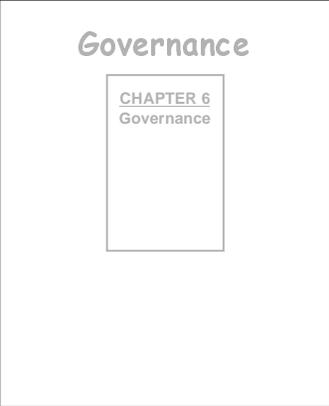
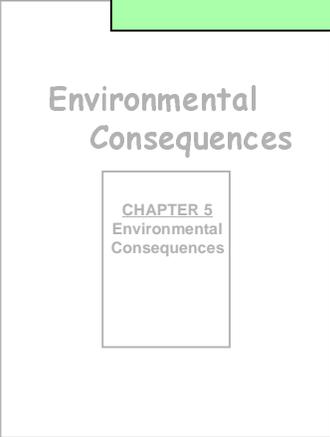


**Chapter 4**

*Factors Influencing  
Implementation*

*Responses to  
Change*

*Comparison of  
Criteria for  
Implementation  
Results, by Policy  
Direction*



## **CHAPTER 4 – IMPLEMENTATION AND RESPONSES TO CHANGE**

- 
- **Provides examples of factors** that can influence the direction of and the success in implementing each Policy Direction.
  - **Presents the options** available to assist implementation of the Policy Directions and strategies for accommodating future change.
- 

Once a Policy Direction that reflects the likely regional inclination has been selected, it will need to be implemented. Individuals, groups, or agencies will take appropriate implementing actions, such as those provided as sample implementation actions (Section 3A). Many natural, economic and social factors will strongly influence the ultimate success of these actions. If we have chosen well, fish and wildlife recovery will improve at an acceptable social and economic cost.

Even if we have chosen as well as we can, we may find, in monitoring results, that we need to change our actions, or the Policy Direction itself. Successful recovery may mean that the region needs to modify its management of the resources differently than under a rescue mode. On the other hand, recovery may not be as successful or as speedy as we wish, or the consequences for other resources may prove unacceptable. Research and development may result in new types of actions, or science may determine that other types of actions might better foster fish and wildlife recovery efforts. Federal or state officials and the actions they advocate may change, or the preferences of society may change. Regardless of the reason, eventually, the Policy Direction will likely need to be modified. This DEIS is designed to accommodate such change.

This chapter focuses on how each Policy Direction would be implemented in light of context, changing conditions and influencing factors, and how it could be modified to meet future needs.

### **4.1 FACTORS INFLUENCING IMPLEMENTATION**

Many factors can influence an implementing action (or even an entire Policy Direction). Some factors outside anyone's control—such as weather, ocean conditions, species-specific disease, and social or economic crises—can change the predicted effect of a particular course of action. New decisionmakers—from the U.S. President on down—affect implementation. The context of an action also influences its success and effects, and context changes over time. The method of implementation influences the success and effects of an action. Methods of implementation include incentives, regulation, property acquisition, or education.

BPA and other federal agencies may, through adaptive management, adjust FCRPS operations over time, as changing circumstances warrant. These circumstances may

involve water supply, economic outlook, power market conditions, fish and wildlife, water quality, cultural resources, or other project uses.

The existing NMFS 2000 BiOp recognized that water management actions may change due to unforeseeable power system, flood control, or other emergencies. Emergencies may include a power emergency—one based on insufficient power supply to meet demand in the Pacific Northwest. There may also be West Coast power shortages that threaten health and human safety and require an emergency response from BPA. For example, poor water conditions in the Columbia River basin, coupled with an extraordinary power market on the West Coast, are causing an unprecedented river management situation during 2001.

Any emergency actions are a last resort, and are not used in place of long-term investments—including fish and wildlife investments — necessary to allow full, uninterrupted implementation of the required reservoir operations while maintaining other project purposes, such as an adequate and reliable power system.

Such emergency operations will not alter the analysis in this DEIS because they could be taken under any of the Policy Directions, and the actions are to be of a relatively short duration—especially when considered in the context of this DEIS, which may have a life of 10 to 20 years. If the emergency actions do persist, they could signal the need to shift to a new Policy Direction. In that situation, BPA could prepare a supplement analysis or supplemental EIS and issue a new Record of Decision to change its policy and implementation plan as needed.

Table 4.1-1 shows some of the possible events that could affect any Policy Direction, or individual Policy Directions.

