

## Proposal Summary

This page provides a read-only view of a Proposal. The sections below are organized to help review teams quickly and accurately review a proposal and therefore may not be in the same order as the proposal information is entered.

### Proposal RESCAT-1989-062-01 - Program Coordination and Facilitation Services provided through the Columbia Basin Fish and Wildlife Foundation (Foundation) Project Number: 1989-062-01

| Basics                      |   |
|-----------------------------|---|
| Proposal Number:            | RESCAT-1989-062-01  |
| Proposal Status:            | ISRP - Pending First Review   |
| Review:                     | <a href="#">Resident Fish, Regional Coordination, and Data Management Categorical Review</a>  |
| Portfolio:                  | <a href="#">Resident Fish, Regional Coordination, and Data Management Categorical Review</a>  |
| Type:                       | Existing Project: <a href="#">1989-062-01</a>   |
| Primary Contact:            | <a href="#">Tom Iverson</a>   |
| Created:                    | 10/6/2011 by <a href="#">Neil Ward</a>  |
| Proponent Organizations:    | Columbia Basin Fish and Wildlife Authority (CBFWA)  |
| Project Title:              | Program Coordination and Facilitation Services provided through the Columbia Basin Fish and Wildlife Foundation (Foundation)  |
| Proposal Short Description: | Continue to provide coordination, facilitation, and collaboration services through seven focus workgroups that support key adaptive management products and processes identified in the Northwest Power and Conservation Council's 2009 Fish and Wildlife Program. Workgroups coordinated through the Foundation include: 1) Status of the Resources (SOTR), 2) Anadromous Fish, 3) Resident Fish, 4) Wildlife, 5) Lamprey, 6) Fish Screen Oversight, and 7) Columbia Basin Fish and Wildlife Authority.  |
| Proposal Executive Summary: | <p>Primary goal of your work?</p> <p>The primary goal for each of the focus workgroups is to continue to provide coordination and facilitation services that allow tribal, state, and federal fish and wildlife managers, Bonneville Power Administration (BPA) staff, and the Northwest Power and Conservation Council (NPCC) staff to collaborate towards the efficient and cost effective development of recommendations and adaptive management products for implementing the key coordination elements identified in the NPCC's 2009 Program (NPCC 2009-09). Areas of focus for Fiscal Years 2013-2015 include coordinating and facilitating the:</p> <ul style="list-style-type: none"> <li>• Maintenance of the Status of the Resources (SOTR) website to continue to support project- and Program-level evaluations and provide public outreach</li> <li>• Development of research, monitoring, and evaluation (RM&amp;E) implementation strategies for anadromous fish, resident fish, and wildlife to help prioritize monitoring efforts and support cost-effective and efficient RM&amp;E for the BPA funded Program, as well as, other monitoring Programs in the Basin</li> <li>• Development of coordinated Program amendment recommendations by the agencies and tribes that better define biological objectives and performance standards for the Program</li> <li>• Discussions about resident fish loss assessments and wildlife operational losses to better understand mitigation responsibilities</li> <li>• Project sponsors' involvement in providing feedback and input into the BPA and NPCC processes to ensure efficiency in their interactions with PISCES, TAURUS, and project reviews</li> </ul> <p>Why the work is important?</p> <p>In the 2009 Program the NPCC acknowledged that it benefits from the coordinated efforts of many groups, committees, and organizations in implementing its Program. The Northwest Power Act (Act) calls for meaningful involvement by the fish and wildlife agencies and tribes. Since 1995, the Columbia Basin Fish and Wildlife Foundation (Foundation) has been providing coordination services to support collaboration among the co-managers and between the co-managers, BPA, and NPCC.</p> <p>In 2010, the NPCC developed the draft Monitoring, Evaluation, Research and Reporting (MERR) Plan to partially meet its responsibility under the Act as well as to address the NPCC's 2009 Program's call to: 1) conduct scientific review of new and ongoing actions, 2) establish reporting guidelines to increase project performance and accountability, 3) develop quantitative objectives for the Program, 4) engage in a periodic and systematic exchange of science and policy information, and 5) adaptively manage the Program to solve uncertainties and guide decision making (NPCC 2010a). In 2011, the NPCC adopted High Level Indicators (HLIs) for reporting status of fish, wildlife and their habitat to assist in assessing Program effectiveness. The work performed through this project will facilitate some of the coordination and collaboration necessary to meet those needs. As described in the Coordination Definitions document developed in 2007 (CBFWA 2007a): coordination is the "Sovereigns' ability to represent its interests and engage in the processes that affect those interests as they relate to the Columbia River Basin Fish and Wildlife Program (Program). Coordination is done at various levels among and between fish and wildlife managers and tribes, BPA, NPCC, and various other entities as they relate to the Program."</p> <p>However, coordination does not occur spontaneously. Facilitation is required to develop agendas, arrange meetings, document discussions, provide synopses and analyses, develop draft discussion papers and recommendations, and encourage completion of products and deliverables. This project provides the opportunity to develop coordinated input into decision-making processes and provides technical and policy staff to support development of issue descriptions and conversations on topics that include multiple fish and wildlife managers' jurisdiction or responsibilities.</p> <p>Stakeholders in the Columbia River Basin represent a diverse and broad array of entities. Without coordinated approaches, that recognize and address the existing diversity of goals and opinions, the region's ability to restore and manage the natural resources in the Columbia River Basin is compromised. An ongoing challenge for the region is the attempt to coordinate the various groups to ensure final products represent an ecosystem approach that has addressed the needs of all of the interested stakeholders. Finally, under the current financial backdrop, coordination can provide efficiencies across multiple Programs and provide exponential cost benefits by aligning similar work (e.g., Anadromous Salmonid Monitoring Strategy and Collaborative Data Sharing Strategy).</p> <p>How will the work be accomplished?</p> <p>Since 1995, the CBFWA has entered into contracts, hired employees, and conducted business through the Foundation. Committees and projects such as the SOTR Project, Anadromous Fish Advisory Committee, Resident Fish Advisory Committee, Wildlife Advisory Committee, Lamprey Technical Work Group, and Fish Screen Oversight Committee have been implemented through the Annual Workplan Project.</p> <p>Although the CBFWA membership has declined in recent years, past-members continue to participate in technical meetings, facilitated by Foundation staff, to develop products to support the Program. Because these meetings have not required participants and decision-making processes to follow the consensus rules of the CBFWA Charter, non-CBFWA members can participate fully. In fact, this approach recently allowed Foundation staff to collaborate with other coordination groups (e.g., Upper Columbia United Tribes and Pacific Northwest Aquatic Monitoring Partnership) as well as NPCC staff to develop draft RM&amp;E implementation</p> |

