



Conservation of Columbia Basin Fish

Draft Basin-wide Salmon Recovery Strategy

Update of the All- H Paper • July 27, 2000

Executive Summary



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*Prepared by
The Federal Caucus*

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Bureau of Land Management
Bureau of Reclamation
Environmental Protection Agency
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FOR MORE INFORMATION:

Copies of the Draft *Conservation of Columbia Basin Fish, Building a Conceptual Recovery Plan* and Appendices, the preliminary final *Conservation of Columbia Basin Fish, Draft Basin-wide Salmon Recovery Strategy* and Appendices, and this Executive Summary are available on the Federal Caucus Web site: www.bpa.gov/federalcaucus.

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EXECUTIVE SUMMARY

Introduction

Many salmon and steelhead populations in the Columbia River Basin will be extinct or nearly so by the end of this century, unless the region makes major changes to improve their survival. Federal agencies have a fundamental responsibility under the Endangered Species Act to prevent extinction and foster recovery of listed species. This paper presents the federal government's recommendations for actions needed to recover threatened and endangered salmon and steelhead in the Columbia River Basin. It is designed to complement the recovery plans for resident fish and other aquatic species, and builds on actions already taking place to recover these species. Columbia Basin fish and wildlife will thrive again only if the people and governments of the basin work together; this paper commits the federal government to doing its part to conserve a precious national resource.

In 1994, a federal court rejected the 1993 Columbia River hydropower biological opinion, saying the "system was crying out for a major overhaul." These were the strongest words yet heard from the courts about the urgency of restoring salmon and steelhead runs to the Snake River. They served as a wake-up call for federal agencies, states, and other followers of Columbia Basin recovery efforts. The following year, the federal government initiated that overhaul in a new biological opinion that fundamentally altered the way the federal power system is operated. That opinion placed the needs of fish on equal footing with power generation, flood control, navigation, and irrigation. In the process, it brought changes to the power system that have significantly improved juvenile and adult fish survival.

The intervening five years have brought new information and changed circumstances to the issue. Nine more populations of salmon and steelhead have been listed under the Endangered Species Act. Notably, these listings included chinook and steelhead species inhabiting the Upper Columbia, Mid-Columbia, and Lower Columbia regions. The strategies in the 1995 decision focused on the options for rebuilding Snake River stocks alone. The additional listings have broadened the recovery challenge beyond the Snake River to encompass the entire basin.

In addition, new research and analyses have focused increased attention on human impacts on listed fish outside the hydropower system, exposing the extent to which land use, tributary water management, hatchery policies and harvest practices have contributed to the declines. This new research suggests that the greatest opportunities for survival improvements may lie outside the

scope of the hydropower corridor, and hinge on efforts to restore health to the tributaries and estuary where these populations spawn and rear.

The federal overhaul begun in 1995 is not yet complete and it must be broader in scope than earlier thought. As a new millennium begins, native salmon and steelhead, and many resident fish species, remain in a state of perilous decline throughout the Columbia River Basin concurrent with rapidly increasing human population growth and even greater pressure on existing natural resources. This Conceptual Recovery Plan calls for changes needed to recover salmon and steelhead, including additional improvements to the hydropower system, but also those needed to address human impacts to fish in all life stages. It also tries to account for natural cycles of environmental variation.

Federal agencies can implement much of the Plan using existing authorities and capabilities. Some recommendations will require new authorizations and congressional support or action by state, tribal and local governments. The federal agencies cannot solve this problem alone, or by acting unilaterally. Strong action by state and tribal governments, local authorities, and other participants must occur for recovery to succeed. All parties must coordinate efforts to fully realize benefits to species in decline.

The Federal Caucus Plan places priority on actions with the best chance of being implemented, the best chance of providing solid and predictable biological benefits, and the best chance of benefiting the broadest range of fish species. It calls for a contribution from governments and individuals at all levels, yet it also recognizes and complements the strong efforts already underway throughout the region.

It is important to recognize resources are limited. Congress and the region are most likely to commit resources to actions with immediate, predictable and broad benefits. Recovery efforts will be most effective — and resources most efficiently used — if all of the federal agencies coordinate their respective programs, and if they collectively coordinate with state and tribal programs.

