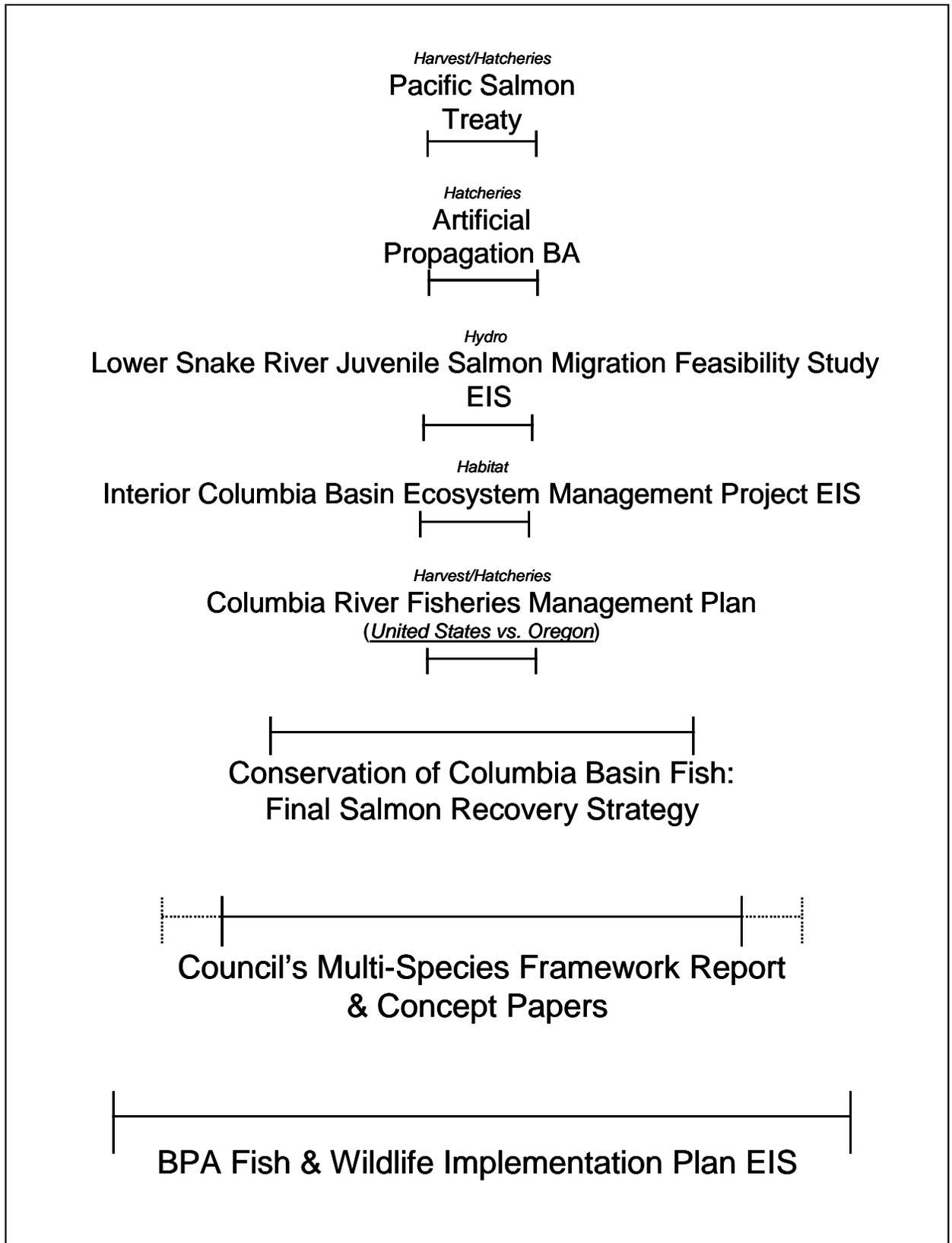
Several of these related processes and the associated documents are listed below. The listing includes a description of the special mandates of each responsible participant; in some cases, the mandates represent current policy regarding human effects on fish and wildlife. Figure 1-3 shows the scope of some of the different processes and documents.

- **Individual Processes:** Figure 1-3 shows examples of several individual processes that were intended to address a variety of fish and wildlife mitigation and recovery issues. Any one of these processes—hatchery propagation of fish, habitat restoration and improvement, manipulation of the flow in the rivers, management of Federal lands, breaching dams, and harvest controls—may help a particular aspect of the overall policy need; however, each falls short of offering a coordinated, comprehensive effort to address all the issues.
- **Federal Caucus and the Conservation of Columbia Basin Fish: Building a Conceptual Recovery Plan (Conceptual Plan) and Conservation of Columbia Basin Fish: Final Basinwide Salmon Recovery Strategy (Basinwide Strategy):**¹¹ This process and documentation, a product of nine Federal agencies known as the Federal Caucus, focuses on four areas affecting the life cycle of

¹⁰ Governors, Pacific Northwest States 2000.