strategies for resident fish, wildlife, and anadromous fish. With the absence of the consensus rules at technical-level meetings, fish and wildlife managers and other coordination entities, regardless of their membership status in CBFWA, have exhibited a greater interest to utilize and depend on the coordination and facilitation services provided through the Foundation.

For 2013-2015, the CBFWA Members have directed the Foundation to manage and implement the coordination and facilitation services for the technical forums separate from the constraints of the CBFWA Charter and membership. Subsequently, CBFWA's long-standing committees (i.e., Resident Fish Advisory Committee, Anadromous Fish Advisory Committee, and Wildlife Advisory Committee) will no longer exist as advisory committees to the CBFWA's Members Advisory Group and Members but instead will function as independent forums that collaborate with the NPCC staff and BPA staff to provide technical assistance for the development and implementation of the Program. In addition, forum coordinators will be available to provide technical advice and assistance (e.g., preparation of reports, proposals, responses, representation at meetings, etc.). Workgroup agendas will be driven by priorities set by the participants (e.g., fish and wildlife managers, BPA, NPCC, etc.).

**Where will the work be done?**

A central staff will be located in Portland. In an attempt to reduce meeting and travel costs, efforts will be taken to encourage "electronic meetings"; however, some meetings will require face-to-face sessions. Additional meeting areas would likely include Boise and Spokane, locations fish and wildlife managers consider as central for the upper parts of the Columbia River Basin. Travel to specific site locations will be required on an as needed basis.

**How long will the work last?**

Specific coordination activities can be identified generally for the next three years. The work plan will need to be adjusted on an annual basis to ensure specific priority activities are addressed.

**Who will perform the work?**

To implement the coordination and facilitation services, the Foundation will employ a central staff that has extensive experience and expertise in each of the proposed areas of focus, a working knowledge of the NPCC's Program, existing professional relationships with tribal, state, and federal fish and wildlife managers, coordination groups, BPA, NPCC, and other entities from throughout the Columbia River Basin. It is important that these functions remain within a common project to ensure integration of principles and ideas across the seven focus areas.

**How will you monitor/measure effectiveness?**

The Foundation has implemented the recommendations of the ISRP for reporting metrics for regional coordination (ISRP 2007-14). The Foundation will monitor the number of meetings, attendance, degree of representation, and deliverables produced from those meetings (for Members and Foundation staff). In addition, changes in behavior, value to participants, and reduction in redundancy will be evaluated. The Foundation recognizes that surveys can be an invaluable tool for reaching out to key audiences to assess a wide range of issues and obtain meaningful, actionable feedback. Subsequently, surveys will be conducted for each forum to ensure the required actions are taken to allow the forums to remain useful and be of interest to a broad user group.

|                      |  |
|----------------------|--|
| Purpose:             | Programmatic   |
| Emphasis:            | Regional Coordination  |
| Species Benefit:     | Anadromous: 50.0% Resident: 25.0% Wildlife: 25.0%  |
| 2009 F&W Program:    | Yes  |
| Fish Accords:        | <none>   |
| Biological Opinions: | FCRPS 2008 ( <a href="#">RPA 71.2</a> , <a href="#">RPA 71.3</a> , <a href="#">RPA 71.5</a> , <a href="#">RPA 71.6</a> , <a href="#">RPA 72.3</a> , <a href="#">RPA 50.8</a> , <a href="#">RPA 51.1</a> , <a href="#">RPA 51.2</a> , <a href="#">RPA 51.3</a> , <a href="#">RPA 44</a> , <a href="#">RPA 71.4</a> , <a href="#">RPA 72.1</a> ) |

