

FY 2008-2009 F&W Program Accords (MOA) Proposal Review

Narrative

Table 1. Proposal Metadata

Project Number	2009-002-00
Proposer	Bob Rose; Yakama Nation Fisheries Resources Program
Short Description	A Status and Trend Annual Report (STAR) Coordinator will use this 10-month contract period to develop a long-term framework for annually reporting habitat protection, restoration and monitoring actions and results associated with the 2008 FCRPS BiOp and the NPCC Fish and Wildlife Program. The STAR Coordinator will work closely and in collaboration with the Upper Columbia Salmon Recovery Board, Washington State Salmon Recovery Office, NOAA Fisheries and other fisheries resource managers.
Province(s)	Columbia Cascade Province
Subbasin(s)	Wenatchee, Entiat, Methow
Contact Name	Bob Rose
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A. Abstract

Goal: The long-term goal of the Status and Trend Annual Report project is to support mitigation described in the 2008 FCRPS Biological Opinion and the obligations of the NPCC Fish and Wildlife Program by annually reporting progress towards salmon recovery efforts relevant to the Columbia Cascade Province and within the Ceded Lands of the Yakama Nation. This work will be in coordination with, and will support other local and regional efforts including but not limited to Upper Columbia Salmon Recovery Board, the State of Washington, NOAA Fisheries, U.S. Fish and Wildlife Service, BPA and the NPCC Columbia Basin Fish and Wildlife Program.

During the initial contract period (through February, 2010) of this Project the primary activities will involve planning, local and regional coordination and development of an efficient and collaborative framework with the local and regional interests listed above. The product will include a comprehensive "Table of Contents" for the future Status and Trends Annual Reports (STAR) and a detailed technical report describing the ways and means for producing the STAR. This report will serve as the technical basis to develop longer-term Program Objectives and Work Elements which will underlay future BPA – Yakama Nation contracting obligations. This report will also serve as a more technical and specific updated Proposal Review (Narrative), which will again be submitted to the ISRP at an appropriate time.

It is envisioned the STAR will initially focus reporting on progress in habitat implementation and monitoring at the stream reach (estimated 2-15 kilometers) and watershed scale (corresponding to the NPCC Subbasin Plan Assessment Units) within the Methow, Entiat and Wenatchee subbasins. The Yakama Nation will coordinate closely with the Colville Confederated Tribes (through the existing Upper Columbia Salmon Recovery Board framework) with an interest in including restoration and monitoring progress in the Okanogan subbasin as well. This work is designed to complement the 2008 FCRPS BiOp in describing habitat conditions, using Primary Limiting Factors reported at the Assessment Unit geographic scale identified in the NPCC Subbasin Plans,

in terms of improvements towards habitat functionality. as described in the FCRPS BiOp, changes in habitat functionality correlate directly to assumed changes to juvenile salmonid productivity (RPA 34 and RPA 35; Biological Assessment, Appendix B.2.2.2, Attachment B.2.2-1, August 2007). The intended primary audience for this Status and Trend Annual Report is the Yakama Nation Tribal Council, the Upper Columbia Salmon Recovery Board and the Bonneville Power Administration. These assessments are intended to be used as an important component of annual adaptive management discussions and related BiOp progress reports, although the distribution and collaboration of this work is intended go well beyond these interests.

B. Problem statement: technical and/or scientific background

With the 2004 Subbasin Plans, the Columbia Cascade Province has clearly provided up-to-date Assessments, Visions for habitat improvements, watershed specific objectives and associated strategies and defined many needed projects and activities to achieve these stated objectives. At this time, comprehensive monitoring and evaluation strategies are being developed within each of the Columbia Cascade Province subbasins for both habitat actions and artificial production programs to measure how activities singularly and synergistically are contributing towards long-term salmon restoration. However, beyond the inherent needs of a comprehensive monitoring and evaluation strategy is the need to adequately and appropriately report this information in a manner that is accessible and useful to the general lay public, to decision makers and the scientific community. Such a report will be invaluable to support local and regional interests in both adaptive management and in documenting progress and accountability of obligations. Without a well defined and periodic reporting tool, one is left wondering what information would be used to drive an effective adaptive management process. The STAR will specifically describe: 1) the Primary Limiting Factors at the watershed scale, 2) specific actions either being implemented or being planned that will address those limiting factors, 3) expected (and measured) habitat changes at the stream-reach scale, 4) methods data for measuring these changes, 5) analysis process for drawing conclusions and, as appropriate, 6) estimated changes in biologic productivity. This information will be primarily developed through the existing work undertaken by the Upper Columbia Salmon Recovery Board.

