

2006 FCRPS BiOp: Conceptual Framework for the Remand Process Including the Jeopardy Analysis

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Introduction

The Participants (the National Marine Fisheries Service [NMFS]; the U.S. Bureau of Reclamation [Reclamation]; the U.S. Army Corps of Engineers [Corps]; the Bonneville Power Administration [BPA]; the States of Oregon, Washington, Idaho, and Montana; the Nez Perce Tribe; the Confederated Tribes of Warm Springs; the Confederated Tribes of the Yakama Nation; the Confederated Tribes of the Umatilla Reservation; the Kootenai Tribe of Idaho; the Spokane Tribe; and the Confederated Tribes of the Colville Reservation) have discussed how to collaboratively develop the new proposed Federal Columbia River Power System (FCRPS) action¹ to be consulted upon for the remand by the Action Agencies (i.e., BPA, Reclamation, and the Corps) and how to identify steps aimed at recovery of the listed species in the course of developing the new proposed FCRPS action. Additionally, the Participants have discussed the general scope of and approach to the entire remand process. This paper addresses the conceptual framework which the Sovereign Participants intend to employ for the entire remand process, including recommendations to NMFS for conducting the jeopardy analysis.

Background

The conceptual framework for the 2006 FCRPS Biological Opinion (BiOp) was developed collaboratively among the Participants. Several key principles provide the foundation for the framework.

- Provide a scientifically defensible basis for the jeopardy analysis.
- Address each of the areas identified as inadequate in the 2004 BiOp by Judge Redden, including:
 - *Ensure mitigation measures are reasonably certain to occur*
 - *Consider effects of proposed action on survival and recovery*
 - *Aggregate ongoing impacts and impacts of proposed action*
 - *Include discretionary and nondiscretionary operations*
 - *Consider element of recovery in critical habitat*
- Provide a clear and complementary link to ongoing recovery planning efforts.

¹In addition to the FCRPS action, this consultation will address the mainstem effects of the operation and maintenance of 18 Reclamation projects, the operation and maintenance of the Columbia Basin Project, and other Reclamation actions regarding future new uses of Columbia Basin Project water supplies. For those 18 Reclamation projects which are located on tributaries occupied by the listed Evolutionarily Significant Units (ESUs), the tributary effects of the operation of these projects are covered or will be covered in separate consultations.

- Embrace an adaptive management approach based on clear objectives, effective management actions, rigorous monitoring and evaluation, and consideration of contingencies if objectives are not met.
- Establish a collaborative process.

Establish a transparent and collaborative remand process to aid in the development and implementation of the FCRPS BiOp.

Approach

Figure 1 provides a graphical illustration of the conceptual framework for the remand process. The conceptual framework follows a logical stepwise progression similar to that used for recovery planning. In general, the process establishes recovery objectives (Step 1); assesses current status (Step 2); describes the gap between current and recovered status (Step 3); assesses mortality factors contributing to the gap (Step 4); identifies and prioritizes management actions to fill the gap caused by FCRPS (Step 5A); considers those actions in aggregation with the baseline and cumulative effects associated with other actions (Step 5B); assesses the certainty of implementation and biological effectiveness of management actions (Step 6); describes the research, monitoring, and evaluation program for adaptive management (Step 7); identifies contingencies for consideration if management actions fail (Step 8); anticipates an oversight process for collaborative implementation, adaptive management, and dispute resolution (Step 9); and performs the jeopardy analysis of the Action Agencies' new proposed FCRPS action (Step 10). The rigorous schedule of this remand requires that several of these steps are conducted concurrently.

Step 1: Desired Status

Desired status of fish for recovery planning purposes can be expressed at two levels: biological viability necessary for delisting and broad-sense recovery necessary for ecological, cultural, and societal benefits. For the 2006 FCRPS BiOp, biological viability will serve as the reference point for desired status.

The determination of acceptable biological risk associated with the viability criteria for population, strata, and ESU viability will be explicitly described. Biological viability will be informed by criteria developed by the appropriate Technical Recovery Team (TRT) for each ESU. Criteria generally address population-specific abundance, productivity, spatial distribution, and diversity. Metrics will be identified to measure fish performance based on the viability attributes.

Step 2: Current Status

Current status of fish populations within each ESU will be assessed using products provided by the TRTs and coordinated with local recovery planning groups and State, Tribal, and Federal scientists. If TRT products are not available, State, Tribal, and Federal scientists coordinating with local recovery groups will provide the assessment. Current status will be assessed using the same metrics used to describe biological viability (desired status identified in Step 1).

Step 3: Gap Analysis

Current status of fish populations, strata, and ESUs (Step 2) will be compared to biological viability criteria (desired status identified in Step 1) to determine the gap, if any, between current and desired status. This gap analysis will use products provided by the TRTs or appropriate State, Tribal, and Federal scientists if TRT products are not available.