¹¹ Federal Caucus 1999b and 2000b. These two documents were formerly known as the "All-H Plan"; they are the draft and final versions of the same study.

Figure 1-3: Examples of Breadth of Scope



anadromous fish: hatcheries, harvest, habitat, and the hydrosystem. The Basinwide Strategy describes the comprehensive changes that are assumed to be needed to recover Columbia River Basin fish. This document outlines the strategies and specific actions that Federal agencies operating within the Columbia River Basin should take to prevent extinction and foster recovery by improving survival across all life stages of ESA-listed anadromous-fish evolutionarily significant units (ESUs). It also functions as a blueprint to guide Federal actions and interactions with state and local governments and tribes as they take steps to comply with the ESA while exercising their authorities. BPA expects that recovery planning for listed anadromous fish will likely proceed along the lines discussed in the Basinwide Strategy Paper.

The Basinwide Strategy is incorporated into NMFS and USFWS recommendations through the BiOps for actions that affect Columbia River Basin ESA-listed anadromous and resident fish.

- **NMFS and USFWS Biological Opinions (BiOps):**¹² These agencies prepare Biological Opinions, as required by the ESA, for species under their respective authorities. BiOps describe the respective Federal agency's determination as to whether proposed actions will jeopardize species listed as threatened or endangered. BiOps prepared for the FCRPS provide operating parameters for the Action Agencies—the U.S. Army Corps of Engineers (Corps), the Bureau of Reclamation (Bureau), and BPA. BiOps are also prepared on other actions affecting Columbia Basin fish and wildlife.
- **Recovery Planning:**¹³ NMFS plans the recovery process for salmon and steelhead. The USFWS has responsibility for freshwater fish and terrestrial species. The recovery planning process includes the following:
 - (1) forming Technical Recovery teams to identify the de-listing criteria and recovery goals for an ESU, and
 - (2) developing Recovery Plans that describe actions needed to achieve the recovery goals and de-listing criteria.

Other Federal agencies, states, tribes, and stakeholders cooperate with NMFS, so that the many interests and ongoing recovery processes at all levels can be recognized. As NMFS moves forward to develop Recovery Plans using the technical information, the agency will rely on those cooperating sources to complete the information. Subbasin plans will be "aggregated" to ensure that the recovery of the entire ESU is provided for.

- **1- and 5-Year Implementation Plans:** The USFWS and NMFS BiOps require the Action Agencies to develop, annually, 1- and 5-year implementation plans to implement specific measures in hydro, habitat, hatcheries, harvest, research, monitoring, and evaluation needed to meet and evaluate the relevant performance standards. The 5-year implementation plans provide the conceptual foundation

¹² NMFS 1995, 1998 a and b, 1999c and d, 2000b; USDOJ/USFWS 1998b and 2000.

¹³ Federal Caucus 2000b.

and the management framework for coordinating actions to further recovery efforts over a 5-year period. One-year implementation plans summarize specific measures and provide detail on the *who, how, what, where, and when*. The Action Agencies issued the first draft 5-Year (2002–2006) Implementation Plan in July 2001¹⁴ and a final 2002 1-Year Implementation Plan in November 2001.

- **The Council's 2000 Columbia River Basin Fish and Wildlife Program:**¹⁵ The Council's Fish and Wildlife Program is the largest effort in the nation to recover, rebuild, and mitigate impacts on fish and wildlife. The 2000 (fifth) revision of the Program expresses goals and objectives for the entire Columbia River Basin, based on a scientific foundation of ecological principles. In the future, the Program will be implemented through both locally developed plans for the 58 subbasins of the Columbia River and a plan for the mainstem. Fish and wildlife projects proposed for BPA funding to implement the Council's Fish and Wildlife Program will originate from these subbasin plans. While those plans are being developed, the Council has provided for ongoing project review and for funding by BPA. The Council is proposing amendments to the mainstem plan for hydro operations that will improve conditions for resident fish and increase power generation.¹⁶
- **The Council's Multi-Species Framework Report:**¹⁷ In November 1998, to develop a framework for its Fish and Wildlife Program, the Council initiated the Multi-Species Framework Project—a more balanced, comprehensive approach to fish and wildlife mitigation. The Framework Project was managed by a state/Federal/tribal committee and administered by the Council. The Framework was tasked with addressing fish and wildlife recovery and mitigation for multiple species (not just ESA-listed species), exploring alternative long-term visions for the river, and preparing a report on the process.