Development of a Status and Trend will not be an easy undertaking. There are many habitat and biologic characteristics to be considered and the manner in which this information is presented (formats and consistency, for example) will be just as important as the substance and body of information. Many details of the reporting scope are not yet determined, that will be the responsibility of the STAR Coordinator during this initial contract period. However the foundation of the STAR will be the Primary Limiting Factors (PLFs), identified in the 2004 NPCC Subbasin Plans, at the Assessment Unit scale (consistent with reporting units in the 2008 BiOp). It is reasonable to expect that at this scale, cumulative changes in PLFs would provide the basis for estimating potential or observable changes in habitat function (as estimated in the 2008 FCRPS BiOp). Trends in biologic attributes are better described at a larger geographic scale, say for example at the subbasin scale (or population scale in the case of the Upper Columbia populations). In this case, different monitoring tools (screw trap and redd count information, for example) would be used to address a different set of questions. A third geographic scale should also be considered, that of the entire Province – or Evolutionary Significant Unit (spring Chinook) and Distinct Population Segment (steelhead). Identifying key and appropriate questions for each of these scales, and the appropriate timeframes when specific questions could realistically be addressed is also a primary function of the STAR and will require considerable time and coordination to be successfully accomplished.

To be clear, the Yakama Nation is aware of and appreciates reporting efforts by the Columbia Basin Fish and Wildlife Authority (<http://www.cbfgwa.org/sotr/>), State of Washington Governors Salmon Recovery Office (<http://www.governor.wa.gov/gdro/publications/sosreport/default.asp>) and the Pacific Coast Salmon Recovery Fund Reports to Congress (<http://www.nwr.noaa.gov/Salmon-Recovery-Planning/PCSRF/PCSRF-Documents.cfm>) for providing reports of actions and progress in salmon recovery. However, these reports are very broad in nature and do not address the need to track activities and report on progress on a smaller scale in a manner that is useful for local adaptive management. Once these more locally oriented reports are available (through the STAR), and through careful collaboration with these regional reporting efforts, resource managers will have greater ability to relate large scale trends to local actions funded through the NPCC Fish and Wildlife Program and Fish Accords.

C. Rationale and significance to regional programs

With the recent Columbia Basin Fish Accords, approximately six million dollars per year are allocated to the Yakama Nation Fisheries Resources Program towards habitat protection and restoration of salmonid tributary habitat in the Methow, Entiat and Wenatchee subbasins of the Columbia Cascade Province. These allocations are in addition to, and are expected to be cost-shared with other funding sources from the State, federal and tribal resources as well as from the Mid-Columbia Public Utility Districts (Douglas, Chelan and Grant County PUDs). Measurable changes to habitat conditions are expected to boost productivity and spatial structure of ESA listed salmonids as well as other salmonid species. In addition, other important activities benefiting salmonid passage through hydroelectric projects and reservoirs are planned within Federal Columbia River Power System and Mid-Columbia PUD hydro-electric Projects as well as improvements associated with artificial production methods and facilities within these subbasins.