**Proposal History**

| Date       | Time    | Type   | From  | To                          | By                          | Archive                  |
|------------|---------|--------|-------|-----------------------------|-----------------------------|--------------------------|
| 10/6/2011  | 3:56 PM | Status |       | Draft                       | <a href="#">Neil Ward</a>   |                          |
| 11/30/2011 | 2:10 PM | Status | Draft | ISRP - Pending First Review | <a href="#">Tom Iverson</a> | <a href="#">Download</a> |

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[Rosemary Mazaika](#) (Supervisor)

## Location

### Basinwide

**Reach:** Basinwide

Work Elements associated with this location: [99. Outreach and Education](#), [115. Produce Inventory or Assessment](#), [122. Provide Technical Review](#), [174. Produce Plan](#), [175. Produce Design and/or Specifications](#), [183. Produce Journal Article](#), [189. Coordination-Columbia Basinwide](#)

## Project Significance & Problem Statement

### Project Significance to Regional Programs:

Project Significance to Regional Programs:

The primary purpose of the Columbia Basin Fish and Wildlife Foundation's (Foundation) project is to assist the federal and state fish and wildlife managers and Native American tribes, Northwest Power and Conservation Council (NPCC), and Bonneville Power Administration (BPA), in coordinating their activities with other programs to ensure cost effective, efficient implementation of fish and wildlife activities in the Columbia River Basin. The primary regional programs are listed here:

NPCC's Columbia River Basin 2009 Fish and Wildlife Program (Program)

The NPCC's Program is intended to integrate Northwest Power Act (Act) requirements, Endangered Species Act (ESA) requirements, and the policies of the federal and state fish and wildlife agencies and tribes of the Columbia River Basin into a comprehensive program grounded in a scientific foundation. One of the "Implementation Provisions" of the Program is coordination. The Program recognizes that the NPCC benefits from the coordinated efforts of many groups on an ongoing basis, and continued coordination is expected and supported. The Program lists a number of priority activities that support Program implementation, all of which are part of this project and explained in further detail in subsequent sections.

The Independent Scientific Advisory Board (ISAB) noted that effective conservation and restoration of the Columbia River Basin requires a broader, more comprehensive, and more coordinated approach (ISAB 2011-4). One need is for coordination of conservation and restoration actions over large areas, and landscape ecology provides a foundation for this. Another need is for coordination of social and institutional governance, involving leadership, improved communication, collaboration among all interests, and development of shared goals and values. Through the focus workgroups that the Foundation's staff coordinate and facilitate, many of the coordination needs, identified by the NPCC and ISAB, are addressed. .

NPCC's Draft Monitoring Evaluation Research and Reporting (MERR) Plan

The MERR Plan (NPCC 2010a and 2010b) includes three implementation strategies (i.e., Anadromous Fish Implementation Strategy, Resident Fish Implementation Strategy, and Wildlife Implementation Strategy) to provide guidance in prioritizing and implementing research, monitoring, evaluation, and reporting. The Foundation's staff has been integral in coordinating and facilitating the efforts of fish and wildlife managers and assisting NPCC and Bonneville Power Administration (BPA) staffs in developing the initial implementation strategies (i.e., Anadromous Salmonid Monitoring Strategy, Resident Fish Monitoring Implementation Strategy, Wildlife Monitoring Implementation Strategy, and Columbia River Basin Collaborative Data Sharing Strategy for Salmon and Steelhead). These efforts, facilitated through the focus workgroups, are ongoing and described in this proposal.

The NPCC has approved three High-Level Indicators (HLI) (i.e., abundance of fish and wildlife, hydrosystem passage and survival, and NPCC actions) to communicate to Congress on the biological and implementation progress accomplished through the Program. The NPCC chose to postpone its decision on the fourth HLI (i.e., ecosystem health) until it is defined more clearly. As part of their action, the NPCC recommended that CBFWA include the fish and wildlife Program indicators in the Status of the Resource (SOTR) Report ([http://www.nwcouncil.org/fw/program/hli/2009\\_10.htm](http://www.nwcouncil.org/fw/program/hli/2009_10.htm)).

2008 Federal Columbia River Power System (FCRPS) Biological Opinion

The Federal Action Agencies have developed RM&E and coordination actions in support of the Biological Opinion for the FCRPS. In addition, the Adaptive Management Implementation Plan (AMIP) includes activities relevant to this project.

Reasonable and Prudent Alternative (RPA) 44 describes the need for the development of strategies to reduce non-indigenous fish, including the formation of a workshop as an initial step. To implement the RPA action, the Foundation organized, coordinated, and co-hosted a non-native species predation workshop with approximately 100 attendees representing 18 federal, state and tribal entities, and several regional universities. A report on the proceedings identified a number of predation management strategies, most requiring a level of basic field research as a first step toward implementing full-scale management actions. A follow-up meeting in May 2009 narrowed the focus to a few high priority approaches that warranted further development. This effort is recognized in the Adaptive Management Implementation Plan, which states that "The Action Agencies have worked collaboratively with regional scientists to identify priorities to manage non-native predators such as shad, catfish and smallmouth bass. Based on this information, the Action Agencies will accelerate research study designs, independent scientific review and development of specific management strategies." Through this project, the Foundation staff continues to provide coordination and facilitation services to support efforts associated with RPA 44.