Twenty-eight Concept Papers were submitted by interested parties, and over 100 fish and wildlife actions were proposed. The Council developed seven Framework alternatives, incorporating those alternative long-term visions (See Appendix D). A state-of-the-art analytical system, Ecosystem Diagnosis and Treatment (EDT), was used to address the biological benefits of each alternative; a separate Human Effects Analysis was used to address the economic and social impacts and benefits of the alternatives. This process, which was completed in late 2000, was used to inform the Council's adoption of its 2000 Fish and Wildlife Program. The Framework Report was released in February 2002.

- **Fish and Wildlife Funding Principles:** In September 1998, then-Vice-President Gore announced principles to help shape how BPA sets its power marketing rates, and to ensure that BPA could meet all of its mitigation and recovery effort

¹⁴ U.S. Department of Interior (USDOI), Corps, and BPA 2001a and 2001b.

¹⁵ Council 2000d.

¹⁶ Council 2002a.

¹⁷ Marcot, B. G., et al. 2002.

responsibilities, while simultaneously meeting its marketing and Treasury repayment responsibilities.¹⁸

- **The Council's 2001 Report on Bonneville Fish and Wildlife Expenditures:**¹⁹ In response to a request from the governors of Oregon, Washington, Idaho, and Montana, the Council has provided an accounting and brief assessment of BPA's fish and wildlife program implementation expenditures. The *Inaugural Annual Report of the Columbia Basin Fish and Wildlife Program, 1978-1999* found that, since 1978, BPA's costs have totaled \$3.48 billion. Of that total, 76% has been spent on anadromous fish. For BPA's efforts, the Region has seen a dramatic increase in in-river juvenile salmonid survival, increases in some resident fish populations, and mitigation for over 38% of the wildlife habitat inundated by the dams and reservoirs.
- ***U.S. v. Oregon:*** In 1968, the Columbia River treaty tribes and the United States brought this case against the state of Oregon, and later against the states of Washington and Idaho. It continues today, with jurisdiction residing in the Federal District Court of Oregon. In this landmark case, Judge Robert Belloni ruled that state management practices failed to meet the tribes' treaty-secured fishing rights, and that the tribes were entitled to take "a fair and equitable share" of the harvestable portion of the runs. Judge Belloni further ruled that the state can regulate the Indian fisheries only for purposes of conservation, and that those regulations cannot "discriminate against the Indians." Ultimately, the tribes won recognition of their right to an even split of the harvestable fish between treaty and non-treaty fisheries. They also won acceptance as fisheries co-managers. The 1988 Columbia River Fish Management Plan resulted from work under *U.S. v. Oregon*. The plan addressed issues such as the allocation of state and tribal harvests, fishing seasons, hatchery production, hatchery locations, and disposition of surplus returning adult salmonids of hatchery origins. The last plan expired in 1998 and has not yet been renegotiated. Judge Garr King (U.S. District Court of Oregon) now oversees the case and has continuing jurisdiction over it.

These many processes may result in the adoption of any one of many Policy Directions. Further, the selected policy may change, as technical issues are clarified or resolved. Therefore, the scope for BPA's EIS must be broad enough to encompass any potential Policy Directions under consideration.

1.3.3 Incorporation by Reference of Supporting Federal Documents

Throughout the last decade, Federal agencies in the Region have developed and continue to prepare a number of plans and programs addressing fish and wildlife mitigation and recovery actions. They have also issued a series of EISs designed to evaluate alternatives and implement selected actions. The environmental documents described below have

¹⁸ BPA is authorized to borrow money from the U.S. Treasury to build facilities needed to carry out its mission. Because BPA is self-financing, these monies must be repaid. BPA is committed by law to meet its repayment responsibilities as well as its responsibilities to the environment.

¹⁹ Council 2001.

been produced either by the participants listed in Section 1.3.1 or in the processes discussed above. All of these documents have been used as resources in the preparation of this FWIP EIS and are incorporated here by reference.

Resource Programs Final Environmental Impact Statement (DOE/EIS-0162, February 1993). This programmatic EIS evaluates the consequences of alternatives for energy resource development and operation and BPA energy resource acquisition (USDOE/BPA, 1993).

Final Supplemental Environmental Impact Statement on Management of Habitat for Late-Successional and Old-Growth Forest Related Species within the Range of the Northern Spotted Owl (U.S. Forest Service and Bureau of Land Management, February 1994). This EIS evaluates alternative management direction strategies for balancing forest habitat and forest products from forest ecosystems (USDOE/BPA, 1994).