Step 4: Assessing Mortality Factors Contributing to the Gap

If current status falls below desired status, an assessment of the relative magnitude of mortality factors (e.g., habitat, hydro, harvest, hatcheries, predators, ocean conditions, etc.) will be performed collaboratively based on the best available scientific information and will consider reductions in mortality that have or will occur as a result of currently implemented management actions. Some mortality factors, such as mainstem hydro, predators, and harvest, may affect populations similarly within an ESU, whereas tributary habitat quality and hatcheries may be a mortality factor for some populations but not others. If available, TRT products will be used to aid the assessment. This assessment will help establish the relative expectation of the FCRPS for recovery.

Step 5: Federal Actions and Non-Federal Activities to Fill the Gap

The purpose of Step 5 is to identify and array a list of Federal actions (both those of the Action Agencies as well as those of other Federal agencies) and non-Federal (Tribal, State, local, and private) activities which have or can be relied on to fill the gap identified in Step 4. Steps 4 and 5 are likely to be iterative.

Federal management actions and non-Federal management activities will be displayed so that no double counting will occur. The list will be developed in collaboration with State, Tribal, and Federal sovereigns with appropriate technical and stakeholder input. Lists for non-FCRPS Federal agencies will require the concurrence of such agencies. In the selection of management actions and activities for the FCRPS, Participants in the collaborative process will consider impacts on other statutory obligations and the rights and interests of other parties, as well as multiple fish priorities, avoiding such impacts where possible and identifying strategies to potentially minimize or mitigate for such impacts.

Sub-Step 5A: Developing the FCRPS Action to be Consulted Upon

A suite of continuing and proposed management actions² to be taken by the Action Agencies associated with the configuration and the operation and maintenance of the FCRPS will be identified based on the assessment of the gap in an attempt to meet the relative expectation for the FCRPS in Step 4. The FCRPS management action will include proposed modifications to

²This analytic framework provides for Policy Working Group recognition that management actions may impact other rights, purposes, and uses related to the FCRPS. Consequently, the identification of management actions to fill the gap, including allocation to the FCRPS, will be consistent with the intent of the collaborative process to take such impacts into account.

the configuration of the system and the action of operating and maintaining the FCRPS hydro system, and may also include habitat, hatchery, and harvest actions to be undertaken by the Action Agencies under their existing authorities as “off-site mitigation” for the adverse impacts of the FCRPS on listed species (either as part of the proposed action or, if applicable, in the development of a Reasonable and Prudent Alternative [RPA] to the new proposed FCRPS action).

The actions which are developed in this sub-step will be the new proposed FCRPS action upon which the Action Agencies will consult for this remand. The action will include the discretionary and non-discretionary components of the FCRPS, and the effects of both components will be included in the “effects of the action” for the purposes of the jeopardy analysis in Step 10.

Sub-Step 5B: Array Actions by Federal Agencies Other Than the Action Agencies and Non-Federal Activities

Management actions identified in existing BiOps or undergoing Section 7 consultation by Federal agencies other than the Action Agencies (e.g., the Federal land management agencies) and non-Federal activities (i.e., activities carried out or funded by Tribal, State, local, and private parties) associated with other mortality factors (e.g., habitat, harvest, hatcheries, predators, etc.) will be accounted for in the jeopardy analysis of the Action Agencies new proposed FCRPS action (i.e., Sub-Step 5A) in accordance with Step 6.

Step 6: Certainty of Implementation and Effectiveness

Given the Endangered Species Act (ESA) regulations and the Court’s interpretation of certain aspects of those regulations, the “off-site mitigation” components of the FCRPS Action Agencies’ new proposed action, actions by Federal agencies other than the Action Agencies, and future non-Federal activities can be included in the jeopardy analysis of the new proposed action only if they are reasonably certain to occur (e.g., in the case of off-site mitigation actions by the Action Agencies and non-Federal activities) and provide the assumed biological benefits based on the best information available. For Federal agencies other than the FCRPS Action Agencies, actions can be counted that have completed or soon to be completed Section 7 consultations. Representatives of the Federal, State, and Tribal sovereigns, with the assistance of other entities as appropriate, will assess this biological effectiveness and feasibility/ certainty to occur as appropriate. In the case of non-FCRPS Federal agencies, the biological effectiveness and feasibility will be determined with the concurrence of the non-FCRPS Federal agencies and will be based on existing BiOps. The TRTs will assist in the assessment of biological effectiveness. Steps 5 and 6 will be iterative until a suite of Federal (Action Agencies and other Federal agencies) management actions and non-Federal (Tribal, State, local, and private) management activities are identified that have reasonable certainty of implementation and biological effectiveness based on the best available information.

In spite of this assessment, there will always be some uncertainty associated with the assumed efficacy of proposed Federal management actions and non-Federal management activities. To address this uncertainty, implemented Federal actions and non-Federal activities should be

coupled with rigorous monitoring and evaluation (Step 7) and contingency planning (Step 8). The FCRPS Proposed Action will include this “three-pronged approach” of implemented actions and activities, evaluation, and contingencies and will provide a structure for short- and long-term adaptive management to address uncertainty and to avoid jeopardy.

