

# **EXHIBIT A**

**REMAND COLLABORATION STATUS UPDATE**  
**For the FCRPS 2006 Biological Opinion**  
**March 31, 2006**

**1.0 Introduction**

As directed by the U.S. District Court, National Marine Fisheries Service (NMFS) will prepare a new Biological Opinion (BiOp) evaluating effects of operations of the Federal Columbia River Power System (FCRPS). In connection with this, the FCRPS action agencies are developing an All-H based proposed action (PA) that will be evaluated in a new BiOp that is legally and scientifically sound. In response to the Court's order, sovereign entities, including seven of the thirteen affected tribes participating in the *NWF v. NMFS*, et al., have designed and pursued a collaborative process organized around the 10-Step conceptual framework described in the Federal defendants' January 3, 2006, submittal to the Court.<sup>1</sup>

The Policy Work Group (PWG), a body made up of representatives from the sovereign entities participating in the collaboration process, has created several workgroups to undertake scientific reviews and address key technical questions.

The scope and scale of this collaboration is intense and the cost of participation poses a significant challenge to some non-Federal sovereigns. The PWG and a number of technical workgroups are meeting several days a week. Recently, the parties modified the collaboration process to allow non-sovereign parties' observers to attend technical workgroup meetings. (See **Attachment 1** hereto).

The sovereign participants hope the development of a PA and BiOp will be key parts of a broader salmon recovery effort that is needed for the Columbia Basin. This is part of a longer-term vision of having healthy and harvestable fish resources consistent with Federal responsibilities to tribes (including treaty and trust) and to others.

This document describes the status of the sovereign participants' collaborative process on Steps 1-7 of the 10-Step framework previously submitted to the Court.

Steps 1-3: Recovery Goals, Current Status, and Gaps  
Step 4: Human Impact Assessment  
Step 5: Hydro, Habitat and Hatchery/Harvest  
Step 6: Certainty of Implementation  
Step 7: Research, Monitoring and Evaluation

Steps 8-10 of the framework address short-term emergencies which are described in Step 5 (hydro actions), contingencies, oversight and work on a BiOp. Discussions regarding contingencies are expected to begin in May. Oversight discussions are also expected to begin in

---

<sup>1</sup> For a complete list of sovereign participants see Attachment 3 to Federal defendants' First Remand Report "2006 FCRPS BiOp: Conceptual Framework for the Remand Process Including the Jeopardy Analysis."

May and continue through the summer. Work on the Biological Opinion would commence with the submission of the draft Proposed Action.

### **Steps 1-3: Desired Status, Current Status and Analyses of Gaps**

**Task:** The desired status of the ESUs, current status and the gap analysis are based upon the Technical Recovery Team (TRT) reports and analyses developed for the National Oceanic Atmospheric Administration (NOAA) recovery planning, subbasin plans developed for the Northwest Power and Conservation Council, and materials developed by local recovery planners in Washington, Oregon, and Idaho. The focus has been on seven of the interior ESUs. Other Lower Columbia ESUs and populations of importance will be addressed before the end of May.

#### **Desired Status**

The workgroup has identified a number of issues to address, including: ESU level management goals; population level goals within each ESU; priority populations and recovery scenarios for each ESU, subject to adaptive management; and, if necessary once hatchery actions are developed, the role of hatcheries in relation to diversity criteria.

NOAA Fisheries has circulated a scenario matrix and a recovery scenarios options paper. These documents reflect population level goals derived from the work of the TRTs for establishing recovery goals. The workgroup is addressing preferred recovery scenarios, issues of ESU level management goals and the role of hatcheries in meeting diversity criteria. One challenge the group is addressing is that TRT and similar products being developed by local recovery planning groups are being revised and completion dates for final Interior TRT products are uncertain and not synchronized with the schedule for the completion of the BiOp remand process.