**Table 4.1-1. Summary of Key Factors Influencing Implementation of Policy Directions**

<b>CONDITIONS IN THE NATURAL ENVIRONMENT</b>
<ul style="list-style-type: none"> <li>▪ Natural disasters</li> </ul>
<ul style="list-style-type: none"> <li>▪ The relationships among fish and wildlife recovery, climatic change, normal climatic variations, and ocean conditions (these relationships are not well understood, but may affect the success of a Policy Direction, perhaps justifying a change in Policy Direction or, implementation actions)</li> </ul>
<ul style="list-style-type: none"> <li>▪ Species extinction</li> </ul>
<b>FUNDING AND FISH AND WILDLIFE POLICY</b>
<ul style="list-style-type: none"> <li>▪ Changes in policy-makers</li> </ul>
<ul style="list-style-type: none"> <li>▪ Intervention by the Legislative, Executive, or Judicial branches, resulting in a loss of regional control over fish and wildlife recovery effort planning</li> </ul>
<ul style="list-style-type: none"> <li>▪ Increased reliance on federal taxpayers and the subsequent requirements attached to federal funding</li> </ul>
<ul style="list-style-type: none"> <li>▪ Additional listing or delisting of fish and wildlife species</li> </ul>
<ul style="list-style-type: none"> <li>▪ Lack of regional commitment, financial or otherwise, to a fish and wildlife recovery effort plan and subsequent Policy Direction</li> </ul>

<b>FUNDING AND FISH AND WILDLIFE POLICY (Con't)</b>
<ul style="list-style-type: none"> <li>▪ Lack of identified BPA results and mechanism for monitoring/achieving those results</li> </ul>
<ul style="list-style-type: none"> <li>▪ Other agencies' or regional decisions on fish and wildlife mitigation and recovery efforts that affect BPA's revenue stream or increase costs</li> </ul>
<ul style="list-style-type: none"> <li>▪ Changes in laws and regulations requiring additional expenditures on fish and wildlife mitigation or prolonging implementation</li> </ul>
<ul style="list-style-type: none"> <li>▪ Perceived success or failure of fish and wildlife recovery and mitigation actions</li> </ul>
<b>ELECTRICITY MARKETS AND REGULATION</b>
<ul style="list-style-type: none"> <li>▪ A significant change in market price (perhaps altering BPA's maximum sustainable revenue (MSR) and ability to pay fish and wildlife costs)</li> </ul>
<ul style="list-style-type: none"> <li>▪ Electricity deregulation</li> </ul>
<ul style="list-style-type: none"> <li>▪ Economic recession or dramatic change</li> </ul>
<b>FACTORS SPECIFIC TO POLICY DIRECTIONS</b>
<ul style="list-style-type: none"> <li>▪ Ineffective BPA cost controls</li> </ul>
<ul style="list-style-type: none"> <li>▪ The need for changes in law</li> </ul>
<ul style="list-style-type: none"> <li>▪ Inability to affect population growth and development patterns in the region</li> </ul>
<ul style="list-style-type: none"> <li>▪ Selection of implementation options (such as acquisition, leasing, positive incentives, regulation, education, and methods) and intensity of enforcement</li> </ul>
<ul style="list-style-type: none"> <li>▪ Monitoring programs and response to monitoring efforts</li> </ul>
<ul style="list-style-type: none"> <li>▪ Inability to enforce new regulations</li> </ul>
<ul style="list-style-type: none"> <li>▪ Inability to police whatever areas and activities are restricted to humans</li> </ul>
<ul style="list-style-type: none"> <li>▪ Inability to establish successful Basin-wide Strategy practices to achieve fish and wildlife results</li> </ul>
<ul style="list-style-type: none"> <li>▪ Lack of environmental constituent support for businesses using the river, which may undermine Policy Directions, or vice versa</li> </ul>

#### **4.1.1 Factors in the Natural Environment**

The natural environment will change in ways that cannot be predicted now. Natural disasters can influence the success of a Policy Direction. For instance, ocean conditions can change for better or worse, with consequent effects on anadromous species food sources, survival, and commercial fishing. Weather conditions and climate change can similarly affect human priorities. Wildfires, volcanic eruptions, or other natural events can destroy or alter habitat. Any of these, and more, can affect fish and wildlife recovery efforts directly (by affecting food, habitat, or reproductive success) or indirectly, as humans react to changes in the natural environment by revising their priorities and re-evaluating their commitments to one or more tenets of a Policy Direction.

#### **4.1.2 Factors in the Social and Economic Environment**

Social and economic factors influence the implementation and success of a chosen Policy Direction. Many implementation actions—especially, most habitat and harvest actions—will likely require human behavioral changes that cannot be simply mandated. Rather, actions may seek to modify behavior through incentives. Human behavior depends on the options selected, and environmental effects depend on the human behavior. Examples of incentives include subsidy, acquisition, leasing, education, and regulation.