Reasonable and Prudent Alternatives 50 and 51 call for collaboration in fish population status monitoring. The Foundation's staff played a major role in organizing, implementing, facilitating, and ensuring attendance of fish and wildlife managers at a series of workshops to plan activities to meet these RPAs through the Anadromous Salmonid Workshops (<http://www.cbfwa.org/AMS/>). It is anticipated that Objective 2 of this project will continue to provide coordination and facilitation services for upcoming workshops.

As a follow-up to the Anadromous Salmonid Workshops, the Coordinated Assessments component of this project directly relates to RPA 71.4 which calls for working with regional monitoring agencies to develop, cooperatively fund, and implement standard metrics, business practices, and information collection and reporting tools needed to cooperatively track and report on the status of regional fish improvement and fish monitoring projects. This RPA is addressed by both by the Coordinated Assessments and Status of the Resources components of this project.

Reasonable and Prudent Alternative 72.1 calls for continued work with regional, federal, state and Tribal

agencies to establish a coordinated and standardized information system network to support the RM&E program and related performance assessments. Support for this work is also being provided through the Coordinated Assessments and SOTR components of this project.

#### Bull Trout Recovery Plan (USFWS)

Although this project does not directly support the U.S. Fish and Wildlife Service (USFWS) efforts under the Draft Bull Trout Recovery Plan, this project supports the recovery plan efforts through coordination of the resident fish implementation strategy for bull trout, work on resident fish loss assessments, and supporting resident fish managers' participation in the upcoming Program Amendment process. The USFWS is an active and engaged participant in the coordinated technical forums facilitated by Foundation staff.

#### Pacific Lamprey Conservation Initiative (USFWS)

The approach of the Pacific Lamprey Conservation Initiative is a three part process including the development of: 1) an assessment and template for conservation measures, 2) a conservation agreement, and 3) regional implementation plans. The assessment identifies critical uncertainties regarding life history and improves the scientific understanding of the importance of Pacific lamprey in the ecosystems of the United States. In addition, the assessment : 1) presents current knowledge of Pacific lamprey habitat requirements, 2) identifies abundance, 3) provides historic and current distribution, 4) describes threats and factors for decline, and 5) identifies conservation actions and research, monitoring, and evaluation needs. The development of the assessment relied on the involvement of many entities, including the Lamprey Technical Workgroup (LTWG) which is coordinated and facilitated by Foundation staff. The LTWG has provided technical review, guidance, and recommendations for activities related to lamprey conservation and restoration. The Assessment notes that actions identified in the Critical Uncertainties Report (LTWG 2011a) produced by the LTWG are applicable throughout the Columbia and Snake River basins. A recommendation in the Assessment is to consult the LTWG for updated critical uncertainty prioritization. Continued coordination and facilitation services for the LTWG are provided by Foundation staff through this project.

#### Tribal Lamprey Restoration Plan (CRITFC)

The tribes proposed restoration of Pacific lamprey through the Tribal Lamprey Restoration Plan to achieve numbers adequate for tribal use and ecological health of the region. The Tribal Lamprey Restoration Plan states that action must be taken now, despite a general paucity of information about the life history and population dynamics. The LTWG brings together all lamprey experts and managers in the Columbia River Basin to discuss issues and provide technical information to inform policy and management. Examples include the 2005 Critical Uncertainties Report (LTWG 2005 and 2011a) and 2011 Lamprey Translocation Review (LTWG 2011b). These documents were considered in the development of or implementation of the Plan. Many information needs identified in the Tribal Lamprey Restoration Plan are based on the Critical Uncertainties Report. The LTWG has provided the only comprehensive review of translocation, a key management tool recommended in the Tribal Lamprey Restoration Plan. Through this project, the LTWG, coordinated and facilitated by the Foundation's staff, will continue to provide key insights and technical review of actions taken through the Tribal Restoration Plan.

#### Screen Criteria for Anadromous Salmonids (NMFS)

The National Marine Fisheries Service (NMFS) provides guidelines and criteria to be utilized in the development of functional designs of downstream migrant fish passage facilities for hydroelectric, irrigation, and other water withdrawal projects. In 2011, the NMFS developed criteria for horizontally-oriented screens. Horizontal screens had previously been evaluated as experimental technology, because they operate fundamentally different than conventional vertically oriented screens. This difference relates directly to fish safety, because when inadequate flow depth exists with vertically oriented screens, there is no potential for fish to get trapped over the screened surface. In contrast, when the water level on horizontal screens drops and most or all diverted flow goes through the screens, there is a high likelihood that fish will become impinged and killed on the screened surface. The NMFS requested that draft criteria for horizontal screens be reviewed and endorsed by the Fish Screening Oversight Committee (FSOC) which is coordinated and facilitated by Foundation staff. The FSOC reviewed the criteria, requested some revisions, and then endorsed the revised criteria. The NMFS sought FSOC approval to ensure criteria were consistent throughout the region. Fish screen improvements will continue to be developed and will require future review. Continued coordination and facilitation services for the FSOC will be provided by Foundation staff through this project.

