COLUMBIA BASIN
FISH AND WILDLIFE AUTHORITY

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Coordinating and promoting effective protection and restoration of fish, wildlife, and their habitat in the Columbia River Basin.

The Authority is comprised of the following tribes and fish and wildlife agencies:

Burns Paiute Tribe

Coeur d'Alene Tribe

Confederated Salish and Kootenai Tribes of the Flathead Reservation

Confederated Tribes of the Colville Reservation

Confederated Tribes of the Umatilla Indian Reservation

Confederated Tribes of the Warm Springs Reservation

Confederated Tribes and Bands of the Yakama Nation

Idaho Department of Fish and Game

Kootenai Tribe of Idaho

Montana Fish, Wildlife and Parks

National Marine Fisheries Service

Nez Perce Tribe

Oregon Department of Fish and Wildlife

Shoshone-Bannock Tribes of Fort Hall

Shoshone-Paiute Tribes of Duck Valley

U.S. Fish & Wildlife Service

Washington Department of Fish and Wildlife

Coordinating Agencies

Columbia River Inter-Tribal Fish Commission

Upper Columbia United Tribes

Compact of the Upper Snake River Tribes

Further Clarification on the Agencies' and Tribes' Amendment Recommendations Presented to the Northwest Power and Conservation Council's Fish and Wildlife Committee

July 15, 2008

The fish and wildlife agencies' and Tribes' submitted an adaptive management framework for inclusion in the next iteration of the Council's Fish and Wildlife Program (Amendment 1.4). Additionally, individual agencies and tribes submitted more specific amendment recommendations to be included as measures within the overall framework.

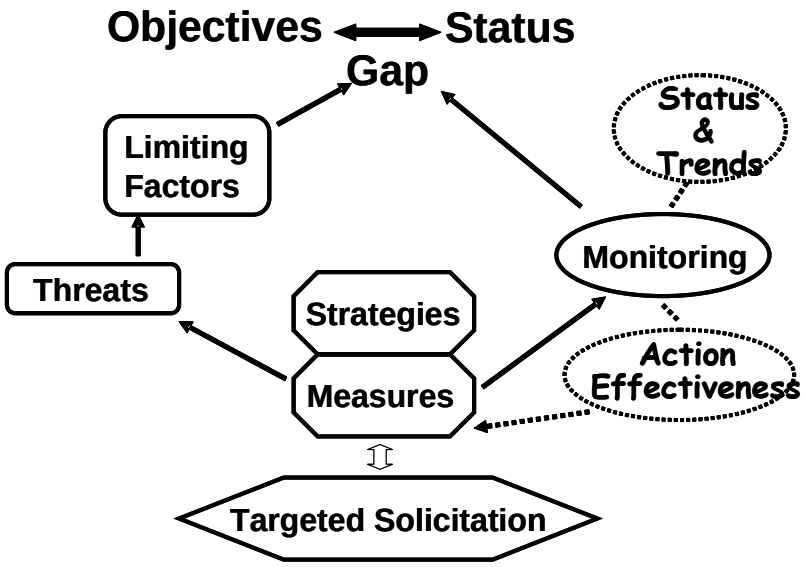

Figure 1.4. Adaptive management architecture to support decision making in the Columbia River Fish and Wildlife Program, arrows indicate quantifiable linkages.

Definition of Terms

Biological Objective
The desirable condition or state that one is attempting to achieve through a course of action. Objectives for species may have two components: (1) biological performance, describing responses of populations or aggregate populations/communities, and/or (2) environmental characteristics, which describe conditions needed to achieve biological performance. Biological objectives are intended to be measurable and should have spatial and temporal components.

Limiting Factor
Environmental (biotic or abiotic) condition that prevents a population from reaching its biological objective. If removed, the target population would be expected to expand.

Threat
Activity or condition (e.g., legacy) that contributes to or causes one or more limiting factors.

Strategy
A strategy is an approach to achieve biological objectives by addressing limiting factors or threats.

Measure
Specific action to be undertaken to contribute to achieving biological objectives

Level of Specificity for Measures

In order to implement the adaptive management framework proposed by the agencies and tribes, strategies and measures are required to link limiting factors and threats with a quantification of expected outcomes toward the filling the identified biological gaps (see Figure 1.4).

Measures should be expressed in a way to provide specific enough information to support targeted solicitations for a project solicitation process. The range of specificity of measures should be consistent with the recent MOAs between BPA and the tribes, where the level of specificity for actions varied depending on the type of action and amount of planning completed for each action. The range of specificity should also be consistent with that defined in recovery plans.