Business Plan Final Environmental Impact Statement (DOE/EIS-0183, June 1995). BPA prepared this EIS in response to the need for a sound policy to guide its business direction (including power marketing, rates, and administration of fish and wildlife activities) under changing market conditions (USDOE/BPA, 1995).

Columbia River System Operation Review Final Environmental Impact Statement (DOE/EIS-0170, November 1995). This EIS evaluates a range of system operating strategies for the multiple uses of the FCRPS (USDOE/BPA, Corps, and BOR, 1995).

Delivery of the Canadian Entitlement Final Environmental Impact Statement (DOE/EIS-0197, January 1996). This EIS was prepared by the United States Entity (designated by the Columbia River Treaty between the United States and Canada as the BPA Administrator and the Corps' Division Engineer, North Pacific Division) for information on downstream power benefits. It is important to note that Executive Order 12114 does not require, but allows examination of impacts outside of the United States.²⁰

Impacts of Artificial Salmon and Steelhead Production Strategies in the Columbia River Basin Draft Programmatic Environmental Impact Statement (Columbia River Basin Fish and Wildlife Authority for Federal Agencies, December 1996). This document was prepared to evaluate alternative artificial production strategies for anadromous fish in the Columbia River Basin and the effects of hatchery-produced fish on natural populations of salmon and steelhead (CBFWA, 1996).

Wildlife Mitigation Program Final Environmental Impact Statement (DOE/EIS-0246, March 1997). This EIS is used to standardize the planning and implementation

²⁰ USDOE/BPA 1996a.

of BPA-funded projects for mitigating loss of wildlife habitat caused by the FCRPS (USDOE/BPA, 1997c).

Watershed Management Program Final Environmental Impact Statement (DOE/EIS-0265, July 1997). The analyses in this EIS were used to standardize the planning and implementation of individual watershed management programs and projects funded by BPA as mitigation for the loss of resident and anadromous fish habitat caused by the FCRPS (USDOE/BPA, 1997b).

Transmission System Vegetation Management Program Environmental Impact Statement (DOE/EIS-0285, May 2000). This BPA EIS assesses the uses and resource effects of different combinations of manual, mechanical, biological, and herbicide methods of managing vegetation on BPA rights-of-way, as well as mitigation measures for those effects (USDOE/BPA, 2000a).

Interior Columbia Basin Ecosystem Management Project Final Environmental Impact Statement (U.S. Forest Service and Bureau of Land Management, December 2000). This stand-alone EIS analyzes three alternatives for the management of public lands in the interior Columbia River Basin. It supplements the two Draft Interior Columbia Basin Ecosystem Management Project EISs and reflects the 83,000 comments received on those documents (USDA/USFS and USDO/BLM, 2000). A Final EIS Proposed Decision, also released in December of 2000, identified the preferred alternative (USDA/USFS and USDO/BLM, 2000). In February 2003, The State Directors and Regional Foresters elected not to prepare a Record of Decision and instead have chosen to complete the Project through use of "The Interior Columbia Basin Strategy."

Lower Snake River Juvenile Salmon Migration Feasibility Study Final Environmental Impact Statement (U.S. Army Corps of Engineers, February 2002). This EIS assesses the effects on juvenile salmon migration of alternative hydro system configurations and operations at the four lower Snake dams (Corps, 2002). A preferred alternative, which does not include dam breaching, was identified in the EIS. In September of 2002, the Corps released its Final Record of Decision supporting the Preferred Alternative.

Upper Columbia Alternative Flood Control and Fish Operations Interim Implementation. Libby and Hungry Horse Dams Final Environmental Assessment. (U.S. Army Corps of Engineers, December 2002). This EA evaluates the impacts of interim implementation of variable discharge (or VARQ, with Q representing engineering shorthand for discharge) flood control (FC) operations at Libby and Hungry Horse Dams and for the flow augmentation in the Kootenai, Flathead, and Columbia Rivers that such alternative flood control would facilitate, prior to the completion of an environmental impact statement (EIS). Appendix G contains a Finding of No Significant Impact.

Voluntary Environmental Assessment, FONSI 02-02. Interim Operation of the VARQ Flood Control Plan at Hungry Horse Dam (USDOI/Bureau of Reclamation, March 2002). As in the previous Corps EA above, this is the Bureau of Reclamation's EA for an alternative flood control strategy, VARQ, at Libby and Hungry Horse Dams. The Bureau also prepared a Finding of No Significant Impact.

Figure 1-4 shows the major elements that have been used from the documents above to help in the environmental analysis in this EIS.