The actions recommended are presented as a plan, not a menu. Improving conditions in many life stages, — freshwater spawning and rearing, juvenile migration, ocean transition, and upstream migration — is the most risk averse approach to achieve recovery of threatened and endangered salmon and steelhead. The Plan includes immediate actions aimed at all life stages to prevent extinction, and long-term actions to foster recovery. It is based on a thorough review of the best available scientific information about the anadromous fish life cycle, from spawning and rearing, to river migration and over-wintering, to hatchery interactions, to predation and ocean conditions. Actions taken to recover anadromous species are also intended to benefit resident fish and other aquatic species.

Because there are gaps and unavoidable uncertainties associated with the science, the Federal Caucus will establish a comprehensive research monitoring and evaluation program to reduce those uncertainties, and provide information for needed adjustments to strategies in the future. The federal agencies will measure progress in the life stages against performance standards for

each stage. Performance standards are central to the program because they provide clear objectives, measurable results and accountability.

Actions federal agencies can take now to stabilize populations and show immediate results across all life stages are the core of the Plan. Habitat actions will protect and restore tributary habitat to improve survival during spawning and rearing. These include removing passage barriers, screening diversions, purchasing in-stream flow rights, restoring water quality and acquiring high-quality habitat. The estuary is an important habitat used by all salmon and steelhead in the basin. Actions in the estuary include the restoration of tidal wetlands, rearing channels and flood plains. Actions in other sectors will help prevent extinction in the near term. These include improving passage through the dams, capping harvest, reforming existing hatcheries, and intervening with conservation hatcheries on an emergency basis where populations are at risk of imminent extinction.

The Plan also calls for coordinated subbasin assessments and plans, as proposed by the Northwest Power Planning Council. Plans will be organized around subbasins and be developed with states, local governments, tribes, private parties and federal agencies. This effort will require a solid commitment to action and coordination by all parties.

Much of the regional debate has focused on removal of Snake River dams. There is little doubt dam removal would benefit Snake River salmon and steelhead. The National Marine Fisheries Service is not recommending it at this time, however, for several reasons. There is scientific uncertainty about whether breaching dams is necessary to achieve recovery and whether breaching alone can lead to recovery. Only Snake River fish show a benefit from breaching, with no benefit to the other eight listed populations that do not originate in the Snake River Basin. Dam removal is not within the existing authority of the federal agencies, and cannot be implemented in a short time frame. And its high cost could preclude other actions needed throughout the basin. In short, the option of Snake River drawdown ranks as a lower priority than other available options because of narrow benefits, high uncertainties and high costs, and on balance does not appear to be warranted at this time.

The aggressive Plan is designed to provide immediate benefits and lead to salmon and steelhead recovery. This approach leaves breaching on the table as a future option, but challenges hydropower system operators now to meet rigorous survival goals over a discreet period, using continued improvements in flow and spill management and structural improvements at dams. System performance will be evaluated against science-based, peer-reviewed performance standards at five-, eight-, and ten-year intervals. Dam removal will again be joined if progress is inadequate or the Snake River populations decline, but not prior to testing the actions contained in the overall Plan. The Plan also commits the federal hydropower system to fund habitat, harvest and hatchery actions to mitigate for unavoidable mortality in the federal hydropower system.

Background

The decline of the Columbia's once-numerous fish runs is well documented. The human activities that have caused the decline of these fish are habitat, harvest, hatcheries, and hydropower. In December 1999, the nine agencies that make up the Federal Caucus released a draft of the Conceptual Recovery Plan outlining the difficult choices the region faces in recovering listed species.

In 15 public hearings, the Federal Caucus heard from more than 9,000 Northwest citizens. Over 60,000 written comments were received on the Plan and the Army Corps of Engineers' Lower Snake River Juvenile Salmon Migration Feasibility Study and Draft Environmental Impact Statement. The Federal Caucus also consulted with the region's Indian tribes, who have a special interest in the natural and cultural resources of the basin, especially its fish and wildlife. The message was clear. The people and governments of the region will make sacrifices to save the fish, but they want the burden to be shared and they want actions that will work.

This Plan reflects those comments and updated scientific information. Federal agencies will use this Plan as a blueprint to guide federal actions and interactions with state and local governments and tribes. NMFS and USFWS will use it to guide their decision-making through biological opinions issued under the Endangered Species Act.