#### **Current Status**

The workgroup has identified the need to compile a summary of current status based on the TRT products, consider ways to address alternative temporal perspectives, clarify uncertainty of the data for each ESU, and separately identify the expected current status based on actions that have not yet shown up, e.g., in fish abundance and productivity.

NOAA Fisheries has prepared status maps and graphs for some ESUs showing spawning areas, abundance and productivity and current status for each population within the species. A draft document for six of the “interior” ESUs is in preparation.

#### **Gap Analysis**

The framework process compares the current status to desired status, addressing various assumptions based on TRT products and defining key limiting factors/threats for each ESU or population to focus conservation actions appropriately. The framework process will consider the extent to which the gaps may be filled through completed habitat, hatchery, harvest and hydro actions where benefits have not yet been reflected in current status. The process will also consider other Federal actions by non-FCRPS agencies that have completed consultation (which

will be included in the environmental baseline, consistent with the ESA regulations), as well as reasonably certain to occur non-Federal actions (which will be included in the analysis of “cumulative effects”).

NOAA has prepared tables, matrices and viability curves showing preliminary gaps for the workgroup to explore and discuss, key assumptions used in the analyses, and the role of these analyses in Steps 1-3 and Step 5.

## **Step 4: Factors Contributing to the Gap**

**Task:** Estimate the relative magnitude of human-caused mortality factors influencing interior Columbia River salmon and steelhead populations.

The **Framework Workgroup** is initially focusing upon six listed species in the interior Columbia basin, identifying relevant life stages and major human activities affecting survival in each life stage (distinguished from natural mortality rates) through a combination of direct estimates, temporal (before/after) or geographic (areas with/without) comparisons, and expert judgment. Significant disagreements about interpretation of data are represented as a range of relative mortality estimates.

The workgroup has prepared draft spreadsheets summarizing available information and assumptions for each ESU and produced a partial draft report and a variety of supporting materials. The draft report includes: a description of the process and methodologies used; preliminary results describing relative impacts of each major human-caused mortality factor for some of the six interior ESUs, including the range of possible impacts under alternative hypotheses; a list of citations and data sources used for the analyses; and a summary of unresolved issues, including delayed mortality associated with hydro, harvest, hatchery and habitat effects.

There remain significant disagreements regarding the magnitude of delayed mortality associated with passage of in-river migrants through the FCRPS and mid-Columbia FERC dams, in direct harvest effects, indirect tributary habitat effects, and all effects of hatcheries. The workgroup is continuing to discuss areas of disagreement and the range of uncertainty, as well as preparing descriptions of the rationale for alternative assumptions so that other appropriate workgroups and the PWG can review the support for each point of view and perform basic sensitivity analyses to help illustrate consequences on Step 4 work products.

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

### **A. Federal Hydro Actions**

**Task:** The January 3, 2006, Status Report to the Court<sup>2</sup> listed hydro system issues identified by the PWG for discussion in the collaboration process.

---

<sup>2</sup> See “Update on the Nature and Scope of the FCRPS Proposed Action” (Attachment 4 to the First Remand Report).

Additional hydrosystem issues subsequently identified by the PWG include: summer transport by truck vs. barge; early curtailment of summer spill; O&M activities; late fall/winter bypass operations for detection of Snake River fall Chinook; and lamprey passage.

The PWG established four workgroups to address hydro issues: the Hydro Actions Workgroup; the Hydro Regulation Modeling Workgroup; the Hydro Analysis Workgroup; and the Hydro Forecasting Subgroup. In addition, the PWG has been meeting to develop recommendations for hydro actions to be considered in a working draft of the Proposed Action.