Even regulation is not necessarily 100% effective; success depends on enforcement, penalties, and other variables.

Other social and economic factors involve feedback effects with the chosen Policy Direction or its results. For example, some or many regional parties may work to block or change the chosen Policy Direction or implementation actions. The Policy Direction may have broad effects on population, regional economies, or funding that affect its implementation. The success of actions in recovering species may affect decisions on listing of more species as threatened or endangered.

Other social and economic factors that influence effects are themselves largely independent of fish and wildlife recovery efforts. These factors can range from changes in the electric utility industry such as deregulation, the formation of a regional transmission organization (RTO), or electricity or other market fluctuations; to an economic recession that turns individuals' focus more closely to immediate personal economic survival.

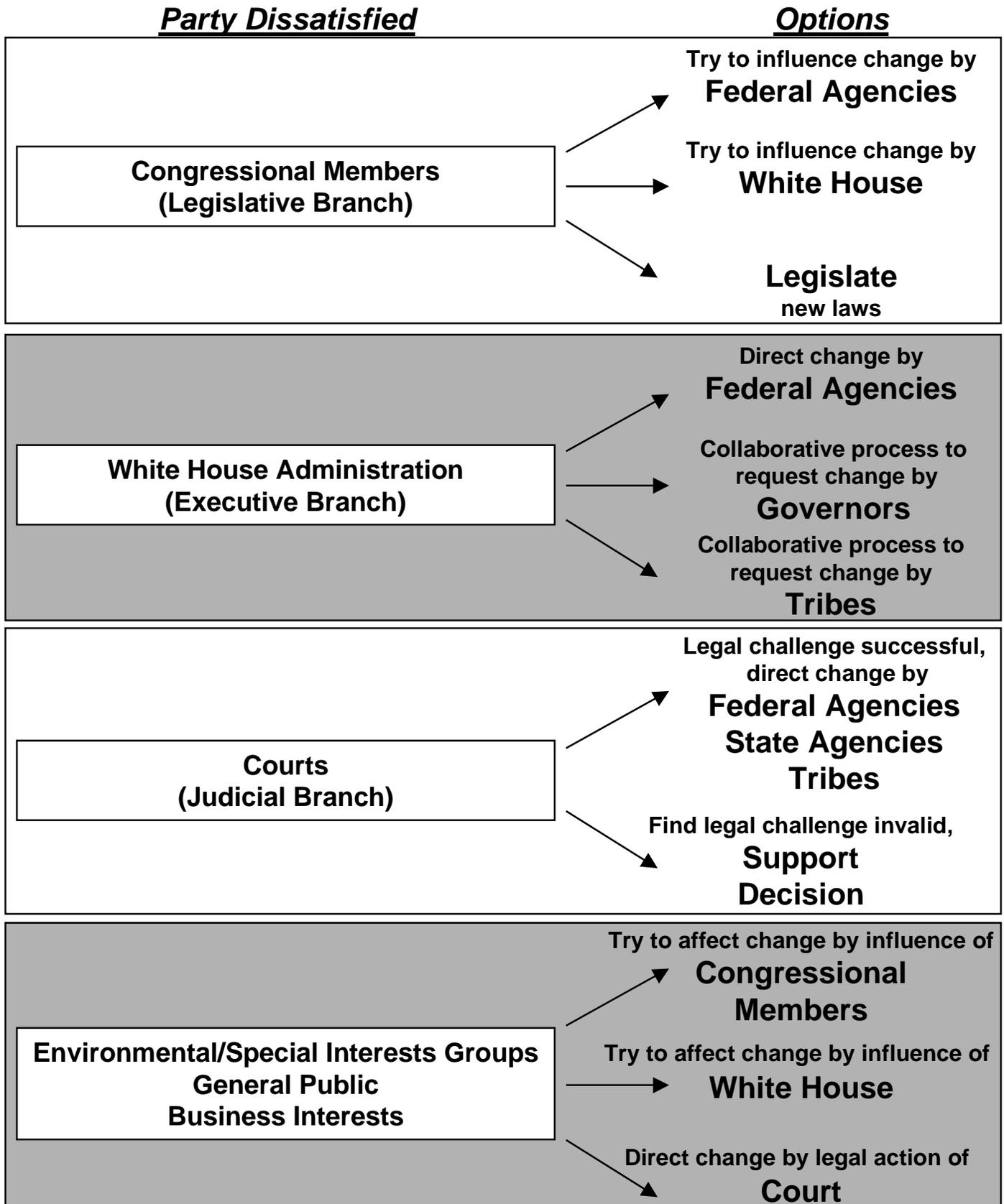
### **4.1.3 Factors in the Decisionmaking Process**

It is particularly important to understand how the interaction of public process, political intervention, and judicial review of the fish and wildlife mitigation and recovery plans may affect implementation of those plans. There are three major roles in this interaction.