Within the **3 Treaty Tribes – Action Agency Agreement (April 4, 2008)** “*The Action Agencies acknowledge that the Tribes’ ability to monitor and verify performance of the FCRPS under the BiOps is essential to their participation in this MOA, and the Action Agencies support such monitoring and verification and will so state in any forum*” (Section D, Page 5). This Agreement also states in **Section C. General Provisions For All Projects**:

- **C.2.** For BPA funded commitments, the Tribes will report results annually (including ongoing agreed upon monitoring and evaluation) via PISCES and/or other appropriate databases.
- **C.3.** For non-hatchery projects identified as providing benefits to listed ESA fish, the Tribes shall:
 - Provide estimated habitat quality improvement and survival benefits from the project (or suite of projects) to a population or populations of listed salmon and steelhead based on key limiting factors;
 - Refine the estimates during the course of the Agreement if it appears benefits may significantly deviate from the original estimates; and
 - Support these estimates of habitat improvement and survival benefits in appropriate forums.
- **C.5.** The Parties will coordinate their RM&E projects with each other and with regional RM&E processes (particularly those needed to ensure consistency with the FCRPS BiOp RM&E framework), as appropriate and agreed to among the Parties.

The language in the Fish Accords clearly recognizes and establishes the need for periodic reporting of habitat actions and monitoring results. Under Section C3, the Yakama Nations requirement for estimating habitat benefits and associated biological responses will be a

substantial undertaking and clear documentation supporting these estimates is self-evident. The Yakama Nation is responsible for assuring allocated resources will result in on-the-ground changes, as envisioned in the 2008 FCRPS BiOp. Therefore, we also have an interest in tracking other factors, such as institutional barriers (permitting, for example) so that through the adaptive management process the Yakama Nation can bring to the BPA, the Upper Columbia Salmon Recovery Board and other relevant entities clear documentation of problems in implementation so as to be remedied in a timely manner. These and other considerations are fundamental in the development of the STAR.

Each of the 2004 Wenatchee, Entiat and Methow Subbasin Plans recognize as a part of the overarching Management Plan vision the need for adaptive management and citizen involvement. Working at the local level with established citizen groups and employing well defined monitoring strategies and long-term adaptive management is a central theme found in these subbasin plans. But since 2004, tremendous progress has been made both scientifically and with public involvement through the Upper Columbia Salmon Recovery Board (UCSRB). With the recent development and adoption of the Upper Columbia Salmon Recovery Plan (located on the web at <http://www.ucsrb.com/>) substantial progress has been made in this Province in refining organizational roles, responsibilities, citizen and scientific workgroups, implementation schedules, monitoring strategies and adaptive management practices. The Yakama Nation is one of five members on this Board (including the Colville Tribes and Chelan, Okanogan and Douglas Counties). It is evident resources from the Fish Accords will substantially advance the interests of the Upper Columbia associated with the FCRPS BiOp and both the NPCC Subbasin Plans and the Salmon Recovery Plan. The STAR is intended to provide the basis of information supporting estimates in habitat improvement and associated salmonid productivity, as envisioned in RPA 34 and 35, and to be the primary reporting instrument for progress towards objectives outlined in the Fish Accords and the Subbasin Plans and will strongly complement other efforts, especially those pertaining to the Upper Columbia Salmon Recovery Plan.

D. Relationships to other projects

Considerable NPCC Fish and Wildlife Program habitat restoration investments (in addition to future Fish Accord funding) have been or are currently being implemented in the Columbia Cascade Province. There are other significant funding sources available and routinely used in the Columbia Cascade Province, including but not limited to the Mid-Columbia PUD Settlement Agreements / HCPs, Washington State Salmon Recovery Funding Board, USFWS Community Salmon Funding Board, Pacific Coast Salmon Recovery Funds and others. Project development and funding is becoming closely coordinated through the UCSRB, local subbasin citizen groups, the Upper Columbia Regional Technical Team and extensive efforts provided by the State, Federal and Tribal fisheries agencies. Projects funded through BPA and identified in the BPA PISCES database are listed below in Table 2. At this time there is not a comprehensive list of other recent and/or ongoing actions within the Columbia Basin Province although it is envisioned with the STAR, this information and related technical details will be readily available.