The **Hydro Actions Workgroup** is organizing issues for resolution and developing alternative operations scenarios which are being reviewed by the PWG:

- Base Case 2000 analyzes the 2000 BiOp.
- Base Case 2004 analyzes the 2004 Updated Proposed Action and 2004 BiOp.
- Scenario A analyzes the combined effects of three proposed operations to modify summer flow augmentation operations at Libby, Hungry Horse, Dworshak and Grand Coulee dams, and juvenile bypass spill criteria as ordered by the Court for 2006 operations.
- Scenario B analyzes the effect of trying to operate U.S. Federal storage reservoirs to flood control upper rule curves beginning in January.
- Scenario C will analyze the effect of prioritizing use of storage for spring migrants over winter incubation flows for chum and Hanford Reach fall Chinook salmon in the driest 20th percentile water years.
- Future scenarios will analyze effects as they are introduced.

The PWG and the workgroup are also reviewing other hydro proposed actions including:

- continuation of the 2006 Court-ordered spill levels, and early curtailment of spill when 95 percent of fall Chinook juveniles have passed and future spill evaluations
- transportation programs similar to the planned 2006 operations, alternatives for spread-the-risk, triggers for initiation of transport, use of weekly SAR data, and use of trucks
- adult and juvenile passage improvements
- fish and avian predation in the mainstem.

The **Hydro Regulation Modeling Workgroup** is modeling alternative hydro system operations to enable review of physical effects of alternative hydro system operations, such as changes in average flows at different points in the FCRPS and changes in storage reservoir elevations. The

physical effects data will inform analyses of impacts to cultural resources, resident fish, recreation, power production, navigation, and other system purposes. In addition, the resulting spill and flow volumes from the hydro regulation scenario modeling will be used in the passage model for biological analysis.

The **Hydro Analysis Workgroup** is coordinating development of new passage modeling techniques to simulate downstream migration and survival of juvenile salmon through the reservoirs and dams (in-river and transport) to the estuary and latent mortality related to passage expressed outside of the hydrosystem which has the following capabilities: 1) realistic simulation of fish passage through the hydrosystem under variable river conditions; 2) allows users to simulate the effects of management actions; 3) operates on sub-seasonal time steps; 4) produces results in agreement with available data, particularly PIT-tag data; 5) produces an estimate of uncertainty associated with model results; and 6) estimates hydrosystem-related effects that occur outside of the hydrosystem.

The **Hydro Forecasting Workgroup** is developing an approach to improving Columbia Basin stream flow and water supply forecasting data and procedures. The workgroup proposed that a forecasting conference be conducted this spring to discuss current forecast procedures, work-in-progress, infrastructure needs such as gauging stations, climate signals and their impacts, and the relationship between the risk and uncertainty associated with water supply/stream flow forecasting and reservoir operations. The workgroup further proposed an annual forecasting review take place to assess lessons learned over the year for application to improving future forecasting.

Subject to further hydrological and biological evaluation, the PWG is developing recommendations for measures for the FCRPS Action Agencies to include in a working draft of the PA for water management, flow/velocity and temperature objectives, spill operations, surface passage improvements (RSWs, etc.), predation, adult passage, and transportation.

## **Habitat Actions**

**Task:** The **Habitat Workgroup** is developing recommendations for proposed actions to improve habitat conditions for threatened and endangered species and working with state and local recovery planners to identify limiting factors for abundance and productivity and actions to address such factors.

Habitat actions may be identified at the ESU, major population group, and population levels and actions specifically targeted to address priority limiting factors according to the key life stage(s) they affect and the priority species they address so there is a direct connection between habitat actions, limiting factors, and targeted fish populations.

The Columbia River Estuary (including the Columbia River mainstem below Bonneville) provides benefits for multiple ESU fish populations. The **Habitat Workgroup** will assess the relative benefit of habitat actions in the estuary, including those that address avian predation, for each ESU affected.

Salmon recovery planners are identifying limiting factors within each geographic area for each population and recommended actions to address such factors in Washington, under the auspices of the NOAA recovery planning process, and the subbasin planning entities in Oregon and Idaho (completed under the Northwest Power and Conservation Council's Fish and Wildlife Program), along with the Lower Columbia River Estuary Program. Acknowledging that one size does not fit all, each draft regional salmon recovery plan, subbasin plan, and estuary plan has used a different methodology in compiling the list of actions.