Step 7: Monitoring and Evaluation

A rigorous program for research, monitoring, and evaluation will be developed in collaboration with State, Tribal, and Federal scientists to address uncertainties, gauge success, and provide feedback for adaptive management by the FCRPS Action Agencies. This program will be reflected in the Action Agencies’ Proposed Action and the BiOp. The monitoring and evaluation program will incorporate a tiered design that complements monitoring necessary for evaluating recovery plans and the Northwest Power and Conservation Council (NPCC) Fish and Wildlife Program. The first tier will provide a backdrop for tracking fish performance (e.g., abundance, productivity, distribution, diversity, etc.) among representative populations within ESUs. The second tier will be nested within the first tier and focus on evaluating mortality among life stages and tracking fish survival associated with the hydrosystem experience and different routes of dam passage. The third tier will focus on evaluating specific management actions relative to appropriate performance standards (e.g., RSWs, predator management, habitat improvement, etc.).

Step 8: Emergencies and Contingencies

Short-term Emergencies

Sovereigns will also collaborate on a process for development of contingent alternative FCRPS management actions and protocols for interruptions or adjustments in water management actions for fish in response to declarations of power, flood control, or other emergencies. The process would address when such alternatives would be developed, how they would be evaluated for their likely biological effects, and what would trigger their implementation.

Long-term Contingencies

A process for periodic assessment and identification of contingent FCRPS alternative Federal management actions and non-Federal management activities will be developed collaboratively among Federal, State, and Tribal sovereigns. The process would address when alternatives would be developed, how they would be evaluated for feasibility and their likely biological effectiveness, and what would trigger their implementation (i.e., if the proposed action or RPA is not achieving the degree of effectiveness anticipated in the BiOp).

Step 9: Oversight

The Sovereigns will also collaborate on a transparent process for oversight of implementing the Action Agencies’ new proposed action (or RPA thereto), the monitoring and evaluation to be required by the new FCRPS BiOp, and the reasonable and prudent measures and terms and conditions in the BiOp’s incidental take statement. The oversight process would also address dispute resolution and tracking progress. This oversight framework will clearly identify the process for annual and in-season management of the FCRPS, including appropriate roles of

management partners (e.g., Federal action agencies, fish and wildlife managers, etc.). The oversight framework will also establish clear linkages to recovery plan development and implementation, the NPCC Fish and Wildlife Program and other management venues (e.g., US v. OR, etc.).

Step 10: Biological Opinion Regarding the Action Agencies' New Proposed Action

With Steps 5 and 6 completed and Steps 7-9 included in the Proposed Action, NOAA Fisheries can perform the Section 7(a)(2) jeopardy analysis of the Action Agencies' new proposed FCRPS action (resulting from Sub-Step 5A) and render a new Biological Opinion with the required incidental take statement. If the Action Agencies' new proposed FCRPS action is found to jeopardize the continued existence of listed species (or destroy or adversely modify designated critical habitat), then an RPA to the proposed action would be developed by NMFS as part of this step. NMFS intends to work collaboratively with the other Participants in developing such an alternative.

How the Conceptual Framework Addresses ESA Section 7 Requirements and Elements of the Judge's Orders

The legal framework for the jeopardy analysis of the Action Agencies' new proposed action will be that required by the ESA and by the implementing regulations, as those regulations were interpreted by the Court in its decisions of May 2003 and May 2005. The jeopardy determination will be made for each ESU. The jeopardy analysis will determine whether the effects of the Action Agencies' new proposed action (including the monitoring and evaluation, contingencies, and oversight components), when aggregated with effects of the actions and activities in the environmental baseline, and taking into account the cumulative effects of future non-Federal activities which are reasonably certain to occur, does or does not appreciably reduce the likelihood of survival and recovery of each listed ESU.

In relation to the conceptual framework for the remand process, the various elements of the Court's 2003 and 2005 opinions will be addressed as follows:

- *Ensure mitigation measures are reasonably certain to occur:* Step 6 addresses this by explicitly assessing the certainty of implementation and certainty of biological effectiveness.
- *Consider effects of proposed action on survival and recovery:* Steps 1, 3, 5, 6, and 7 address this by explicitly linking development and monitoring of the new proposed FCRPS action to viability criteria established through recovery planning for each affected ESU.
- *Aggregate ongoing impacts and impacts of proposed action:* Steps 4, 5, 6, and 7 address this by analyzing and assessing various mortality factors (Habitat, Hydro, Harvest, Hatcheries, etc.) and developing a suite of proposed management actions (FCRPS, non-FCRPS completed BiOPs, and other non-Federal activities) to ensure measures to mitigate the overall gap between the current status and desired status are identified either as part of the FCRPS Action Agencies' new proposed action, other Federal actions that are ongoing or have undergone any required consultation, or through non-Federal

activities that are reasonably certain to occur and therefore included in cumulative effects.

- *Include discretionary and nondiscretionary operations:* Steps 1, 4, 5A, and 6 address this by establishing the conservation responsibility of the FCRPS without differentiating between discretionary and nondiscretionary operations.
- *Consider element of recovery in critical habitat:* The collaborative process is beginning to discuss a method for evaluating adverse modification of critical habitat that is consistent with and complementary to the jeopardy analysis.