Use of All-H Analyzer in Agencies' and Tribes' Recommendations

The fish and wildlife agencies and tribes through CBFWA provided subbasin-specific summaries for strategies and measures to address factors limiting anadromous fish. These summaries were based on existing subbasin plans and proposed and final recovery plans. CBFWA's submittal included results from the All-H Analyzer (AHA) model to provide a general picture of the potential response of anadromous salmonid abundance to implementation of proposed strategies and measures. The AHA inputs and results were developed and shared in a series of open workshops held throughout the Columbia River Basin. Inputs and methods were generally supported by participating fishery managers and other workshop participants.

Results from AHA modeling were provided as background material, in addition to other analyses, that the fishery agencies and tribes considered when developing their recommendations for Program recommendations. However, the AHA modeling was not used to develop biological objectives, strategies, or measures, nor did the fishery agencies and tribes provide recommendations that depended on the AHA analyses.

- The AHA model is not a tool to develop goals or objectives. It is a tool to assess the potential of various actions in achieving goals or objectives and to compare the effects among potential actions.
- Biological objectives are clearly labeled as being from subbasin plans, draft recovery plans, or from a specific fishery manager (many subbasin plans did not include biological objectives).
- Strategies and measures were developed from, and are consistent with subbasin plans and recovery plans. Many were developed in cooperation with and are supported by recovery planners. We are working with other recovery planners to ensure that revised strategies and measures are consistent with recovery plans.
- Results from AHA modeling are included only to indicate a relative, potential response of population abundance to implementation of strategies and measures. Acceptance or non-acceptance of these results had no bearing on CBFWA's recommended strategies and measures.
- The results from the AHA exercise provide a general nexus to the FCRPS for supporting off site mitigation actions that are funded by BPA. This does not define FCRPS responsibility per se, but can provide an indication of the potential value of off-site actions within a subbasin.

Resident Fish and Wildlife Loss Assessments

The agencies and tribes recommended developing resident fish loss assessments and wildlife operational loss assessments. These two efforts are closely connected and represent a common effort.

Resident fish loss assessments have been developed for Hungry Horse and Libby dams and have guided implementation of resident fish projects in Montana for the past 15 years. Currently, the Kootenai Tribe is developing potential loss assessment protocols for the Kootenai River.

Construction and inundation losses are relatively simple to calculate, incorporating benefits as well as losses; however, losses for operations can be more difficult but can be calculated. Loss statements are the basis for assigning responsibility and provide an opportunity for crediting activities against an expressed obligation.

Loss assessments would allow linking projects to FCRPS responsibilities and would preclude BPA funding non-FCRPS responsibilities. Subbasin plans provided comprehensive restoration strategies but did not provide the detail to differentiate impacts directly related to the construction and operation of the FCRPS.

The development of loss assessments should not detract from existing on-the-ground resident fish efforts but should enhance existing projects and be considered in addition to those efforts.

Loss assessments would support identification of others' responsibilities and would encourage partnerships and cost-share opportunities for the Program.

Agencies' and Tribes' Wildlife Recommendations

The agencies' and tribes' wildlife recommendations build off the 2000 Program to provide further clarity and improve Program implementation.

1) Operational Losses
   - The recommendations include a measure to develop an ecologically-based loss assessment process to quantify the operational impacts and subsequent mitigation obligation.

2) Long-Term Funding agreements for existing and future projects that:
   - Assure funding for the life of the hydroelectric project,
   - Assure sufficient funding to implement habitat management strategies and monitoring and evaluation needs identified in project management plans,
   - Provide flexibility to respond to uncertainties and unforeseen events, and
   - Provide adjustments for inflation.

3) Crediting measures include:
   - Amending Table 11-4 of the 2000 Program to equal 200 percent of the habitat units identified in the loss assessments as specified in the 2000 Program,
   - Establishing a crediting forum to develop a regional protocol for maintenance of a crediting ledger and to formally include the crediting ledger in the Program, and
   - Establishing criteria for credit against Construction and Inundation losses. The criteria include:
     - Project areas must be permanently protected and dedicated to wildlife benefits through covenants, easements, fee title acquisitions or other appropriate agreements for the life of the hydroelectric project,
     - Projects must benefit priority species or populations as defined by Federal, State, Tribal wildlife management plans or subbasin plans,
     - A project management plan must be completed,
     - A long-term funding agreement adequate to support implementation of the management plan has been adopted.

4) Biological Objectives/RM&E
   - Add a Basin-wide biological objective for wildlife to "mitigate for all wildlife losses due to the FCRPS by protecting and enhancing the ecological function of wildlife habitat consistent with subbasin plans and state conservation strategies and tribal management plans",
   - Measures for RM&E and suggested program reporting elements to allow project managers to:
     - Track trends in ecological function,
     - Provide data to assess the effectiveness of management actions,
     - Effectively implement the principles of adaptive management,
     - Complement larger-scale efforts,
     - Establish reference sites.