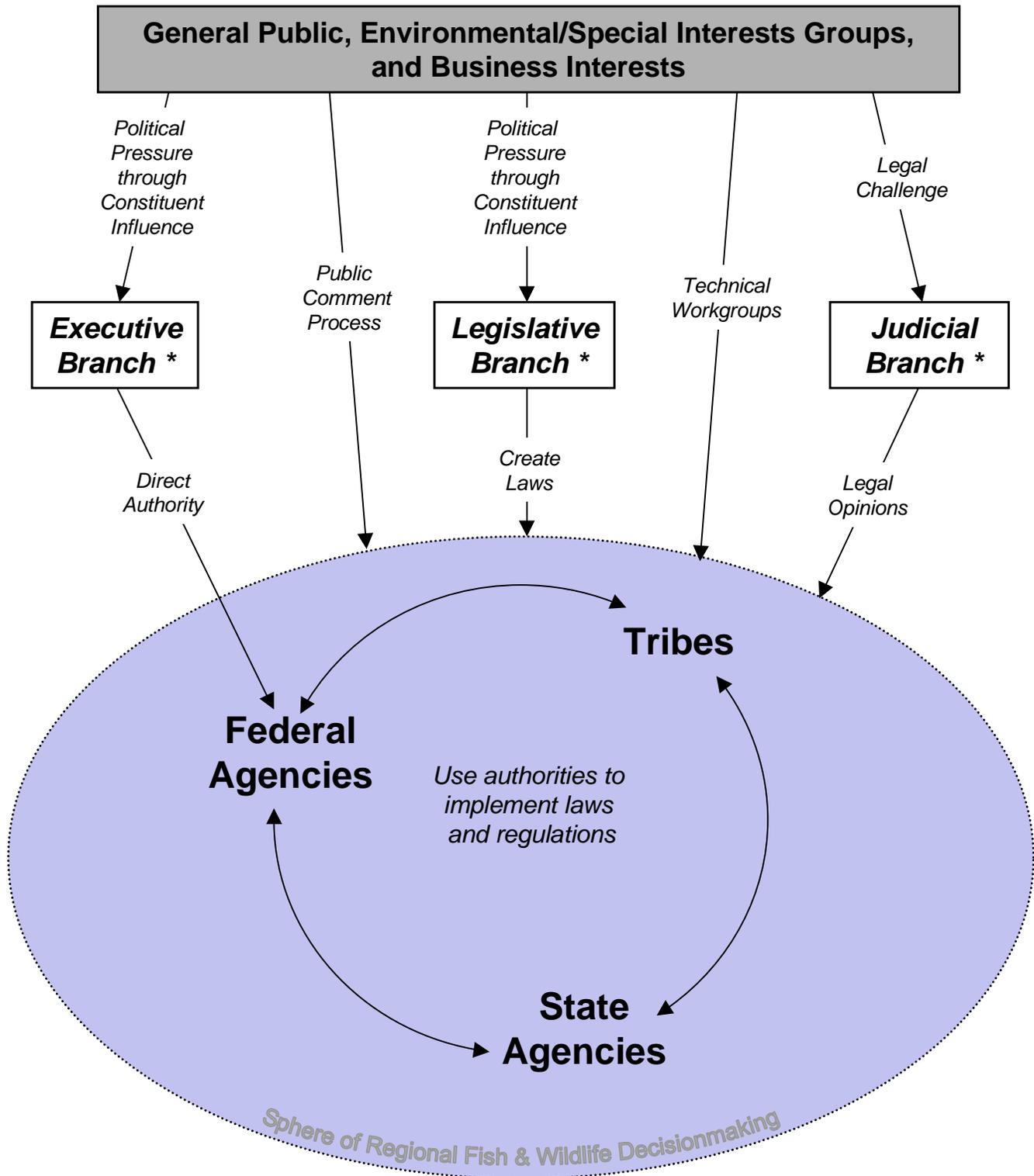
- **Decisionmaking.** The major public policy decisionmakers are the tribes, states, and federal agencies that manage and implement fish and wildlife policy. They make the key decisions, and bear the ultimate responsibility for implementing a regional fish and wildlife policy.
- **Influencing.** The general public—as an environmental or special interest group, a business group, or individual concerned citizens—may influence the decisionmaking process by voting, political influence, expressing opinions and/or by introducing information on technical/scientific developments that may bear on the decision. Effective public involvement is essential to sound decisionmaking. The public's effect varies, based on the conflict surrounding the particular policy issue. Where regional policy on fish and wildlife recovery efforts is concerned, public, scientific, and political discord is extremely high. Any individual or group dissatisfied with a process or a decision may seek direct help as described below.
- **Intervening.** A dissatisfied party may seek redress through the Executive, Legislative, or Judicial branches of the respective federal or state governments. These entities can directly affect the direction of a decision or its execution. See Figure 4-1 for a brief description of the different avenues of relief.