Program Goals

The Federal Caucus has six goals for this Conceptual Recovery Plan:

- **Conserve Species.** Avoid extinction and foster long-term survival and recovery of Columbia Basin salmon and steelhead and other aquatic species.
- **Conserve Ecosystems.** Conserve the ecosystems upon which salmon and steelhead depend.
- **Assure Tribal Fishing Rights and Provide Non-Tribal Fishing Opportunities.** Restore salmon and steelhead populations over time to a level that provides a sustainable harvest sufficient to allow for the exercise of meaningful tribal fishing rights and provide non-tribal fishing opportunities.
- **Balance the Needs of Other Species.** Ensure that salmon and steelhead conservation measures are balanced with the needs of other native fish and wildlife species and do not unduly impact upriver interests.
- **Minimize Adverse Effects on Humans.** Implement salmon and steelhead conservation measures in ways that minimize their adverse socio-economic and other human effects.
- **Protect Sensitive Indian Cultural Resources.** In implementing conservation measures, act to preserve resources important to maintaining the traditional culture of basin tribes.

The Plan includes a combination of actions most likely to meet these goals. The actions reflect the best scientific understanding of what is necessary to conserve the species and their

ecosystems. The Plan contemplates maintaining tribal fishing opportunities in the near term, and expanding them over time. The Plan recognizes the needs of other at-risk fish, wildlife and plant species within the basin. The Plan seeks to provide a measure of social and economic certainty by seeking maximum benefit from the available resources, with clearly established implementation and monitoring processes.

Biological Considerations

The scientific analyses examined the risks and opportunities facing all salmon and steelhead population groups (known as “Evolutionarily Significant Units,” or ESUs) listed under the ESA. In addition to assessing extinction risks, the analysis looked at how much improvement is needed to achieve survival and recovery. In short, it gives a sense of how the fish are performing now, the level at which they need to perform to avert risk, and the areas where improved performance are likely to have the greatest effect. The results are sobering. Generally, fish from the upper Columbia and Snake rivers have the furthest to go to reach recovery. Spring chinook in particular have an extremely high extinction risk in both the upper Columbia and Snake rivers.

The analyses also looked at those life stages where survival improvements would provide the greatest benefit. Generally, these are the life stages where the fish suffer the greatest mortality. The analysis shows that the highest mortality occurs in the first year of life and in the transition from freshwater to saltwater. Although mortality from dam passage is high for ESUs in the upper Columbia and Snake rivers, improving downstream survival, by itself, is unlikely to recover any of the upper basin species. For all ESUs, the analysis concluded that improvements in more than one life stage give the best chance for recovery.

There will always be a high degree of uncertainty about the science, given the sheer number of variables that affect salmon and steelhead performance. However, the agencies are prepared to take action in the face of uncertainty, based upon current knowledge. Ongoing uncertainties simply emphasize the importance of accountability, monitoring, and evaluation. It is critical to maintain the ability to adapt the strategy to reflect the latest information as the science evolves.