Table 2. Relationship to existing projects

Funding Source	Project #	Project Title	Relationship (brief)
BPA	2007-283-00	UPA Wenatchee Subbasin Access	Each of these projects, objectives, monitoring results
BPA	2007-400-00	Wenatchee Basinwide Passage	

Funding Source	Project #	Project Title	Relationship (brief)
BPA	2007-325-00	UPA Wenatchee Complexity	and estimated contributions to changes in Primary Limiting Factors and habitat conditions, as well as others implemented through the Fish Accords, will be included in future Status and Trend Annual Reports.
BPA	2007-085-00	UPA Nason Creek Oxbow	
BPA	2007-042-00	UPA Wenatchee Program	
BPA	2007-086-00	UPA Wenatchee Riparian	
BPA	2007-318-00	UPA Knapp-Wham Hanan Detwiler	
BPA	2007-231-00	Entiat Riparian	
BPA	2000-002-00	Remove Barriers/Restore Habitat	
BPA	2005-004-00	Whitehall Wells	
BPA	2005-003-00	Entiat Four-Mile Wells	
BPA	2007-054-00	Entiat River-UPA-Stillwater	
BPA	2005-007-00	Fulton Diversion	
BPA	2005-008-00	Chewuch Diversion	
BPA	2007-172-00	UPA Project – MVID West Canal	
BPA	2007-214-00	UPA Fender Mill Floodplain	
BPA	2007-264-00	UPA Methow Complexity	
BPA	2007-251-00	UPA MVID East	
BPA	2007-035-00	UPA Methow Riparian Enhancement	
BPA	2007-037-00	Elbow Coulee Restoration	
BPA	2005-009-00	Twisp Side Channel	
BPA	2005-010-00	Macpherson Side Channel	

In addition to the activities mentioned above, it is useful to mention ongoing and significant monitoring efforts that will be integral with the STAR, which includes the Integrated Status and Effectiveness Monitoring Program (ISEMP) and the Intensively Monitored Watershed (IMW) program. In addition, the Colville Tribes are currently implementing the Okanogan Basin Monitoring and Evaluation Program. It is important to note that the Yakama Nation and Colville Tribes have not yet discussed a collaborative approach in the development of the STAR, but these discussions are intended to occur once the STAR Coordinator has been hired and oriented to the position, presumably over the next 6-12 months.

The Integrated Status and Effectiveness Monitoring Program (ISEMP, Bonneville Power Administration project #2003-0017) was created as a cost effective means of developing protocols and new technologies, novel indicators, sample designs, analytical, data management and communication tools and skills, and restoration experiments. In addition to monitoring salmon and steelhead populations and habitat within pilot basins, ISEMP is designed to test the robustness of monitoring protocols, indicator metrics, and sampling designs currently used in monitoring programs. ISEMP plans to develop tools to facilitate effective data analysis, management and communication. ISEMP is active in the Wenatchee and Entiat Subbasins and is currently being developed and proposed for the Methow subbasin as well. The STAR is intended to support and to be a logical extension of the ISEM Program.

The Intensively Monitored Watershed project is a joint effort of the Washington Departments of Fish and Wildlife and Ecology, NOAA Fisheries, EPA, Lower Elwha Klallam Tribe and Weyerhaeuser Company and is financially supported by the Washington Salmon Recovery Funding Board. The premise of the IMW project is that the complex relationships controlling salmon response to habitat conditions can best be understood by concentrating monitoring and research efforts at a few locations. In the Upper Columbia the IMWs include the Nason, Peshastin and Chiwawa watersheds in the Wenatchee Subbasin, the lower Entiat River, and Libby, Gold and Beaver watersheds in the Methow Subbasin.

The Upper Columbia Regional Technical Team and Upper Columbia Salmon Recovery Board have designed a monitoring effort for the Upper Columbia Basin which addresses the following basic questions:

- What are the current habitat conditions and abundance, distribution, life-stage survival, and age-composition of fish in the Upper Columbia Basin?
- How do these factors change over time ?
- What effects do tributary habitat actions have on fish populations and habitat conditions ?