In Chapter 1, we suggested that public policy might evolve in several different ways: via technical input, political input, public input, and legal input, or by simple default due to inaction or delays in making formal policy. Figure 4-2 shows each of these influences in the development of a fish and wildlife recovery effort policy. The interrelationship among the regional decisionmakers, the public interest groups, and the various branches

Figure 4-1: Decisions by Regional Federal, State, or Tribal Policy Makers  
Possible Actions by Parties With Concerns



**Figure 4-2: The Pacific Northwest Region Decisionmaking Process Influences**



\* NOTE: The regional decisionmakers face influences from several different levels. A dissatisfied party may seek redress through:

- the **Executive Branch** - Federal: President and White House Administration; and States: Governors and their Administrations
- the **Legislative Branch** - Federal: US Congress; and States: Legislators
- the **Judicial Branch** - Federal: 9th Circuit & Supreme Courts; and States: District & Supreme Courts
- Tribes** have their own set of governing organizations (e.g., Tribal Councils, Tribal elders)

of federal, state, and tribal government is one of checks and balances in the development and implementation of public policy.

Consensus building does not always mean unanimity of thought. Parties rarely reach complete agreement on an issue as controversial as developing a fish and wildlife recovery effort policy. The advantage, however, of the decisionmaking process outlined in Chapter 3 and above is that even a lone dissenter has avenues of relief—through policy-makers, politicians, courts, or a combination of all three, he or she may act to persuade an entity with direct control over regional decisionmakers.

To reach a policy goal that will weather technical, legal, and political scrutiny, and to create a useful and long-lasting tool, we must make sure that any Policy Direction can be modified. The purpose of this DEIS is to identify, in advance, the potential environmental consequences of various Policy Directions, so that all interests can be better informed of the consequences of their actions, including modification.

## **4.2 RESPONSES TO CHANGE**

We know that change will occur—to the natural environment and to the social and economic environment. The current policy might reach its intended goal, or it might fall short in one or more critical aspects. We must leave a potential range of future implementing actions open to accommodate a reasonable range of possible future changes in the environment or in public policy. This DEIS is designed to accommodate such changes: selecting a particular Policy Direction or combination of Policy Directions now does not foreclose changing the policy in the future.

To respond to change, BPA will routinely revisit and review the effects of its decisions (see Figure 3-3) on implementation of the selected regional policy alternative and make modifications, as necessary. Three tools help to make this process possible: one tool (**response strategies**) that does not change the Policy Direction, and two (**mix and match options** after the initial decision, and **reserve options** for future modification) that do.

Some actions are more reversible than others. Policies may change, but not all actions and effects can be changed as readily. Extinction cannot be reversed. However, where natural populations were lost, new populations might be established from other stocks. Dam building may also be hard to reverse, because society becomes economically dependent on those dams. All else being equal, actions that can be reversed are preferable to actions that cannot be reversed.

### **4.2.1 Modifications that Do Not Change the Policy Direction: Response Strategies**

After the region has decided on a particular Policy Direction, it is likely that economic, political, or environmental changes will require corrective measures to maintain the selected course. "Response strategies" allow immediate corrections or improvements *without changing the overall Policy Direction in effect*. Response strategies are used to

implement the fish and wildlife recovery efforts and to mitigate unforeseen or uncertain events such as changing ocean conditions or natural disasters. They represent management options within the agency's jurisdiction and have been contemplated, implicitly or explicitly, and evaluated in advance, allowing for immediate implementation.

Such response strategies can be grouped into three categories: Management and Operating Agency Activities, BPA Funding of Response Strategies, and Regional Response Strategies.

#### **4.2.1.1 Management and Operating Agency Activities**

As part of the normal course of operations, agencies must prepare for reasonably foreseeable events. When such an event occurs, a pre-designed and pre-assessed plan can be implemented in a timely manner. Such advance preparation is usually the product of response strategies designed by both management and operating agencies.

**Management responses** associated with fish and wildlife mitigation and recovery efforts are developed through laws or regulations, public policy, or design of official plans. Such responses are often influenced by the White House or Congress, the general public, or specific interest groups representing a particular concern. These management responses do not directly interact with the natural environment.

