

**REMAND COLLABORATION STATUS UPDATE**  
**For the FCRPS 2006 Biological Opinion**  
**June 29, 2006**

As directed by the U.S. District Court in *NWF v. NMFS, et al.*, National Marine Fisheries Service (NMFS) is evaluating effects of operations of the Federal Columbia River Power System (FCRPS) on species listed pursuant to the Endangered Species Act (ESA). The FCRPS action agencies, through discussions in collaboration with sovereign entities, are developing items for inclusion in an All-H based proposed action (PA) that will be evaluated in a new BiOp.<sup>1</sup>

The discussions include NMFS, representatives of the defendant federal action agencies, Bonneville Power Administration, seven Columbia Basin tribes and four states. The scope and scale of the collaboration is intense and the cost of participation continues to pose significant challenges for many participants. As noted in our previous report, non-sovereign parties are observers in our technical group meetings. (Attachment 1)

The development of a PA and BiOp will be coordinated with broader recovery efforts and hopefully, will become a key part of the longer-term vision of having healthy and harvestable fish resources in the Columbia Basin consistent with federal responsibilities to tribes (including treaty and trust) and to others.

This update describes the status of the sovereign participants' collaborative process and provides additional detail on activities undertaken to complete Steps 1-9 of the 10-Step framework previously submitted to the Court:

- Steps 1-3: Recovery Goals, Current Status, and Gaps
- Step 4: Human-Caused Mortality Factors Contributing to the Gap
- Step 5: Federal Actions and Non-Federal Activities to Fill the Gap
- Step 6: All-H Integration and Certainty of Implementation & Effectiveness
- Step 7: Research, Monitoring and Evaluation
- Step 8: Contingencies
- Step 9: Governance

Step 10, work on the Biological Opinion will commence with the submission of the draft Proposed Action.

### **Steps 1-3: Recovery, Goals and Gaps**

The **Goals and Gaps Workgroup** is examining and compiling information on desired status (Step 1), current status (Step 2) and estimated survival gaps (Step 3) for each listed ESU. The workgroup has reviewed and referred to products from the Interior Columbia Technical Recovery Team (ICTRT) concerning viability goals and current status. The workgroup also

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<sup>1</sup> The references to a proposed action (PA) in this document should be read broadly to include actions as part of a potential reasonable and prudent alternative (RPA), as well as other federal and non-federal "All H" actions that will be considered in the baseline and cumulative effects.

considered information regarding estimates of gaps prepared by NOAA. Other sources include data, reports and analyses developed by the TRTs supporting NOAA's recovery planning, subbasin plans developed as part of the Northwest Power and Conservation Council's Fish and Wildlife Program, and information from tribal, state and local recovery planners who are working with NOAA in the development of ESU-based recovery plans.

Focusing on seven ESUs affected by the federal dams, the workgroup is developing overviews that describe long-term recovery goals and estimates of gaps and examining current fish abundance, productivity and viability. The seven ESUs include: Snake River spring/summer and fall chinook; Snake River sockeye; Snake River steelhead; upper Columbia River spring/summer chinook; upper Columbia River steelhead; and mid-Columbia River steelhead. Based upon these overviews and preliminary recovery materials provided by NOAA Fisheries, all seven of the ESUs exhibit estimates of survival gaps requiring short- and long-term improvements necessary to achieve recovery.<sup>2</sup>

In addition to describing desired status, current status and gaps, the ESU Overviews summarize key limiting factors (hydro, habitat, hatcheries and harvest) and are expected to identify preliminary, "high-priority" recovery strategies to help guide the policy discussions and technical assessments of specific actions proposed for the FCRPS PA, as well as conservation actions to address survival and for recovery.

The Goals and Gaps Workgroup has identified a number of issues for further discussion and consideration by the PWG and appropriate technical workgroups including:

- The role of listed hatchery fish and hatchery actions and reforms;
- Specific priorities for targeted actions within each ESU and basin wide;
- Progress over shorter term of the BiOp within the time frame for recovery;
- Varying levels of certainty in the available data, risk to the ESUs; and the range of variable assumptions in applying the goals/gaps information;
- The need to clarify how goals and gaps information will be used in the jeopardy analysis;
- Estimates of current status based on recent improvements in fish survivals that were not incorporated into the TRT estimates.

This workgroup is nearing completion of their tasks and will conclude their work in the next month. Some parties have raised a series of technical questions and comments regarding the TRT recovery planning materials and approach. At the suggestion of NOAA, these issues are being referred to the recovery planning process, a multi-year undertaking that is ongoing and independent of the remand with its own scientific and public process.

#### **Step 4: Human-Caused Mortality Factors Contributing to the Gap**

The **Framework Workgroup** estimated the relative magnitude of human-caused mortality factors influencing interior Columbia River salmon and steelhead populations, and completed the

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<sup>2</sup> The PWG acknowledges that FCRPS impacts on lower river ESUs will be addressed in the remand process.

interim Human Impacts report, which includes a range of estimates regarding the relative impacts of various sources of mortality.