The **Habitat Workgroup** is categorizing actions by project types (e.g., setting and achieving instream flows), rather than specific projects (e.g., the purchase of several acres from a landowner). Recommended habitat actions are being arrayed in multi-year implementation schedules, with specific goals, such as miles of channel complexity restored or cubic feet per second of water returned to a stream by population, MPG and ESU. To the extent possible, this array identifies the specific implementation entity, the estimated cost and source of funding, the estimated biological benefits, and a monitoring and adaptive management strategy.

### **Hatchery & Harvest Actions**

**Task:** The **Hatchery & Harvest Workgroup** is identifying hatchery actions, including contributions and modifications of existing programs and development of new programs and harvest actions, including existing and alternative harvest strategies, that are expected to contribute to filling the biological gaps identified in Step 3.

The **Hatchery & Harvest Workgroup** is coordinating with the long-term settlement agreement negotiations in *U.S. v. Oregon* and developing an approach to work through the existing harvest management forums.

Draft hatchery and harvest work plans have been developed and technical work group meetings have begun.

For hatcheries, the workgroup is compiling an inventory of current programs according to their effects (positive, negative, or neutral) on naturally-spawning populations, development of program reform options relationship to legal mitigation agreements, treaty trust responsibilities, settlement agreements, effects on harvest, and funding sources.

For harvest, the work group will inventory and assess current harvest management and conservation strategies by species, as well as alternatives strategies that could assist in filling biological gaps. The workgroup will describe historical trends and current harvest rates, a breakout of where impacts occur, benefits associated with fisheries, *U.S. v. Oregon* harvest management plans and other agreements, as well as the domestic and international forums and processes involved in planning and implementation of decisions that impact Columbia basin ESUs.

The workgroup will also identify data and research needs that would help reduce uncertainty in harvest management decisions.

## **All-H Integration**

**Task:** The **All-H Integration Workgroup** is integrating products from the Hydro, Habitat and Hatchery/Harvest workgroups to estimate the separate and cumulative biological benefits of recommended proposed actions meeting the goals and gaps ESUs.

A common currency (e.g., the change in survival at any life stage) will be used to evaluate the total change in survival accrued from a suite of actions and the benefits to productivity and abundance. Overall changes to an ESU's distribution and diversity will also be considered and aggregated. In some instances the workgroup may estimate viability benefits based on the information provided by the Hydro, Habitat and Hatchery/Harvest workgroups.

The **All-H Integration Workgroup** will also use the information provided by Step 5 workgroups to evaluate the costs relative to expected results of each action recommended for the PA.

## **Other Federal and Non-Federal Actions**

For the additional cumulative effects task, specific documentation establishing the beneficial or negative effects of non-Federal actions will be developed. In general, these may include activities and programs that (a) have a beneficial effect, such as state-level salmon recovery plans and programs, and that (b) have a negative effect, such as loss of habitat. NOAA will assess the effects of existing section 7 consultations for non-FCRPS Federal agencies in the environmental baseline.

## **Step 6: Certainty of Implementation**

**Task:** For the hydro, habitat, hatcheries and harvest strategies identified in Step 5, the PWG will recommend general criteria that address reasonable certainty of implementation over the period of the PA and resulting BiOp as well as the biological effectiveness of these actions.

For the certainty of implementation assessment, the PWG is considering as one approach the following criteria for habitat, hatcheries, and harvest actions that address the ten-year FCRPS PA and resulting BiOp portion of the gap

1. The entity responsible for implementation of the action
2. Projected cost of the action and funding source
3. Schedule that lists the actions for the initial reporting period of the PA and resulting BiOp
4. A longer-term plan for the remainder of the PA and resulting BiOp
5. Expected biological benefits



6. A monitoring and reporting program to track whether the projects are on schedule and achieving the biological benefits expected.