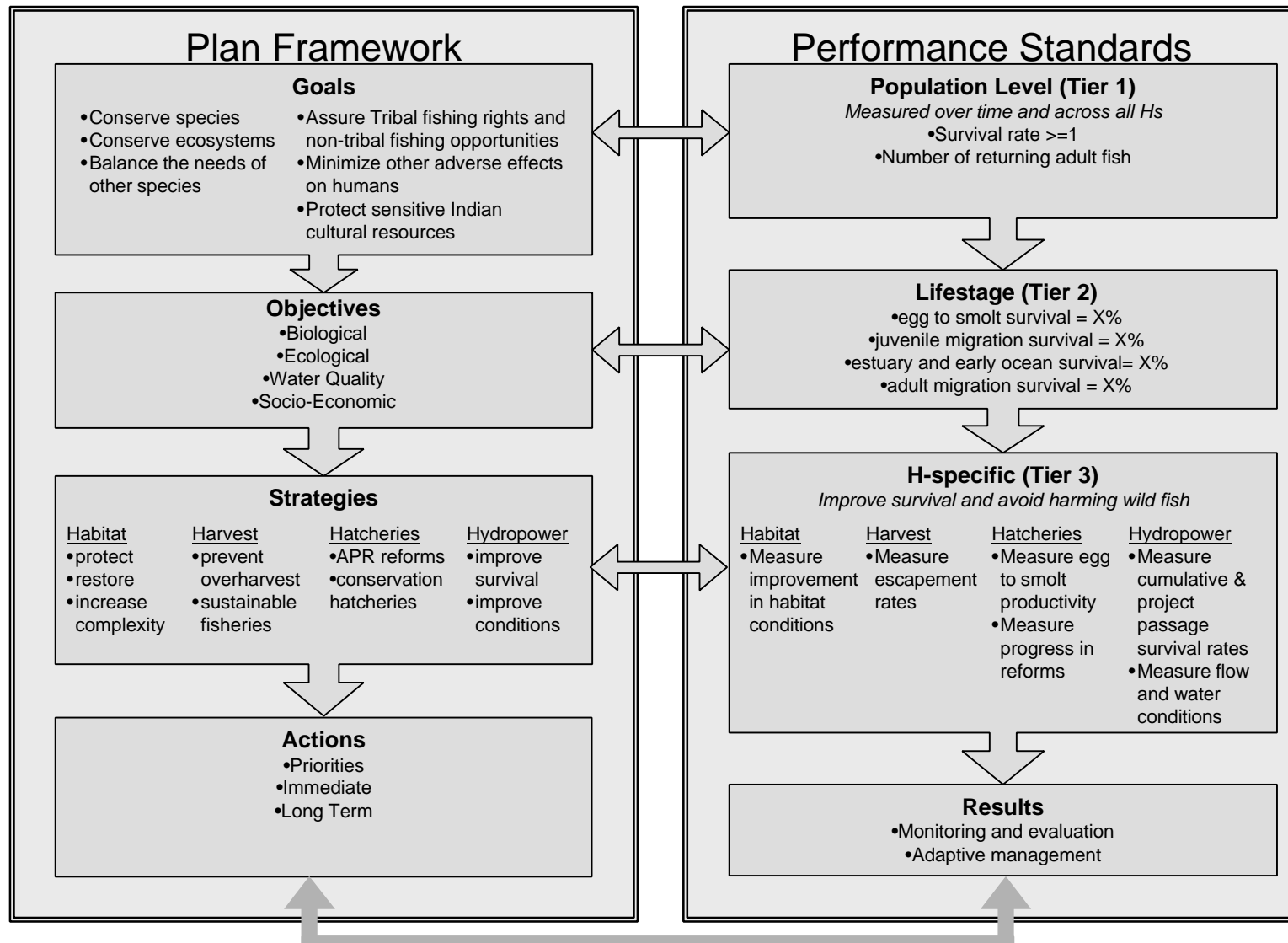
Conceptual Recovery Plan

The Conceptual Recovery Plan identifies immediate actions to prevent extinction and foster recovery by improving survival across all of the life stages. It emphasizes actions that are currently authorized, that have predictable benefits, and that benefit a broad range of species. It contains strategies and specific actions that will make federal, state and local actions more aggressive and more effective (see Figure 1). For the longer term, it identifies steps to develop recovery plans. Its

Recovery Strategies:

- Habitat: Take immediate actions to restore streamflow, remove passage barriers, protect high quality habitat and screen diversions.
- Habitat: Complete subbasin assessments and plans to prioritize longer-term actions.
- Hydropower: Maximize survival in the hydropower system through flow, spill, passage, and water quality measures and maintain dam breaching as a future option depending on progress in fish recovery.
- Hatcheries: Prevent extinction through supplementation.
- Hatcheries: Reform hatchery practices to eliminate risks to wild fish.
- Harvest: Cap harvest at or below current levels.

Figure 1 Conceptual Recovery Plan



success is premised on securing contributions to recovery from all governments within the region.

Fixing salmon and steelhead **habitat** is particularly challenging. These fish range through federal and nonfederal land, forests, farms and cities. A vast number of human activities affect their habitat. In addition, very few studies have been done that quantitatively link management actions with habitat quality, and habitat quality with fish production. Yet there is no doubt fixing habitat is central to any recovery plan. Survival improvements are likely to have the biggest effect in the first year of life (when most of the fish are in the tributaries) and during the transition to salt water (when the fish are in the estuary). Fixing tributary and estuary habitat is key to recovering the fish and is the centerpiece of the Plan. Actions in the Plan focus on tributary habitats, both federal and non-federal; mainstem habitat, estuary habitat, and implementation.