1.3.4 Policy by Unified Planning or by Uncoordinated Agency Action

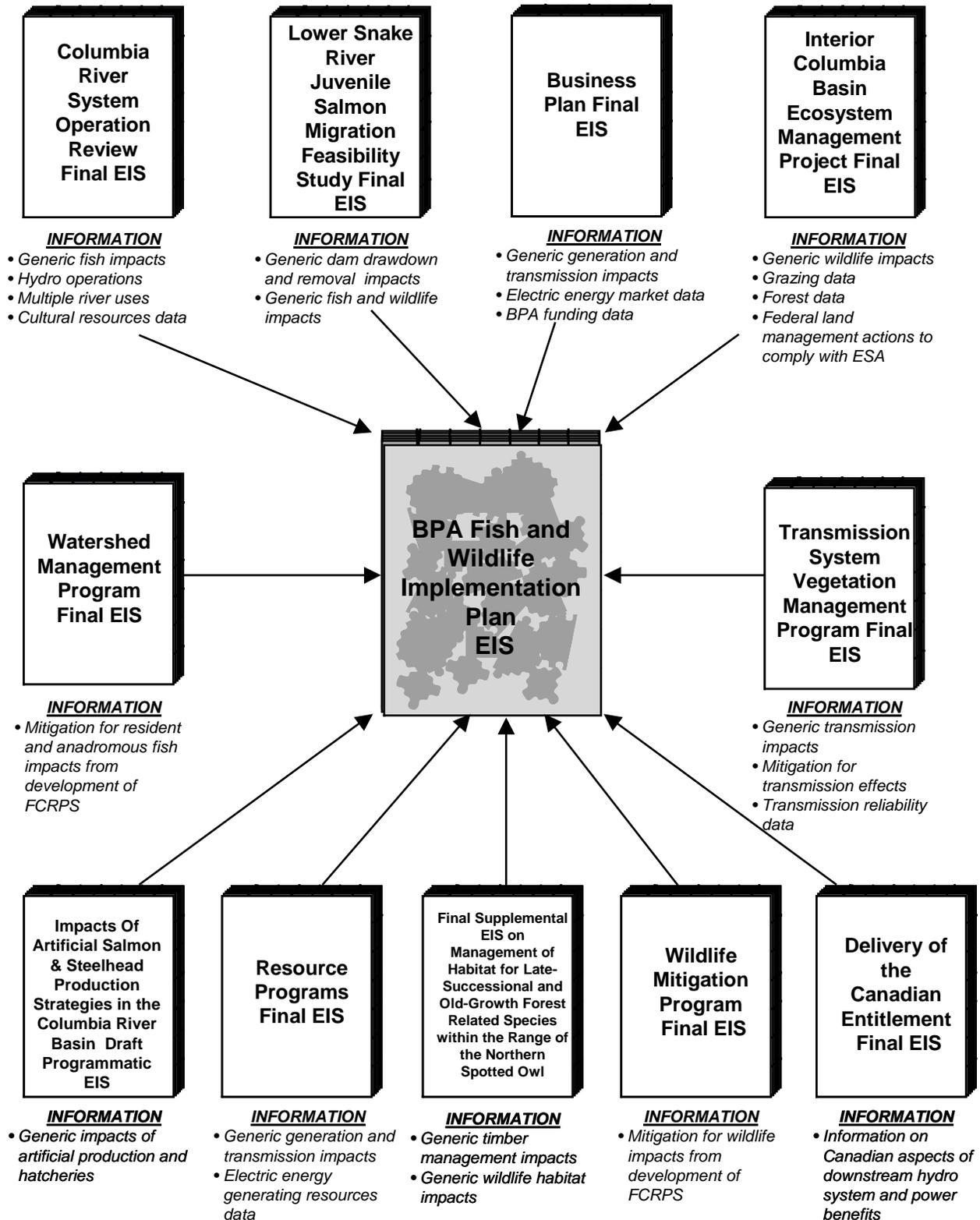
The discussions above have outlined what has been taking place in the way of policy actions that affect (positively or negatively) the fish and wildlife resources of the Pacific Northwest. Regional policy regarding fish and wildlife efforts has developed through both deliberate action and by failure to choose (by default or inaction) (see Figure 1-5):