**Operating responses**, on the other hand, are activities by the entities specifically authorized to carry out laws, regulations, policies or plans. Operating responses can include specific hydro operations, vegetation management, or building and constructing physical structures, for example.

Many federal and state entities, as well as tribal governments, are frequently engaged in both management and operating responses. Over the past several decades, a combination of agencies, courts, and other entities has shaped the development and management of the water, land and fish and wildlife of the Columbia River. The table below describes those entities with the most significant role in implementing management and operating responses.

**Table 4.2-1 Roles and Responsibilities**

ENTITY	GENERAL REGIONAL RESPONSIBILITY
<i>Agencies with Primary Management Responsibilities</i>	
<b>Executive Branch</b>	<b>Constitutional</b> – Manages the actions of the federal agencies, certain veto powers.
<b>Judicial Branch</b>	<b>Constitutional</b> – Determines whether actions are consistent with the U.S. Constitution, and federal and state laws and regulations
<b>Congress</b>	<b>Constitutional</b> – Promulgates and amends laws as necessary to represent constituency; makes appropriations to complement laws
<b>Tribes</b>	<b>Treaty</b> – Act as independent sovereigns within the United States, acting consistent with Treaties and applicable federal statutes
<b>Northwest Power Planning Council</b>	<b>Statutory</b> – Responsible for developing Regional Power Plan and Fish and Wildlife Plan under the Regional Act
<b>National Marine Fisheries Service</b>	<b>Statutory</b> – Pursuant to the ESA, produces biological opinions on jeopardy of anadromous fisheries, regulates commercial/tribal harvest
<b>Bonneville Power Administration (power marketing)</b>	<b>Statutory</b> – Markets and transmits electric power from federal dams and implementing actions under the Regional Act (e.g., funding fish and wildlife mitigation measures.) Provides low-cost power to the region
<b>US Fish and Wildlife Service</b>	<b>Statutory</b> – Pursuant to ESA, produces BiOps on plants, wildlife, & resident fish
<b>Environmental Protection Agency</b>	<b>Statutory</b> – Over sees CWA regulations and implementation, plus general environmental oversight through NEPA
<b>Federal Energy Regulatory Commission</b>	<b>Statutory</b> – Has regulatory authority over non-federal hydroelectric projects on the Columbia River and its tributaries
<i>Agencies with Primary Operating Responsibilities</i>	
<b>Bonneville Power Administration (transmission)</b>	<b>Statutory</b> – Constructs and maintains the high-voltage transmission line system throughout the Pacific Northwest. Provides low-cost primary transmission to electric utilities, public power suppliers, electric generators, and others needing wholesale transmission to the region
<b>Bureau of Land Management</b>	<b>Statutory</b> – Manages public forest and range lands
<b>US Forest Service</b>	<b>Statutory</b> – Manages National Forest System Lands
<b>US Army Corps of Engineers</b>	<b>Statutory</b> – Operates federal dams and locks for multiple uses – navigation, flood control, recreation, irrigation, power
<b>Bureau of Reclamation</b>	<b>Statutory</b> – Operates multiple purpose federal water projects for irrigation and flood control as well as power
<b>Bureau of Indian Affairs</b>	<b>Statutory</b> – Trustee for tribal/individual Indian land & resources held in trust
<b>State Fish and Wildlife Related Agencies</b>	<b>Statutory</b> – Separate and/or joint responsibility with the federal government for regulating fish and wildlife, air, land, and water issues within their particular state

**4.2.1.2 BPA Funding Response Strategies**

BPA will need certain funding response strategies consistent with each Policy Direction. If events outside BPA's control appear to impair its ability to reach the Policy Direction's desired results, BPA must act to try to maintain its funding to achieve the intent of that Policy Direction. This DEIS presumes that such changes or unexpected results can and will occur. This section describes possible BPA strategies that will enable BPA to respond promptly to these challenges without changing the intent of the Policy Direction. Typically, these corrective measures would consist of an action(s) that would not require additional environmental analysis or process. However, should BPA determine that extraordinary circumstances exist, additional analysis and documentation and public process would take place, possibly leading to Policy Direction changes as described in Section 4.2.2.