For tributary habitats on nonfederal lands, the federal agencies will fund actions that will have immediate benefits. These include actions aimed at removing passage barriers, screening diversions, increasing in-stream flow, restoring water quality and protecting high quality habitats through the purchase of land or conservation easements across all lines of land ownership.

For long-term actions, the Conceptual Recovery Plan endorses the Northwest Power Planning Council strategy of conducting subbasin assessments and developing subbasin plans. The federal agencies have worked with the Council to develop an assessment template and a work plan to have a team of professionals complete the assessments. Once the assessments are complete by the end of 2000, the federal agencies will participate with state agencies, local governments, tribes and stakeholders to develop subbasin plans. As a complement to subbasin assessments and plans, NMFS has also begun a recovery planning effort that will establish population and ESU goals for abundance, productivity, distribution and diversity. The subbasin and recovery plans will then create the priorities for federal actions and funding.

For tributary habitats on federal land, the federal land managers will protect existing high quality habitat and accelerate restoration in high priority subbasins. In the short term, federal land will be managed under current programs that protect important aquatic habitats. That program will be augmented in important subbasins by a targeted restoration effort. In the longer term, federal land on the east side of the Cascades will be managed under the Interior Columbia Basin Ecosystem Management Project (ICBEMP), which will rely on subbasin and watershed assessments and plans to target further habitat work. On the west side of the Cascades, federal lands are managed under the Northwest Forest Plan.

Habitat Plan:

- *Immediate Actions* – Improve in-stream flows, restore water quality, screen diversions, remove passage barriers, secure high quality habitat.
- *Manage federal lands to protect fish.*
- *Protect and improve estuary habitat.*
- *Protect and improve tributary habitat.*
- *Improve mainstem habitat.*

Federal agencies will assess mainstem habitat and implement experimental programs to create more natural habitat areas along our system of reservoirs. They will also establish a management plan to protect the Hanford Reach, home to a healthy core population of fall chinook.

For the estuary, the Lower Columbia River Estuary Program, a partnership between EPA and state and local governments and citizens, will be the foundation of the recovery effort. As part of this Plan, federal agencies will work with state, local, tribal, and private partners to acquire or restore thousands of acres of estuary habitat over the next 5-10 years, creating a Lower Columbia River Greenway to benefit migrating fish. Predator control and improved river flows will be prominent features of efforts to improve the estuary.

The salmon's vast geographic range spans literally hundreds of different jurisdictions. Lack of coordination among these jurisdictions can undermine the best-laid habitat protection plans. The Conceptual Recovery Plan emphasizes coordination among federal agencies, and between the federal agencies and others. Coordination will occur through a federal habitat team, which will also provide a basin-level focus and one-stop shopping for states, local governments, tribes and others working to protect and restore habitat. In addition to coordinating federal funding with the subbasin plans adopted by the Council, the team will provide technical assistance, information on ESA and Clean Water Act compliance, and coordinate federal funding.

Another important aspect of implementation is monitoring and evaluation. The federal agencies have identified critical uncertainties that must be answered to establish an effective habitat program. The Plan proposes a comprehensive, basinwide monitoring effort that will address these critical uncertainties.

The Conceptual Recovery Plan limits **harvest** to no more than current levels, seeks opportunities to reduce harvest impacts on listed fish where necessary and effective, and seeks additional fishing opportunities in fisheries that do not affect wild fish, with particular emphasis on selective fisheries.

Cutting harvest immediately increases spawning escapement and can reduce near-term risks of extinction. However, reductions in harvest rates on natural stocks have been the first response to declining production and ESA listing, and now harvest rates are so low for most stocks that further reductions will not yield major benefits. Most of the harvest impacts remaining on listed fish occur in treaty-protected fisheries, which have been especially hard-hit in recent years.

Although further reductions in the already-reduced harvest might provide small additional benefits for listed fish, the Plan does not generally recommend that action because of the importance of the treaty fishing right and the federal trust obligation.