The monitoring strategy is designed to address these questions and at the same time eliminate duplication of work, reduce costs, and increase monitoring efficiency by coordinating current monitoring efforts conducted by the U.S. Forest Service, U.S. Fish & Wildlife Service, Washington Departments of Fish and Wildlife, and Ecology, Chelan County, and Chelan County Public Utility District. The coordination is overseen by NOAA Fisheries. The Wenatchee River is represented on the IMW Scientific Oversight Committee to ensure close cooperation and information flow among the various IMW efforts. This work is currently expanding into the Methow subbasin through the coordinated efforts of the Bureau of Reclamation and the Methow Recovery Council, which is a consortium of local, state, federal and tribal agencies and citizens involved with salmonid habitat restoration. Monitoring and reporting metrics used in the Upper Columbia are consistent with implementation and effectiveness monitoring metrics for habitat

projects described in the ISRP 2006 Retrospective Report (ISRP 2007-1) and will be the basis for reporting through the STAR.

Okanogan Basin Monitoring and Evaluation Program, Colville Tribes. This program began in 2003 and provides comprehensive research by collecting and evaluating data on a system-wide basis in support of salmon recovery. This monitoring plan requires a long-term commitment as most outcomes will not be realized for 7 to 20+ years. This project is designed to ultimately answer these questions:

1. What are the current habitat conditions and abundance, distribution, life-stage survival, and age-composition of anadromous fish in the Okanogan River Basin (status monitoring)?
2. How do the above factors change over time (trend monitoring)?
3. Are tributary habitat actions effective for increasing fish populations and improving habitat conditions (baseline effectiveness monitoring)?
4. What is the cumulative effect of watershed management actions on fish populations (effectiveness monitoring)?

The plan is designed to address these questions and at the same time eliminate duplication of work, reduce costs, and increase monitoring efficiency. The implementation of valid statistical designs, probabilistic sampling, standardized data collection protocols, consistent data reporting methods, and selection of sensitive indicators will increase monitoring efficiency.

Additionally, the Yakama Nation recognizes the Columbia Basin Fish and Wildlife Authority; *State of the Resources Report* and the State of Washington; *State of the Salmon Watersheds Report*. We envision close coordination with these entities as well in the development of the STAR to support each others efforts to find ways to gain efficiencies, to provided additional details and improved reporting accuracy and to reduce potential for redundancy.

E. Project history (for ongoing projects)

This is a new project under the Fish Accords.

F. Proposal biological/physical objectives, work elements, methods, and metrics

Objectives: Over the first 10-months of the intended long-term contract (2009-2017) the primary objectives for work to be initiated include:

- Establish professional networks at both regional and local levels and initiate discussions focused on development of an annual status and trend report. The STAR Coordinator will inventory and identify data resources and data gaps, coordination of efforts to increase efficiency and reduce potential redundancy, and identify ways and means for long-term sharing of information. Much of this work is ongoing through the Upper Columbia Salmon Recovery Board.
- Provide a clear and specific description and rationale of the proposed document contents (Table of Contents), presentation formats and analysis methods. Describe how these materials provide useful information to various local and regional audiences and develop and participate in processes to allow for stakeholder input.
- Identify entities and/or data portals where information contained in the annual report will come from and where it will be stored and publicly accessible.

In year 2 of this effort the Yakama Nation intends to produce the first Status and Trend Annual Report. Throughout the following 3-5 years, as we develop experience and infrastructure, the Yakama Nation intends to expand this reporting effort to the entire Yakama Nation Ceded Lands

(YNCLs). These later reports will address and integrate all four “H’s (habitat, hydro, hatchery and harvest) as is practicable.

The Yakama Nation recognizes the likely interest of the ISRP and others to more clearly describe exactly what these reports would entail, but that level of specificity is not available at this time.

Funding for the STAR will support a full-time position (the STAR Coordinator) to facilitate and manage this undertaking, first through coordination with other relevant regional and local entities. These entities will include (but are not limited to) the Upper Columbia Salmon Recovery Board, State of Washington Governors Salmon Recovery Office, Columbia Basin Fish and Wildlife Authority, Bonneville Power Administration, NOAA Fisheries, U.S. Fish and Wildlife Service and the Columbia River Inter-Tribal Fish Commission. It is envisioned that a Draft Status and Trend Annual Report would be produced and made available to the public for comments in January of each year, with the intent to produce a Final report the following April.

Work elements (tasks), methods, and metrics.