The ranges for different factors used in this report reflect different opinions regarding interpretation of data or hypotheses, and the estimation methods attest to the wide range of uncertainty or data limitations that characterize the information considered. Should additional information become available regarding key uncertainties, e.g. hydro latent effects and hatchery effects, estimates of relative impacts will be updated.

As reported to the Court in April, there are significant disagreements regarding the magnitude of latent mortality associated with passage of inriver migrants through the FCRPS and mid-Columbia FERC dams, indirect harvest effects, indirect tributary habitat effects, and all effects of hatcheries. Workgroup members have been preparing detailed descriptions of the alternative assumptions regarding FCRPS hydro-related latent effects and indirect effects of other human-caused factors for consideration by the PWG.

## **Step 5: Federal Actions and Non-Federal Activities to fill the Gap**

### **Hydro**

A significant portion of PWG meetings has been dedicated to development of actions for inclusion in the PA and assessing and incorporating the best available scientific information in the collaborative process. The PWG has developed a Working Draft of Hydro Actions that describes potential actions in the hydro corridor to improve juvenile and adult survival. The PWG has had extensive discussions and reached general agreement on the following:

- The role of RSWs and surface bypass in improving dam passage survival;
- Draft criteria and protocols for Canadian operations including the management of the 1 MAF flow augmentation under the Columbia River Treaty and under what conditions to refill storage space required under the 1990 Non-Treaty Storage Agreement, and draft parameters for future long-term agreements for Non-Treaty storage;
- Potential predation actions to address fish, bird and sea lion predation;
- Review of water supply and stream flow forecasting methods through annual workshops;
- Annual progress reporting;
- An approach for in-season reporting for flows and velocity equivalent on a weekly basis;
- Potential actions to address adult fish passage.

Areas identified for additional discussion are outlined in the attached “Remand Key Hydro Issues” list, and include system flow management, reservoir operations, juvenile transportation actions, and spill operations. (Attachment 2)

The **Hydro Actions Workgroup** manages scenario development for system water management operations and configurations that potentially would be included in the PA, and provides coordination for hydro regulation modeling and fish passage modeling workgroups. The workgroup is managing a series of information papers, issue papers, and collaborative

discussions directed at resolving, or at minimum, clarifying issues so the best available scientific information is available in formulation of the hydro component of the PA.

The **Hydro Regulation Modeling Workgroup** has modeled seven scenarios, and subsequent analyses based on the hydro modeling outputs are underway. The analysis includes effects on energy production as well as various uses at storage projects including recreation, cultural resources and resident fish.<sup>3</sup>

Three requests for modeling additional scenarios, or modeling modifications of existing scenarios, have been made. All three requests were discussed extensively in the PWG. Consensus was not reached on how to handle two of the three requests. The Colville Tribes requested an iteration of “Scenario C” be modeled. The PWG agreed to have this work done by the hydro regulation modeling group. The Umatilla Tribes, by letter dated May 5, 2006, requested a scenario that includes spillway crest level reservoir operations at lower Snake River dams and John Day dam, and additional flow augmentation from the Upper Snake and Canada, among other components. The Yakama Nation supported this request. Also, by memorandum dated May 8, 2006, American Rivers requested the remand process evaluate a hydrosystem operation scenario that includes removal of the four lower Snake River dams among other components. The Yakama Nation, the Confederated Tribes of the Umatilla and the Nez Perce Tribes supported this request. In response to these two requests, the action agencies and NOAA Fisheries replied (by letters dated June 13, 2006 to the Confederated Tribes of the Umatilla and June 5, 2006 to American Rivers) that some of the components of the scenarios are incorporated in the existing scenarios, but dam removal and spillway level operation are not being evaluated.

The **Passage Modeling Workgroup**, (formerly Hydro Analysis) coordinates development of new passage modeling techniques, including the “Compass” model and alternatives to simulate downstream migration and survival of juvenile salmon through the reservoirs and dams (inriver and transport) to the estuary. The workgroup is also addressing mechanisms to model latent mortality hypotheses related to passage expressed outside of the hydrosystem.

Preliminary versions of the Compass model have been reviewed by the ISAB, which provided constructive suggestions to facilitate continued model development. These issues are being addressed and will be presented to the ISAB on June 30th for further review and discussions.

The workgroup has developed the capability to use BPA hydro regulation modeling output (50 year record) as input to the Compass model. Route specific passage and survival information is being assessed for accuracy. Several alternative hypotheses for estimating reservoir survivals are under development.

The Compass model and alternatives are being developed to assess a number of issues: the potential benefit of future management actions; structural and operational modifications to the FCRPS dams in the development of a PA; the likely magnitude of delayed mortality of smolts

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<sup>3</sup> The inflows to Brownlee were adjusted for the 2004 Base case and scenarios A-E to show operations of Reclamation's Upper Snake projects in accordance with the terms of the SRBA and the Nez Perce Agreement. Under the SRBA and Nez Perce Agreement, up to 487 kaf is provided for flow augmentation. Inflows to Brownlee in The 2000 Base case were based on provision of up to 427 kaf.

migrating inriver; survival of migrating smolts in reservoirs; the use of information from Snake River spring/summer chinook and steelhead as surrogates for other ESUs; the ability to model Snake River fall chinook salmon with complex juvenile life histories; and issues related to prioritization of modeling runs. Preliminary results are expected by the third week in July.