- Initially, actions to expand the electric power system were taken, and the policies underlying those actions developed, without a comprehensive evaluation of the long-term effects on fish and wildlife. (Default Solution.)
- In 1980, Congress passed the Regional Act in part to give fish and wildlife equitable treatment with power production and other river uses (policy by *active decision*). This legislation was enacted to counter the uncoordinated, and sometimes nonexistent, nature of fish and wildlife mitigation efforts. (Legislation Solution.)
- In 1991, NMFS declared Snake River sockeye an endangered species and, in 1992, ruled that the spring/summer and fall runs of Snake River chinook were threatened. In 1994, NMFS reclassified the Snake River chinook stocks as endangered. These rulings required the Federal operating agencies to consult with NMFS on annual river-operating plans. (Consensus Solution.)
- Recently, a *technical/scientific exercise* has been underway to find "the solution." However, science in this area is not yet sufficiently refined to resolve the many technical differences of *opinion* on reaching recovery status; in fact, it may never be sufficiently precise to meet everyone's satisfaction and to determine the sequence of steps to be taken. (Science Solution.)

Although science cannot yet point out a clear path, the Region is still faced with the need to continuously define and redefine a policy for fish and wildlife. BPA, also, needs to plan how to wisely spend ratepayer funds it commits to address fish and wildlife mitigation and recovery efforts, and how to operate effectively and more efficiently under either of two conditions:

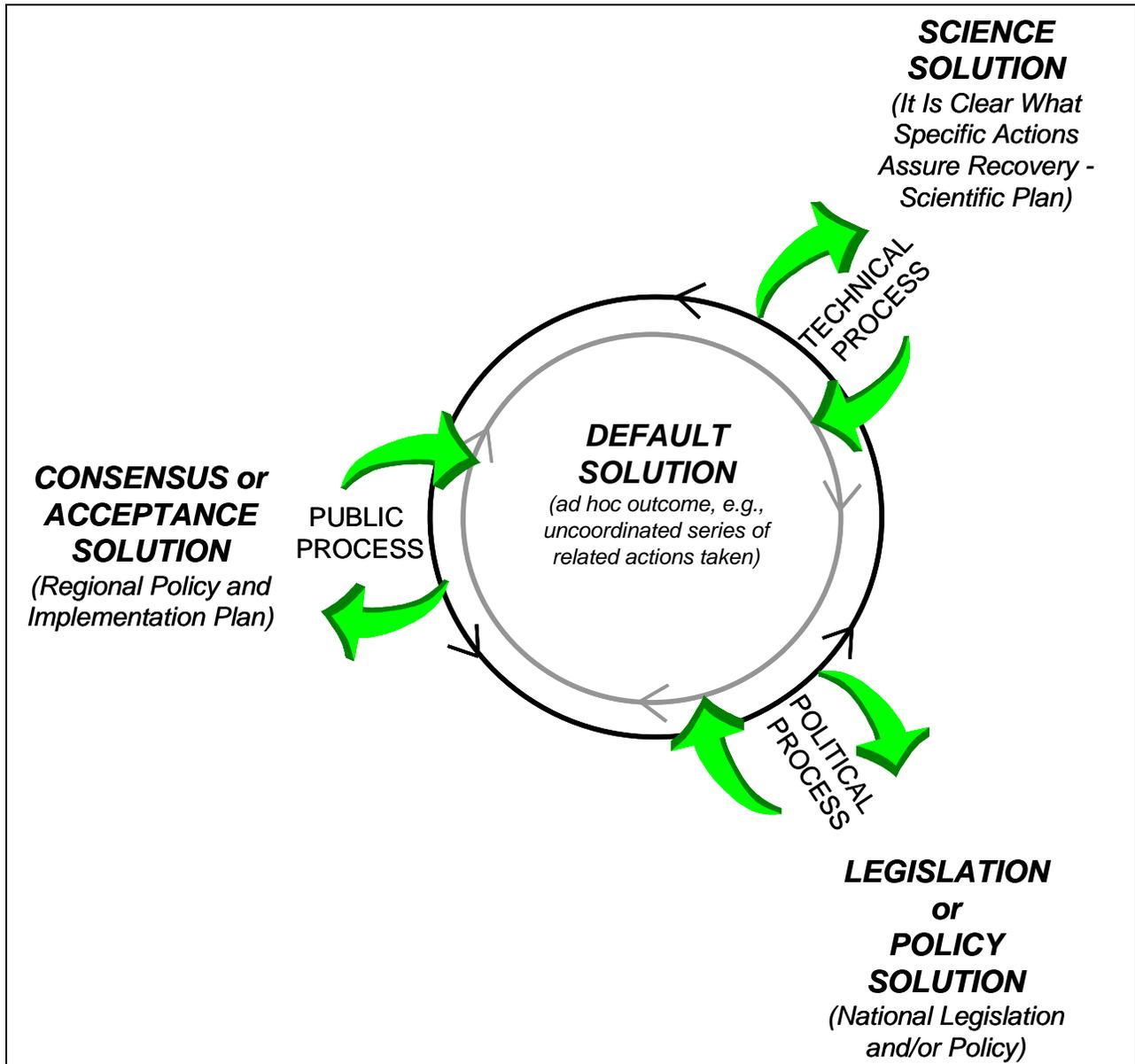
- a policy developed by a regionally unified planning effort (and subject to public input and review), or
- a default policy emerging through separately developed and executed individual agency actions: the policy path that defines much of the Region's past approach.