Federal agencies will, however, seek to reduce impacts from harvest on the listed fish where such additional cutbacks are necessary and effective at aiding recovery. They will enable more selective fishing opportunities by marking most unlisted hatchery fish and developing and

Harvest Plan:

- Cap harvest at currently reduced rates.
- Increase selectivity of harvest and reduce take of listed fish further.
- Provide opportunities for increased harvest that does not affect listed fish.

promoting the use of selective fishing techniques and locations to open up opportunities for increased tribal and non-tribal fishing while still protecting the listed stocks. They will also provide funds to buy back state-issued commercial fishing licenses when doing so would be effective at reducing fishing effort.

The Conceptual Recovery Plan contains two primary **hatchery** initiatives. The first is to reform all existing production and mitigation hatcheries to eliminate or minimize their harm to wild fish. The second is to use conservation and supplementation programs on an interim basis to avoid extinction while other recovery actions take effect.

Hatchery Plan:

- Reform production facilities to minimize harm to wild fish.
- Use conservation and supplementation facilities to avoid extinction.
- Conduct aggressive research, monitoring, and evaluation program to quantify hatchery impacts over time.
- Transfer operation of certain hatchery production programs or ownership of certain hatcheries to tribes, subject to approved HGMPs, to facilitate co-management and tribal fisheries.

Protecting and managing for species diversity is the key to reforming hatchery operations. Diversity is reflected in the wild fish that are genetically adapted to the areas they inhabit. To protect this diversity, it is critical that hatcheries draw from the gene pool appropriate for the area. The Plan requires that any agency operating a hatchery develop a genetic management plan to govern production. Hatcheries will also be required to improve operations in other respects to ensure that the fish they release do not pose a threat to wild fish inhabiting the same areas, and to improve the survival rates of the

hatchery stocks themselves.

The second part of the hatchery plan is to use conservation techniques to support weak stocks, at least on an interim basis. This will be done by collecting eggs and sperm from wild fish. The eggs will be fertilized and raised in a semi-natural environment. The fish will then be released into areas inhabited by the wild population, in theory adding abundance to the natural run.

Another key element of the hatchery plan will be to establish a research program designed to clarify wild-hatchery fish interactions and quantify the effects of hatchery supplementation on wild fish with a strong degree of certainty.

Another element of the hatchery plan involves using hatcheries to create fishing opportunities that are benign to listed populations, such as in terminal areas. This is particularly important to assist tribal fisheries. An example of one such program is the ongoing restoration efforts in the Umatilla Basin, which has resulted in fish returning to the river, and tribal and non-tribal fishing opportunities. In some cases, existing hatcheries could be transferred to or operated by the tribes for these purposes.

All salmon and steelhead in the basin are affected to some extent by the **hydropower** system. The Conceptual Recovery Plan calls for an aggressive program of improvements at existing dams, building on the survival improvements from current efforts. The Plan does not recommend

removal of Snake River dams at this time. Instead, it establishes performance standards for survival of juvenile and adult fish, and a schedule for meeting those standards. Performance standards are to be met through an aggressive program of improvements that includes more flow, more spill, and continued improvements in the dams themselves to pass more fish safely. If the schedule for performance standards is not met, and further contemporary studies suggest Snake River dam removal will recover Snake River stocks, NMFS would recommend breaching one or more of those dams.

Hydropower Plan:

- Improve flows.
- Improve spill and passage at dams.
- Improve water quality.
- Reduce fish trucking.
- Implement measures to protect resident fish.
- Conduct analysis of economic and cultural implications of dam breaching.
- Improve nonfederal hydropower dams.

The hydropower plan adds an element that was not in the draft Plan – off-site mitigation. The federal agencies responsible for the hydropower system will use appropriated and ratepayer funds primarily to fix habitat, harvest and hatcheries. Part of the ultimate decision on dam removal will depend on the ability of the hydropower system to improve fish survival through off-site mitigation measures.

Finally, the hydropower element includes a performance review in five years to determine whether the performance standards remain valid, and whether the system is on track to meet them. After ten years, a determination will be made whether the hydropower system performance has been sufficient to achieve recovery in combination with other measures, and, if not, whether breaching or other actions will be necessary. The Federal Caucus would seek review of these determinations by the Independent Scientific Advisory Board.

Implementation

The success of the Conceptual Recovery Plan hinges on active and effective leadership and significantly improved coordination among federal, state, tribal, and local agencies. Meeting these challenges successfully will require a renewed level of commitment and discipline for the governments of the Pacific Northwest. Successfully implementing actions in the habitat, harvest and hatchery sectors will be necessary for salmon recovery, regardless of the ultimate decisions by Congress on the subject of removing or reconfiguring federal dams.