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

**Task:** The **Research, Monitoring and Evaluation (RME) Workgroup** is developing a framework which is integrated with existing monitoring and evaluation programs.

The RME framework under development by the workgroup will address the following:

- performance standards and metrics;
- status and trend of listed ESUs relative to viability criteria;
- effectiveness of the FCRPS PA and resulting BiOp actions (e.g., hydro, hatchery, harvest, habitat), and conservation actions;
- critical assumptions and uncertainties associated with FCRPS impacts on listed fish; and
- efficiencies through coordination and integration with other local and regional RME programs.

## ATTACHMENT 1 JANUARY

MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
2 New Year's Holiday	3	4 Framework Small Group 9-4 PST	5 Policy Working Group: 9-3 PST	6
9	10 Framework Work Group 9 – 4 PST	11	12 Policy Working Group: 9-3 PST	13 PWG meeting with All Parties & All Columbia Basin Tribes, BPA rates hearing room. 9-12
16 Martin Luther King Holiday	17 Framework Work Group 9 – 3 PST	18 Policy Working Group: 9-3 PST	19	20
23	24 Framework Work Group 9 – 4 PST	25 PWG work plan subgroup	26 Policy Working Group: 9-3 PST	27 Policy Working Group: 9-3 PST
30	31 Framework Work Group 9 – 4 PST			

## FEBRUARY

MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
		1 <b>PWG meeting with All Parties &amp; All Columbia Basin Tribes, 9-12, Policy Working Group: 1-4 PST</b>	2 <b>Policy Working Group: 9-3 PST</b>	3
6 <b>Passage model (all groups) 12:30-5:00 PST</b>  <b>Forecasting Group 1-2 PST</b>	7 <b>Recovery work group 3-5 PST</b>	8 <b>Hydro Actions Workgroup</b>	9 <b>Policy Working Group: 9-3 PST</b> <b>Framework follow-up Q &amp; A for plaintiffs 12-1 PST</b> <b>Recovery gaps follow-up, at CRITFC 2-4 PST</b>	10
13	14	15 <b>Fall Chinook subgroup 9-12 PST,</b> <b>Recovery workgroup 1-5 PST</b> <i>(observers participated)</i>	16 <b>Policy Working Group: 9-3 PST</b>	17 <b>Policy Working Group: 9-12 PST</b>
20  <b><i>President's Day holiday</i></b>	21 <b>Habitat Workgroup 9-3 PST</b>	22 <b>Hydro actions &amp; hydro regs workgroups, 12-2 PST,</b>	23 <b>Policy Working Group: 9-3 PST</b> <b>Hydro regs call 9-11 PST</b>	24 <b>Framework group 9-11 PST conf. call</b> <i>(observers participated)</i>
27 <b>Passage model workgroup 12:30 – 5 PST</b> <i>(observers participated)</i> <b>Habitat workgroup 9-4</b> <i>(observers participated)</i>	28 <b>Recovery Workshop 9-4 PST</b> <i>(observers participated)</i>			