#### Fisheries Restoration and Irrigation Mitigation Act (FRIMA) (USFWS)

The FRIMA, originally passed in 2000, was recently reauthorized by Congress. This law created a voluntary, cost-shared fish screen installation and diversion dam correction program for water withdrawal projects in the portions of Idaho, Oregon, Washington, and western Montana that drain into the Pacific Ocean. This program is implemented by the USFWS in cooperation with state and tribal partners in the Northwest. The FSOC plays a major role in implementation and coordination of FRIMA projects through workshops and information exchange. Continued coordination and facilitation services for the FSOC will be provided by Foundation staff through this project.

#### Pacific Coastal Salmon Recovery Fund (PCSRF) (NOAA)

The products developed through the Anadromous Salmonid Workshops and the Coordinated Assessments project are specifically designed to integrate PCSRF funding with BPA funding, and to help establish RM&E funding priorities for both programs. Through this project, the Foundation staff will continue to provide coordination and facilitation to support those efforts.

#### Lower Snake River Compensation Plan (LSRCP) (USFWS)

Although this project does not directly support efforts under the LSRCP, the LSRCP partners are active and engaged participants in the coordinated technical forums facilitated by the Foundation staff under Objective 2 of this proposal. An example of this is the collaboration that has occurred during the Coordinated Assessments Project in aligning LSRCP data management with the priorities identified in the Columbia River Basin Collaborative Data Sharing Strategy (CBFWA, PNAMP, and StreamNet 2011a).

#### Problem Statement:

##### Regional Coordination

In the 2009 Program, the NPCC states that it benefits from the coordinated efforts of many groups, committees and organizations in implementing the Program on an ongoing basis (NPCC Document 2009-09). Continued coordination of various Program elements is expected, supported, and in some cases financed by BPA. The elements below represent the key areas in which the NPCC seeks continued coordinated efforts from fish and wildlife managers and interested parties throughout the Columbia River Basin. The NPCC suggested coordination funding should be focused on the following elements that support Program implementation:

- Data management (storage, management, and reporting)
- Monitoring and evaluation (framework and approach)

- Developing and tracking biological objectives
- Review of technical documents and processes
- Project proposal review
- Coordination of projects, programs and funding sources within subbasins
- Facilitating and participating in focus workgroups on Program issues
- Information dissemination (technical, policy, and outreach)

*This proposal identifies deliverables for each of these coordination elements in the Work Type Details section (under the Program Coordination subsection).*

In 2007, the NPCC established a regional coordination placeholder and asked NPCC staff and project sponsors to define regional coordination activities, implementers, and costs (<http://www.nwcouncil.org/fw/budget/2007/finalrcp/programmatic.pdf>). Representatives from the existing regional coordination groups (i.e., CBFWA, Upper Columbia United Tribes (UCUT) and Columbia River Inter-Tribal Fish Commission (CRITFC), NPCC staff, BPA, and Upper Snake River Tribes developed a long-term proposal describing appropriate regional coordination needs and activities. In addition, the group completed the white paper "Regional Coordination for the Fish and Wildlife Program Today and Tomorrow: Current Status and Proposed Future Direction" (CBFWA 2007a), which includes a definition of regional coordination, the adaptive management framework for which coordination is based, and how each entity fits into this framework. The white paper serves two purposes: 1) to be used as supporting documentation for detailed work plans and budget requests for Fiscal Year (FY) 2008 and 2009, and 2) a basis for Program amendment recommendations. The following excerpts from the white paper highlight the need for coordination as described in the Northwest Power Act (Act):