For example, if BPA's financial situation should change—say, a prolonged drought made it impossible for the agency to recover sufficient revenues to meet its obligations—BPA could take action to (1) increase revenues (raising rates or selling new products are two measures), or (2) decrease spending, or (3) transfer costs (e.g., by seeking cost-shares for programs or securing additional appropriations). A more detailed look at these options is available in the BPA Business Plan EIS.<sup>1</sup>

**Table 4.2-2: Potential BPA Funding Response Strategies**

<b>Increase Revenues</b>	<b>Decrease Spending</b>	<b>Transfer Costs</b>
Raise firm power rates	Eliminate power purchases	Seek 4(h)(10)(c) credit from fish & wildlife mitigation
Raise transmission rates to cover other power system costs	Reduce BPA spending on corporate overhead	Increase cost sharing for BPA programs
Increase unbundled products & services revenues	Reduce Washington Nuclear Plan (WNP)-1, -2, & -3 spending	Reallocate FBS costs & debt between power & non-power spending
Increase sales of new products & services	Reduce conservation incentive spending	Secure appropriations for BPA's costs
Implement a stranded investment charge	Reduce generation acquisition spending	Transfer program & financial responsibility
Increase seasonal storage	Reduce pollution prevention & abatement spending	
Optimize hydro operations for net revenues	Reduce fish & wildlife spending	
Increase extraregional sales revenues	Reduce transmission construction spending	
Increase joint venture revenues	Share ownership and spending in new facilities	

<sup>1</sup> USDOE/BPA (1995).

Increase Revenues	Decrease Spending	Transfer Costs
Sell assets	Reduce operations & maintenance spending	
	Shift from revenue to debt financing	
	Seek increased Treasury borrowing limits	
	Lower probability of making Treasury payments	

*Source: BPA Business Plan EIS, 1995*

### **4.2.1.3 Regional Response Strategies**

Similarly, other federal, state, or local agencies may wish to develop administrative or operational strategies specific to their needs so that they may respond quickly to unexpected events, and still maintain the integrity of the Policy Direction. Many of these response strategies would be consistent with existing environmental documentation. Other such response strategies would typically consist of those activities under the Categorical Exclusion<sup>2</sup> designations of the various agencies, which are the product of years of typical agency responses to change. Examples of such activities are noted below.

- *Planning Activities:* Such as archeological surveys or test excavations for cultural resources investigations consistent with the Policy Direction being followed.
- *Project Implementation Activities:* Such as classifying and certifying lands or fixing minor unsatisfactory environmental conditions consistent with the Policy Direction being followed.
- *Operations and Maintenance Activities:* Such as work (being done to implement the Policy Direction being followed) that is within existing disturbed environmental areas and where the level of use will not increase and environmental conditions are satisfactory.

### **4.2.2 Modifications that Change the Policy Direction**

The management, operating, and funding response strategies above are appropriate when relatively minor implementation adjustments need to be made to carry out an existing policy. Sometimes, however, the Policy Direction itself will require a change. This requires a more fundamental adjustment. The ability to adjust implementation to a change in Policy Direction is critical when time is a crucial factor in the recovery effort. For BPA, these adjustments are also critical to successfully competing in the electric utility marketplace.

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<sup>2</sup> "Section 1507 of the CEQ regulations directs federal agencies when establishing implementing procedures to identify those actions which experience has indicated will not have a significant environmental effect and to categorically exclude them from NEPA review." (Federal Register Vol. 48, No 146. Thursday, July 28, 1983, Rules and Regulations.) See also, 40 CFR §1507.3(b)(2)(ii).

#### **4.2.2.1 Mix and Match (Post-Selection)**

By using the "mix and match" approach outlined in Section 3.4, regional decisionmakers could revisit a Policy Direction after it has been implemented and make changes, as necessary. If a particular action or set of actions proves to be very successful, decisionmakers may want the flexibility to implement such actions on a broader scale. Conversely, if a particular action or set of actions were not producing the desired result, decisionmakers could substitute a more aggressive action or opt for a different strategy. By mixing and matching components of the Policy Directions, decisionmakers could make changes ranging from minor adjustments in one area or issue to creating a new Policy Direction from the actions identified in the Sample Implementation Actions. Because the mix and match approach is used to *modify a Policy Direction* (or adopt a new Policy Direction), regional discussion and public process would likely be necessary.

In using the "mix and match" approach to adjust a Policy Direction, one must keep in mind the cautions noted in Section 3.4.2: consistency, effectiveness, clarity, coordination, cause-and-effect relationships, and compatibility of changes. To review the cautions and the directions for mixing and matching alternative actions among Policy Directions, please see Appendix E.

#### **4.2.2.2 Reserve Options for Future Action**

Just as fish and wildlife policy in the Columbia Basin has evolved over time, so the chosen Policy Direction may evolve over time. Future decisionmakers and citizens may decide to revisit an entire Policy Direction. They might reconsider the underlying actions making up the implementation plan or they might completely change course. (Accommodating such a change is the primary reason that BPA uses a methodology based upon relationships [qualitative analysis].)