## MARCH

MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
		<p>1  <b>PWG water management</b>  <b>9-12 PST</b>  <b>Workplan mtg. 11-12 PST</b>  <b>Hatchery &amp; Harvest</b>  <b>workgroups, 1-4 PST</b>  <i>(observers participated)</i></p>	<p>2  <b>Policy Working Group:</b>  <b>9-4 PST</b>  <b>Recovery Workshop, 11-4</b>  <b>PST Wenatchee</b></p>	<p>3  <b>Framework workgroup, 9-4</b>  <b>PST</b>  <i>(observers participated)</i></p>
<p>6  <b>Habitat workgroup 9-4 PST</b>  <i>(observers participated)</i>  <b>Hydro actions workgroup</b>  <b>1-4 PST</b>  <i>(observers participated)</i>  <b>Hydro regs 3-4 PST</b></p>	<p>7  <b>RME workgroup, 9-3 PST</b>  <i>(observers participated)</i>  <b>Recovery Workshop, 10-3</b>  <b>MST, Boise</b>  <i>(observers participated)</i></p>	<p>8  <b>Workplan mtg. 11-12,</b>  <b>NOAA</b></p>	<p>9  <b>Policy Work Group:</b>  <b>9-4 PST, Spokane</b></p>	<p>10  <b>Hydro regs , 1-2 PST, call</b>  <b>Policy Work Group:</b>  <b>9-4 PST, Spokane,</b></p>
<p>13  <b>Habitat workgroup 9 -4</b>  <b>PST</b>  <i>(observers participated)</i></p>	<p>14  <b>Hydro regs call 1-2 PST</b></p>	<p>15  <b>Workplan mtg. 11-12,</b>  <b>Hatchery &amp; Harvest</b>  <b>workgroup, 1-4 PST</b>  <i>(observers participated)</i></p>	<p>16  <b>Policy Working Group 9-4</b>  <b>PST</b></p>	<p>17</p>
<p>20  <b>RME workgroup, 9-3 PST</b>  <i>(observers participated)</i></p>	<p>21  <b>Habitat workgroup 9-4 PST</b>  <i>(observers participated)</i>  <b>Framework workgroup, 9-4</b>  <b>PST</b>  <i>(observers participated)</i></p>	<p>22  <b>Workplan mtg. 11-12</b>  <b>Hatchery &amp; Harvest</b>  <b>workgroup, 1-4 PST</b>  <i>(observers participated)</i></p>	<p>23  <b>Policy Working Group:</b>  <b>9-4 PST</b></p>	<p>24</p>
<p>27</p>	<p>28  <b>Recovery Workgroup 9-12,</b>  <b>PST</b>  <i>(observers participated)</i></p>	<p>29 <b>Workplan mtg. 11-12,</b>  <b>PWG meeting with All</b>  <b>Parties &amp; All Columbia</b>  <b>Basin Tribes</b>  <b>Hydro regs 1-2 PST</b>  <b>Hatchery &amp; Harvest</b>  <b>workgroup, 1-4 PST</b>  <i>(observers participated)</i>  <b>Policy Working Group, 1-4</b></p>	<p>30  <b>Policy Working Group, 9-4</b>  <b>PST</b></p>	<p>31</p>

## APRIL

MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
<p>3 RME workgroup, 9-3 PST, Hydro regs call 2-3 pm PST</p>	<p>4 Habitat Workgroup, 9-4 PST Framework Workgroup 1-5 PST</p>	<p>5 Workplan mtg. 11-12, Hatchery &amp; Harvest workgroup, 1-4 PST</p>	<p>6 Policy Working Group, Boise 9-4 MST  Passage Model workgroup, 12:30-5 PST</p>	<p>7 Policy Working Group, Boise, 9-4 MST</p>
<p>10 Recovery Workgroup 9-3 PST</p>	<p>11 Habitat Workgroup, 9-4 PST Hydro Actions Workgroup, 9-4 PST</p>	<p>12 Workplan mtg. 11-12 Hatchery &amp; Harvest workgroup, 1-4 PST</p>	<p>13 PWG meeting, Whitefish, MT</p>	<p>14 PWG meeting, Whitefish, MT</p>
<p>17 RME workgroup, 9-3 PST</p>	<p>18 Policy Working Group 9-4 PST</p>	<p>19 Workplan mtg. 11-12, Hatchery &amp; Harvest workgroup, 1-4 PST</p>	<p>20  Habitat Workgroup, 9-4 PST Hydro Actions Workgroup 9-4 PST</p>	<p>21</p>
<p>24</p>	<p>25 Habitat Workgroup, 9-4 PST Hydro Actions Workgroup, TBD</p>	<p>26 Workplan mtg. 11-12, NOAA  (Note: PWG meeting with All Parties &amp; All Columbia Basin Tribes being re- scheduled)</p>	<p>27 Policy Working Group 9-4 PST</p>	<p>28</p>