Figure 1-4: Incorporation by Reference*



* The Corps' Upper Columbia Alternative Flood Control and Fish Operations Interim Implementation EA/FONSI and the Bureau's Voluntary Environmental Assessment, FONSI 02-02 are not listed with the above EISs but information regarding flood control operations was used from these documents in this EIS.

Figure 1-5: Policy Process Cycle



1.4 DECISIONMAKING PROCESS

The analysis provided here, in a formal, policy-level process and environmental document, will offer the public an opportunity to assess, participate in, and influence the selection of a regional Policy Direction alternative for fish and wildlife mitigation and recovery efforts, along with the regional decisionmakers.

1.4.1 Decision and Implementation through Tiering

By undertaking this EIS as a complement to the other processes, BPA completes a comprehensive look at those regionwide processes. This EIS will also provide a springboard for the Administrator, as well as other decisionmakers, to fund and implement actions consistent with the ultimate Policy Direction selected to support the regional fish and wildlife mitigation and recovery effort (whether by unified planning or by default), without further delay. This ability to "tier" decisions is an extremely valuable tool, especially when time is of the essence. Figure 1-6 shows tiered decisionmaking pursuant to NEPA. Below are details on how this "tiering" works.

The Draft and Final EISs. First, the broadly scoped Draft EIS evaluated a wide range of alternative Policy Directions available to decisionmakers. The evaluation included trade-offs among resources and options to modify the basic Policy Direction(s), as well as environmental effects and ways to mitigate for effects. Publication of the Draft EIS signaled the beginning of a public review and comment process. Information from that process was used by BPA in preparing this Final EIS. In this EIS, the BPA Administrator, by using a unified planning approach, identifies a preferred Policy Direction that encompasses policy actions that have already been identified in other regional forums or processes, and by other decisionmakers. In addition, it reflects consideration of the BPA Purposes. See Chapter 3 for discussion of the preferred Policy Direction (PA 2002).