The specific actions being considered today are different from those 10 or 20 years ago. The specific actions of the future may be different, too. Developments in science and technology, past successes and failures, different personnel, changes in focus from salmon to multi-species, and a change in perspective from hydro actions to reviewing the interaction of all the "Hs" (habitat, harvest, hatcheries, and hydrosystem) are just a few examples of changes that have occurred recently. Although the specific actions may change, the underlying concepts of the action's extent and impact on the environment will not. The methodology used in this DEIS allows policies to evolve with changing circumstances. In the event that future developments necessitate changes beyond the specific actions currently being considered under the Policy Directions, we have identified "Reserve Options" to ensure that future decisionmakers have the flexibility to respond to significant changes.

Reserve Options represent a variety of alternative actions. They are not currently included as part of the Policy Directions, but they are discussed below. The Reserve Options are to provide future decisionmakers with the ability to extend or intensify actions already in place. Reserve Options represent potential actions beyond today's

consideration for implementation. We discuss them in this DEIS to allow for changes in public perception about what is feasible and the possibility that extensions of current actions may be needed to respond to future conditions. Table 4.2-3 lists the extreme endpoints for future action. See also Figure 4-3.

For example, one Policy Direction (Natural Focus) may call for removing two mainstem dams and four dams on the Snake River. If this action were implemented and judged successful, future decisionmakers might want to breach additional mainstem dams. Consequently, one of the endpoints for the Reserve Options is to "breach, or remove all dams." Decisionmakers would be free to increase dam breaching incrementally—removing additional dams as desired—until the endpoint is reached and no further action is feasible. With each step toward an endpoint, environmental consequences and socioeconomic effects would become more intense and extensive, although the *kinds* of effects anticipated would remain the same. To more fully understand the anticipated effects of implementing actions along the possible range of Reserve Options, please see Chapter 5.

When using Reserve Options, as with the mix-and-match approach described above, decisionmakers must understand two important points:

- **Reserve Options should be compatible and consistent with a Policy Direction.** If a decisionmaker chooses a Reserve Option that is inconsistent with the theme of the current Policy Direction, he or she must revisit the choice and ask several questions. Has the region's approach to fish and wildlife recovery changed? If so, is a new Policy Direction being established? If not, will implementing a Reserve Option undermine efforts to achieve the current Policy Direction objectives?
  - **Public process will be required.** Even if the Reserve Option is consistent with the current Policy Direction, regional discussion and public process must be initiated, because Reserve Options may represent actions that are a substantial change from the time the region selected the initial Policy Direction.
- **Chapter 5 presents the environmental consequences of the different Policy Directions.**

**Table 4.2-3: Key to Reserve Options**

<b>Endpoints of the Reserve Options in the Fish and Wildlife Implementation Plan</b>					
<b>Fish and Wildlife Reserve Options</b>					
	<b>Natural Focus Endpoints</b>	<b>Example</b>		<b>Commerce Focus Endpoints</b>	<b>Example</b>
RO-1 <i>Habitat</i>	Restore pre-dam habitat	Restore impaired habitat to pre-1930's conditions.	RO-7 <i>Habitat</i>	No habitat restoration, or restore only if most cost-effective.	No active restoration, passive restoration only if no other economical use
RO-2 <i>Habitat</i>	Preserve all existing habitat	Do not allow any disturbance to existing habitat	RO-8 <i>Habitat</i>	Maximize commercial use of habitat resources	Allow any development or commercial use of existing habitat
RO-3 <i>Harvest</i>	Ban all harvest	Total closure of all commercial, tribal, and recreational harvest	RO-9 <i>Harvest</i>	Allow unrestricted harvest	Any harvest allowed. Economic factors will determine best amount of fishing
RO-4 <i>Hatchery</i>	No hatcheries	All hatchery operations cease and hatchery facilities are closed.	RO-10 <i>Hatchery</i>	Meet all mitigation requirements with production hatcheries and fish farming	Build any cost-effective hatchery
RO-5 <i>Hydro</i>	Existing hydrosystem operated entirely for fish and wildlife	Operations only consider tradeoffs between species and timing of releases; all hydropower, transportation, and flood control incidental	RO-11 <i>Hydro</i>	Existing hydrosystem operated entirely for commercial purposes	Operations consider tradeoffs between all commercial uses, fish produced only if economical or incidental to economic purposes
RO-6 <i>Hydro</i>	Breach or remove all of the mainstem dams	John Day and McNary are already considered for breach or removal in one or more Policy directions, but this module would allow for additional mainstem dams to be considered.	RO-12 <i>Hydro</i>	Build more dams	Maintain existing hydrosystem and build more dams if cost-effective

**Figure 4-3: Continuum of Reserve Options for Possible Future Action**