The following Work Elements come directly from the PISCES project management software used by BPA. These detailed Work Elements are intended to cover only the initial contract period extending into February, 2010. Future objectives and associated timelines will be developed by the STAR Coordinator in coordination with other regional and local entities in a manner that is consistent with their needs and contribution of resources to support development of the Status and Trend Annual Report.

B: 189: Regional Coordination

Title Description	Participate in regional efforts.
Deliverable Specification	Initiate and participate in local and regional efforts focused on development of STAR Table of Contents and describe the technical and institutional infrastructure available and needed to support annual status and trend reports.

Milestone Title	Start Date	End Date	Status	Milestone Description
Key Participate Identification; Process Local Consensus	5/1/09	7/30/09	Inactive	Identify key agency and entity participants and formulate general agreement to process strategy and general products associated with the development of an annual status and trend report.
Process Outline	7/1/09	8/30/10	Inactive	Provide documentation of a process framework that will achieve development of a STAR Table of Contents and associated material contents and formats.
Local and Regional Participation	5/1/09	4/30/10	Inactive	STAR Coordinator and Evaluation and Reporting Coordinator continued participation in local and regional processes associate with M&E and various reporting efforts and needs.

C: 174: Produce Plan

Title Description	Develop and Distribute STAR Table of Contents
Deliverable Specification	Provide to relevant local and regional agencies and entities a detailed Table of Contents and related narrative documents intended to outline future Status and Trend Annual Reports, a detailed summary of a coordinated process in which future documents are produced and means in which information is stored and shared between interested users.

Milestone Title	Start Date	End Date	Status	Milestone Description
Define Limiting Factors for each subbasin	6/1/2009	7/31/2009	Inactive	Using NPCC Subbasin Plans, Upper Columbia Salmon Recovery Plans and other relevant documents, identify Primary Limiting Factors that will be tracked for each watershed in each Upper Columbia Subbasin.
Inventory existing data sets and monitoring efforts	6/1/2009	10/21/2009	Inactive	Describe key data and information (narrative, spatial, etc) summary formats potentially useful for inclusion in future status and trend reports. Identify and summarize key information needs and availability directly associated with identified Primary Limiting Factors.
Identify existing data gaps in monitoring limiting factors	6/1/2009	11/6/2009	Inactive	Identify information (and appropriate protocols) that is not being collected directly associated with identified Primary Limiting Factors within each watershed.
Develop process for incorporating existing data sets into STAR	9/1/2009	12/18/2009	Inactive	Work with local and regional database managers to develop means for summarizing and storing relevant data and information.
Develop and Distribute STAR Table of Contents	1/1/2010	2/19/2010	Inactive	Provide Draft STAR Table of Contents to stakeholders, provide review and comment period. Development of Final Proposed STAR Table of Contents that will be used in subsequent Reports
Provide Final	9/1/2009	12/18/2009	Inactive	Provide final products to BPA

Table of Contents and upload into PISCES				and upload into the PISCES database.
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G. Monitoring and evaluation

Monitoring and evaluation of this program will occur on an annual basis primarily in the form of routine comments and critique of Draft Annual Reports. Edits from these comments will be incorporated in the Final Annual Reports. It should also be noted that one of the primary functions of the Status and Trend Annual Report is not only to report on current monitoring efforts but also to evaluate the adequacy of existing monitoring efforts and the effectiveness of habitat restoration and other salmon recovery actions. The Yakama Nation envisions these evaluations will occur under the purview of the Upper Columbia Regional Technical Team.

H. Facilities and equipment

The Status and Trend Annual Report Coordinator will likely be staffed at the main Yakama Nation Fisheries Resource Program facilities in Toppenish, Washington. Beyond routine office equipment and transportation, no special facilities or equipment is envisioned for this contract period.

I. References

No references cited.

J. Key personnel

Steve Parker: Yakama Nation Fisheries Resource Technical Coordinator
 Bob Rose: Yakama Nation Fisheries Resource Hydro Coordinator
 Debbie Azure: Yakama Nation Fisheries Resource Administrative Director