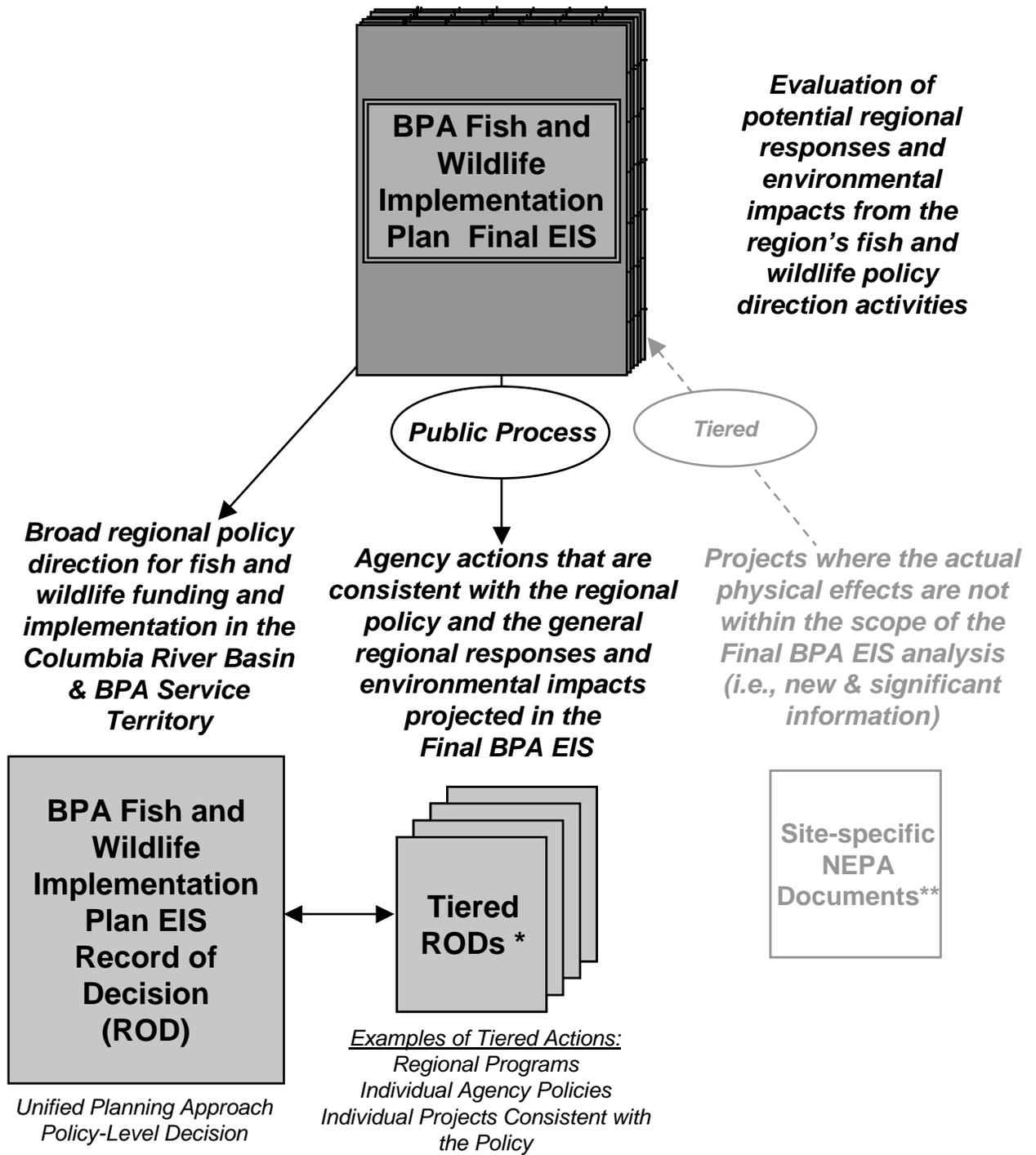
- **The Record of Decision (ROD) on Policy Direction.** BPA will next prepare a ROD that documents and explains the basis for the Administrator's Policy Direction selection. The decision will reflect the potential environmental consequences and mitigation, as well as public and agency comment.
- **Tiered RODs.** The BPA Administrator may then "tier" decisions about the implementation of actions consistent with the selected Policy Direction. BPA will continue to involve the public as it decides on different categories of specific implementation actions. In some cases, BPA may use a Supplement Analysis to determine whether any further NEPA documentation is needed to implement an action (see 10CFR1021, Section 1021.314(c)).

1.4.2 Potential Decisions to be Supported

The FWIP EIS will support actions that BPA determines are necessary to comply with its responsibilities, including the following:

- funding and implementing fish and wildlife mitigation and recovery efforts that support any selected Policy Direction;
- integrating those efforts into a unified plan;
- short- or long-term FCRPS recommendations in the NMFS and USFWS BiOps;
- funding of the Council's Fish and Wildlife Program;
- capital improvements at FCRPS projects;

Figure 1-6: NEPA Decision Process Integration



* If BPA determines that the final EIS adequately evaluates the environmental impacts of its future actions, then the preparation of additional or supplemental EISs would be unnecessary. Instead, BPA would prepare tiered RODs to cover the subsequent actions related to the policy ROD. In some cases, BPA may use a Supplemental Analysis to determine whether any further NEPA documentation is needed to implement an action. If other agencies or entities find the BPA EIS adequate to cover their actions, they could adopt the EIS and prepare RODs explaining their decisions and how the EIS analyzes the related environmental impacts.

** These documents could include categorical exclusions, environmental assessments, or environmental impact statements.

- other fish and wildlife mitigation and recovery efforts:
 - research,
 - monitoring and evaluation,
 - education, and
 - enforcement; and
- funding of cultural resource mitigation.

Other Federal agencies and regional entities may use this EIS to evaluate and support their own decisions regarding fish and wildlife mitigation and recovery efforts. Those agencies and entities may find this EIS useful because it looks at the effects of various fish and wildlife mitigation and recovery efforts throughout BPA's entire service territory, which makes up most of the Pacific Northwest Region and covers areas of concern to many. In addition, this EIS has a broad scope that covers essentially all of the substantive regional fish and wildlife issues.

To support their decisions regarding fish and wildlife recovery efforts, other Federal agencies and those who may need to comply with NEPA requirements could choose to adopt this EIS, consistent with CEQ Regulations For Implementing NEPA. Any such agency or entity wishing to do so would need to evaluate the EIS against its own purposes and needs. Any such agency would also have to determine whether to adopt all or part of this document to meet its own obligations under NEPA or to comply with similar laws and regulations applicable for environmental review.

- **As a frame to understanding the alternative Policy Direction choices, Chapter 2 provides an outline history of active/default policy decisions that have affected Pacific Northwest natural resources over time.**

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