- The Act requires that the Columbia River Basin be treated as a system, and the 2000 [and 2009] Program is a biological framework approach to mitigation implemented through 58 subbasin plans. This necessitates close coordination between planners and implementers of the Program throughout each level -- subbasin, ecological province, basinwide -- and through each step of the adaptive management process (plan, implement, evaluate) that guides implementation of the Program.
- The Act also directs the NPCC and BPA to consult with the federal and the region's state fish and wildlife agencies and the region's appropriate Indian tribes in the development and implementation of the Program. Per the Act, "the Council shall develop a program on the basis of such recommendations, supporting documents, and views and information obtained through public comment and participation, and consultation with the agencies, tribes, and customers referred to in subparagraph (A) of paragraph (4)..." [Northwest Power Act, §4(h)(5), 94 Stat. 2709]. The Act also calls for recommendations from the fish and wildlife managers for coordination (including funding) to assist protection, mitigation, and enhancement of fish and wildlife resources in the Columbia River Basin.
- The Act sets standards that the Program measures must meet, including that they will "complement the existing and future activities of the Federal and region's State fish and wildlife agencies and appropriate Indian tribes" [Section 4.(h)(6)(A)]; and, "be consistent with the legal rights of appropriate Indian tribes in the region" [Section 4.(h)(6)(D)]. In reviewing amendments to the Program, "the Council, in consultation with appropriate entities, shall resolve... [any] inconsistency in the program giving due weight to the recommendations, expertise, and legal rights and responsibilities of the Federal and the region's State fish and wildlife agencies and appropriate Indian tribes" [Section 4.(h)(7)]. The NPCC adopted the first Program in 1982 and, through fish and wildlife manager and public participation, amended it in 1984, 1987, 1991-93, 1994, 1995, 2000, 2003 and most recently with the inclusion of subbasin plans [most recent update in 2009].
- Program success depends on the NPCC's recognition of the fish and wildlife agencies' and tribes' priorities and plans, and their meaningful inclusion in the Program. At the same time, success of the program depends on prompt, coordinated, and cost effective implementation of program measures and projects by all implementers, including the fish and wildlife agencies and tribes, and monitoring and reporting of program success.
- The Act directs the BPA to "exercise such responsibilities [for operating the hydropower system]... to adequately protect, mitigate, and enhance fish and wildlife, including related spawning grounds and habitat, affected by such projects or facilities in a manner that provides equitable treatment for such fish and wildlife with other purposes for which such system and facilities are managed and operated" [Section 4.(h)(11)(A)]. Section 4.(h)(11)(B) directs the BPA to consult with the fish and wildlife agencies and tribes "in carrying out the provisions of this paragraph [Section 4.(h)(11)(A)] and shall, to the greatest extent practicable, coordinate their actions.
- The Act also calls for Program recommendations specifically for "fish and wildlife management coordination and research and development (including funding) which, among other things, will assist protection, mitigation, and enhancement of anadromous fish at, and between, the region's hydroelectric dams." [Northwest Power Act, §4(h)(2)(C), 94 Stat. 2708.] The following excerpt from the Act partially explains the BPA's role and obligation in funding coordination of the fish and wildlife managers in regional discussions regarding operation of the FCRPS and implementation of the NPCC's Program. To ensure success, Section 4.(g)(3) of the Act states that, "...the Council and the [BPA] Administrator shall encourage the cooperation, participation, and assistance of appropriate Federal agencies, State entities, ... and Indian tribes," and that the NPCC and BPA can contract with the fish and wildlife agencies and tribes individually, "or through associations thereof," to "provide technical assistance in establishing... fish and wildlife objectives.
- Coordination for the F&W Program requires a meaningful role for the fish and wildlife managers to develop and implement measures in the Program to protect, mitigate, and enhance fish and wildlife populations affected by the Columbia River hydropower system. Each fish and wildlife manager and tribe within the basin must be afforded the opportunity to assess and interact with any and all regional issues associated with the Program, consistent with their inherent responsibilities, interests, and sovereignty. Coordination provides an opportunity for decisions within the Program to benefit from the cumulative information and experience of the fish and wildlife managers and tribes. Coordination is required at the planning, implementation, and evaluation stages of the adaptive management process envisioned for the Program. Benefits to the Program include more efficient Program planning, improved continuity and cohesiveness, and increased effectiveness of the actions that will be implemented by many entities.

#### NPCC's draft MERR Plan - Coordination of the Development of Monitoring Implementation Strategies

The following information provides a synopsis of an electronic correspondence that the Foundation staff received from the NPCC staff:

In the 2009 Program Amendment, the NPCC committed to developing an improved framework and strategies for monitoring and evaluating activities and elements implemented through the Program. The draft MERR Plan and the associated implementation strategies are part of that commitment. The draft MERR Plan and the implementation strategies are not formally adopted NPCC documents nor part of the Program, nor will they be the basis on which formal decisions are made in the near-term, including within the geographic review. Instead, the draft MERR Plan and implementation strategies are intended to organize information so the NPCC, the NPCC staff, and others active within the Program are able to understand the RM&E activities stakeholders need to implement or expect to implement over the next few years, and how those specific activities relate to the broader RM&E needs of the Program. It is hoped these documents will be useful as guidance by all relevant parties to link specific RM&E actions to a larger framework. Work will continue on the draft MERR Plan and implementation strategies with the understanding the products will be considered when the Program is amended in 2014.

The draft MERR Plan serves as a platform to informally work with the region prior to the 2014 Program Amendment process. Ideally, a potential approach to identifying RM&E-related components of the Program would be completed in time for the region to formally react (i.e., submit supporting/alternative/non-supporting recommendations) to these suggestions. In March 2010, the NPCC released, for public review and comment, an initial draft of the MERR Plan. The NPCC staff is currently drafting a revised set of objectives for the Program at the basin-wide and provincial-level, and continuing to work with the region's agencies and tribes to complete a first draft of the RM&E implementation strategies for resident fish, wildlife and anadromous fish.

Development of the draft MERR Plan's RM&E implementation strategies are further along than the revision of Program objectives. Several agencies and tribes have been collaboratively developing implementation strategies through a process coordinated and facilitated by Foundation staff and involving NPCC staff. The draft implementation strategies provide a basin-wide context for RM&E and reporting which will facilitate communicating the Basin's strategy for implementing the Program by: 1) providing a collaborative and coherent summary of the RM&E being conducted through the Program, 2) providing a contextual background information for ISRP review of relevant projects, 3) informing Program progress assessment, 4) meeting the assessment needs of other processes (e.g., recovery plans and biological opinions) recognized by the Program. The draft MERR Plan provides guidance for the development of implementation strategies and includes recommendations for assessing how existing RM&E can provide information relative to the NPCC's: 1) 10 draft management questions, 2) HLLs, 3) Program biological objectives, 4) Program performance standards (as they become available), 5) MERR Plan's prioritization scheme, and 6) MERR Plan research and monitoring approaches. As informal strategies, the NPCC does not expect any of the regional partners to formally adopt these strategies.