## **Habitat**

The **Habitat Workgroup** is working with tribal, state and local recovery planners to identify factors limiting abundance and productivity, as well as developing recommendations for actions that address such factors and that can be included in the PA as off-site mitigation. These recommendations, which will inform the region's broader recovery effort, include:

- Determining the primary limiting factors for each population in an affected area, as well as current conditions and actions proposed in recovery plans that address those factors; and
- Evaluating the effects of actions on the condition of the limiting factors and translating those effects into changes in population survival, with consideration to the remaining VSP parameters.

Recommended habitat actions will be arrayed in multi-year implementation schedules with specific goals by population, MPG and ESU. The group expects to complete a final draft product in early July for consideration by the PWG.

## **Hatcheries**

The **Hatchery & Harvest Workgroup** has identified hatchery actions that are expected to contribute to filling the biological gaps identified in Step 3. These actions include contributions and modifications of existing programs, as well as development of new programs which can be included in the PA as offsite mitigation while informing the region's broader recovery efforts. In addition, the workgroup will evaluate biological changes associated with specific actions, make recommendations regarding crediting strategies, and review the hatchery and harvest delayed mortality hypotheses.

The workgroup has compiled an inventory of current hatchery programs according to their effects (positive, negative, or neutral) on naturally-spawning populations. The group is developing-program-reform options that address relationships between hatchery activities included in the PA and legal mitigation agreements, treaty and trust responsibilities, settlement agreements, effects on harvest, and potential costs.

## **Harvest**

In April 2006, the **Hatchery and Harvest Workgroup** briefed the PWG regarding the inter-jurisdictional process, agreements, methods, and technical tools associated with managing harvest so the PWG has an appropriate frame of reference to consider harvest options in the All-H recovery effort.

The workgroup is developing and assessing alternative harvest management strategies, including implications for existing management processes. Activities have focused on development of a new fall chinook management framework as a priority (near-term) work product in the list of Columbia River fish management issues being addressed consistent with the District Court's order in *U.S. v. Oregon* and have been prioritized to meet the schedule of the remand collaboration process.<sup>4</sup> Also included in the final work product will be an assessment of data gaps and research needs to reduce uncertainty in harvest management and appropriate research, monitoring and evaluation to evaluate effectiveness of actions.

## **Step 6: Certainty of Implementation and Biological Effectiveness**

The **PWG's All-H, Goals and Certainty subgroup** is addressing the integration of the products from the technical workgroups and other sources, summarizing estimates of biological benefits, and compiling information on the certainty of implementation. Additionally, the group will help ensure consistency between goals, actions, and the analytic approach used to determine benefits and certainty and will provide guidance for other workgroups as directed by the PWG.

## **Step 7: Research, Monitoring and Evaluation**

The **RME Workgroup** is developing research, monitoring and evaluation elements for the PA. This effort will be coordinated and integrated with existing monitoring and evaluation programs in the region for the listed ESUs and other species.

The workgroup submitted a work plan to the PWG in May and is currently drafting RME recommendations, include: monitoring trends in ESU viability; tracking physical/biological impacts; and evaluating the effectiveness of the PA as implemented. The submittal of a draft RME plan to the PWG is expected at the end of July.

Based upon recommendations from the workgroup, the PWG will collaboratively determine and prioritize key RME elements within the FCRPS PA to track the status of listed ESUs, address key uncertainties, monitor implementation and compliance, and provide feedback for adaptive management.

## **Step 8: Contingencies**

The January 2006 status report included a description of Step 8. The PWG considered establishing a workgroup to address short-term emergencies and long-term contingencies and has deferred work in this area until September 2006 to allow for the full development of the PA and identification of areas that will require treatment.

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<sup>4</sup> U.S. v. Oregon residing Judge King has endorsed the parties prioritizing a fall chinook framework development to coordinate with the remand process.

## **Step 9: Oversight and Governance**

A subgroup of the PWG submitted a workplan for development of an oversight and governance framework that the PWG approved in May. The work plan calls for developing recommendations for establishing a collaborative, sovereign-based oversight approach for implementation of the PA, including provisions for RME, adaptive management and contingencies. It is anticipated that the implementation framework should also provide for clear, coordinated linkages between implementation of the PA and other regional, fish-related management programs, including ESA-recovery planning and implementation efforts, and will propose a dispute resolution process. The PWG subgroup anticipates having a draft proposal developed for full PWG consideration later this summer.

Note: The PWG is aware of the court's decision of May 23, 2006 regarding the Upper Snake BiOp and that further legal proceedings regarding that remand are underway.