Implementation:

- Coordinated federal funding and priorities
- Establishment of priorities
- Five-year and ten-year reviews
- Use of performance standards

A number of specific actions will make federal implementation of salmon conservation measures more effective. Most important is securing a level of funds to implement the Conceptual Recovery Plan. Also important is coordinated funding and priorities. Federal agencies will continue to participate in a federal caucus that will oversee implementation by federal agencies.

The federal agencies will also establish mechanisms to coordinate federal actions in each H. For hydropower, the agencies will continue to work through a regional forum process similar to the one that has existed for several years. For habitat, the agencies will establish an interdepartmental habitat caucus staffed by an interagency habitat team, described in the habitat section. Harvest will continue to be coordinated through the existing forums in *U.S. v. Oregon* and the Pacific Salmon Commission. Hatchery actions will be coordinated with the Council's annual funding process. NMFS and USFWS will also ensure implementation in all of the Hs through biological opinions.

The federal government will use these mechanisms to coordinate and engage with governments within the region to take maximum advantage of available resources and authorities. Significant initiatives are already underway within the region, including the Council program, tribal programs, state plans, and community-level efforts. The federal government intends its activities to complement and encourage such efforts, not suffocate them with additional and redundant mandates.

The Plan provides a disciplined structure for salmon and steelhead recovery, with specific goals and objectives. A fundamental part of this approach is establishing biologically-based performance standards for listed species for freshwater habitat, the hydropower corridor, and for estuary and early ocean survival. These performance standards will serve as the yardsticks to measure progress and judge whether dam reconfigurations and other actions must occur to rebuild populations.

Research, Monitoring and Evaluation

Properly designed monitoring programs will provide data for resolving a wide range of uncertainties, including determining population status, establishing causal relationships between habitat (or other) attributes and population response, and assessing the effectiveness of management actions. The information gained through monitoring programs will be a cornerstone in identifying alternative actions and refining recovery efforts. Such programs are therefore not only an integral part of any management action, but also a critical component of a recovery plan or adaptive management, affording managers the information to maintain or change strategies as necessary.

A complete monitoring program will address the following four major groupings of questions:

- **What is the status of salmonid populations; does that status change through time?**
- **What are the conditions in areas of different salmonid abundance; and, are there systematic patterns suggesting that specific natural or anthropogenic factors affect salmon population dynamics?**
- **Is there a cause and effect relationship between salmonid population responses and changes in conditions locally or across the landscape?**

- **Have management actions been implemented; have they been implemented appropriately and in their entirety?**

Conducting monitoring and evaluation effectively will require that both data collection and the implementation of management actions be highly coordinated. Collecting data to address any of these questions will require attention to issues of experimental design, including distribution of monitoring sites, appropriate replication and scale. Management actions must be conducted in the context of an experimental framework that will offer the greatest opportunities for detecting responses in the shortest amount of time. Similarly, it will be imperative that data collection be conducted in a standardized manner and that data is reported and managed in a regional database. Failure to maintain a scientifically rigorous, coordinated effort will not only render any monitoring program useless, but will also undercut the importance of the management actions themselves, since they will no longer contribute to our understanding of salmonid population responses.

The Northwest Fisheries Science Center, in collaboration with other regional science centers and other federal, state, tribal and local agencies, will develop a monitoring and evaluation program that addresses these major areas. The Federal Caucus will report annually on federal agency progress in carrying out recovery actions, including the availability of resources and the agencies' ability to carry out the Conceptual Recovery Plan. These reports would also be geared to support long-term biological monitoring to assess the contribution of improvements in each H to improvements in population growth rates or other biological indicators.

Working with the Region

Through a comprehensive effort that combines separate yet interrelated actions, a better future for the basin can be charted. It is time for citizens, governments and special interests in the Columbia River Basin to collectively take immediate and sustainable actions to rebuild the health of the basin. The Federal Caucus tenders this proposal to decisionmakers, the Northwest Delegation, and state and tribal administrations as a launching point for an aggressive, feasible, scientifically-based, balanced path toward basin recovery and rebuilding. Through consultation and collaboration, we hope to refine this proposal so that in its final form, it can serve as a comprehensive, long-term strategic direction for impending actions in the basin.