The implementation strategies should be developed by regional partners, and aim to integrate other regional products, as appropriate, to provide a holistic understanding of the status of RM&E activities in the Columbia River Basin. This includes incorporating as appropriate, the content of RM&E synthesis, such as for lamprey and sturgeon, called for by the NPCC's RM&E and AP+ Project Category Review process during 2010-2011.

Currently, the implementation strategies are at various stages of development. The stage of development for the wildlife and resident fish strategies are described below:

#### **Wildlife Implementation Strategy**

Since 2009, many of the agencies and tribes have been working on the framework for the draft Wildlife Monitoring Implementation Strategy (WMIS). Identifying relevant HLLs for wildlife, within the context of the NPCC's Program, has been a challenge and will require continued discussion and coordination. The WMIS will continue to be updated and refined to include additional HLLs (e.g., Ecosystem Health) as they are adopted by the NPCC. To provide contextual background for wildlife data management projects, a preliminary draft is available for the ISRP review of data management projects (Wildlife Focus Workgroup 2011).

#### **Resident Fish Implementation Strategies**

Since 2010, agencies and tribes from throughout the Columbia River Basin have been developing implementation strategies for resident fish species (i.e., white sturgeon, bull trout, burbot, kokanee, cutthroat trout, redband-rainbow trout, largemouth bass, and mussels) that were identified as "focal" in subbasin plans. To complete the implementation strategies, the agencies and tribes established a three-phase process. In Phase I, which is now complete, common metrics were identified and RM&E efforts providing data, relative to the metrics were compiled. This compilation is organized by focal species/subbasin/province, existing RM&E information. During Phase II which is scheduled to begin in December 2011, resident fish managers and researchers will collaborate to develop comprehensive RME implementation strategies, across provinces, for each focal species. Beginning in April 2012, managers will begin Phase III, which will consist of working to develop a protocol for data management, sharing, and reporting.

#### **Next Steps for Wildlife and Resident Fish Implementation Strategies**

As the implementation strategies are developed and provided to the NPCC for inclusion under the MERR Plan, it is expected that the NPCC will validate the information by: 1) informing the Fish and Wildlife Committee and the NPCC on the status of the draft implementation strategy being developed by the region, 2) work with relevant project proponents to give them opportunities to comment and contribute to the draft strategy and having all comments and concerns addressed as appropriate, 3) seeking informal ISAB and ISRP review and

comment on the draft strategy, either in advance of or concurrently with a related project review process as preferred by the ISRP and ISAB, and 4) posting on the NPCC website the draft strategy, or sub-component, that has substantial support by the region as being a useful coordinated implementation strategy. Subsequent to this process, revisions will be made to address any comments received. During the 2014 Program Amendment process the region, including agencies and tribes, may consider submitting the strategies as a recommendation to NPCC.

**Foundation Support of the draft MERR Plan**

Per the draft MERR Plan, implementation strategies are to be produced by tribal, state, and federal fish and wildlife managers as well as by entities involved in coordinating research, monitoring, and evaluation. The NPCC has encouraged a collaborative process involving the fish and wildlife managers.

Since 2009 the Foundation staff, through this project, has been assisting the NPCC and BPA with coordination and facilitation efforts to develop the implementation strategies. Currently, Foundation staff continues to collaborate with the NPCC and BPA by providing coordination and facilitation services during the development and continued maintenance of the Anadromous Salmonid Monitoring Strategy (ASMS), draft Resident Fish Implementation Strategies, draft WMIS, draft Lamprey Monitoring Strategy, and the Columbia River Basin Collaborative Data Sharing Strategy for Salmon and Steelhead.

The approaches that have been used to develop the implementation strategies have varied depending on the topic and species. For example, the ASMS, which relates to Viable Salmonid Population (VSP) Parameters, habitat effectiveness, and hatchery effectiveness for anadromous salmon and steelhead, was developed through a series of sub-regional and regional workshops. Those workshops carried forward in the development of the basin-wide data sharing strategy that followed (Coordinated Assessments Project). Efforts to complete the resident fish and wildlife implementation strategies have been coordinated and facilitated by Foundation staff in collaboration with NPCC staff while, working closely with the various focus workgroups and stakeholders (primarily UCUT staff for the upper Columbia resident fish strategies).

Because the implementation strategies are intended to be living documents (NPCC 2010-17), the NPCC expects that the implementation strategies will be updated as information becomes available. The NPCC suggested that the implementation strategies be updated on an annual basis to facilitate what is learned to improve Program implementation. The NPCC's has proposed approach to updating the implementation strategies, on an annual basis, will require a continuation of the coordination that was essential for developing the initial documents.

**Coordinating the Reporting of High Level Indicators and Fish and Wildlife Program Indicators**

The NPCC adopted three HLIs (i.e., abundance of fish and wildlife, hydrosystem survival and passage, and NPCC actions) for reporting Program progress to Congress (See: <http://www.nwouncil.org/fw/program/hli/Default.htm>). In adopting the HLIs, the NPCC understood that managing and reporting the data necessary to support those indicators would be needed. They did not intend to fund additional projects to support that work, and therefore would rely on existing projects currently managing the data necessary for consistent, reliable, and up-to-date indicators. Subsequently, the NPCC recommended that the Foundation's Status of the Resources (SOTR) Project include the Fish and Wildlife Program Indicators in its data mining and compiling efforts for the SOTR website and annual report. (See: [http://www.nwouncil.org/fw/program/hli/2009\\_10.htm](http://www.nwouncil.org/fw/program/hli/2009_10.htm)). The importance of the SOTR Project, from data coordination and sharing perspective, is also highlighted in the Draft MERR Plan (NPCC 2010-17, Page 27 and 37).

An important function of regional coordination is to provide direction to the regional data management projects. History has shown that regional data management projects need oversight and guidance from the biologists that provide data into the data sharing systems, and extract data from the systems, in order to adequately support reporting useful HLIs that support regional decision-making. Through the Coordinated Assessments Project and during the development of the WMIS, the linkage between data users, data providers, and the data management projects themselves was emphasized and both workgroups concluded that ongoing coordination was mandatory to provide successful data management and sharing into the future.

**Coordinating Program Amendments**

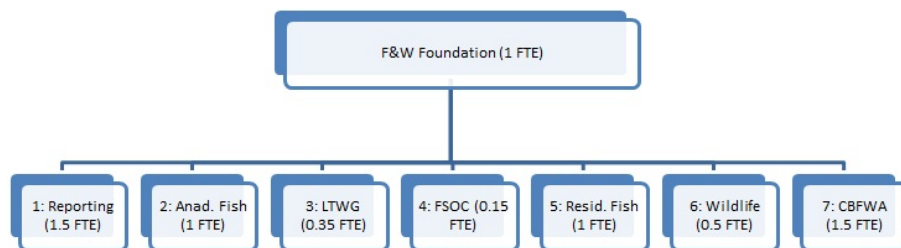
The NPCC has announced that they intend to update the Program in 2014. The Act envisions a participatory process that depends on the expertise of the fish and wildlife managers to identify measures necessary for the protection, mitigation, and enhancement of the fish and wildlife resources and their habitat. In 2008, 17 fish and wildlife agencies and tribes were able to coordinate their amendment recommendations and submit a unified set of measures (CBFWA 2008a) for the NPCC's consideration. The Program requires active participation by individual agencies and tribes in it planning, implementation, and evaluation to ensure goals and objectives, and other Program measures are effectively integrated with the management programs of each fish and wildlife agency and tribe and that the policy and technical basis for regional decision-making is consistent with those programs. As coordinating entities, it is the responsibility of agencies and Tribes to ensure their policy and technical representatives dedicate time and effort, as necessary, to ensure the Program is integrated with their management programs and is designed, implemented, and evaluated so that the anticipated benefits accrue to fish and wildlife.

The focus workgroups identified in this proposal will provide the support and network to encourage consistent recommendations by the agencies and tribes. It will benefit the NPCC, and the region, if the agencies and tribes can communicate their recommended measures in a manner that integrates their needs, rather than providing 21 disparate recommendations that must be reconciled by the NPCC.

**Proposed Organization of Ongoing Focus Workgroups (FY2013-2015)**

Beginning in FY2012, the CBFWA Members will no longer provide the sole funding to support regional coordination activities that operate outside of the confines of the CBFWA Charter. This has led to a change in how the Foundation will provide support services to the Members and outside entities. While the Foundation staff will continue to facilitate CBFWA (Objective 7), the Foundation staff will also facilitate six focus workgroups that provide the capability for BPA, NPCC and all the fish and wildlife managers to establish and maintain a central staff to facilitate regional technical forums that were historically funded through CBFWA (Figure PSI). The proposal has been developed in a manner that allows each individual objective to be funded separately (Table PSI).

Figure PSI. Focus workgroups coordinated and facilitated by the Columbia Basin Fish and Wildlife Foundation.





|                           | Objective 1:<br>Reporting | Objective 2:<br>Anad. Fish | Objective 3:<br>LTWG | Objective 4:<br>FSOC | Objective 5:<br>Res. Fish | Objective 6:<br>Wildlife | Objective 7:<br>CBFWA | Total               |
|---------------------------|---------------------------|----------------------------|----------------------|----------------------|---------------------------|--------------------------|-----------------------|---------------------|
| Personnel                 | \$ 145,465                | \$ 158,231                 | \$ 67,316            | \$ 39,343            | \$ 158,231                | \$ 88,297                | \$ 251,243            | \$ 908,125          |
| Travel                    | \$ 1,000                  | \$ 3,500                   | \$ 1,500             | \$ 1,500             | \$ 4,500                  | \$ 4,000                 | \$ 181,031            | \$ 197,031          |
| Prof. Meetings & Training | \$ 500                    | \$ 3,500                   | \$ 500               | \$ 1,000             | \$ 2,500                  | \$ 2,500                 | \$ 4,600              | \$ 15,100           |
| Facilities/Equipment      | \$ 5,000                  | \$ 1,500                   | \$ 1,200             | \$ 1,200             | \$ 1,500                  | \$ 1,500                 | \$ 33,700             | \$ 45,600           |
| Rent/Utilities            | \$ 13,960                 | \$ 13,960                  | \$ -                 | \$ -                 | \$ 13,960                 | \$ 960                   | \$ 33,253             | \$ 76,093           |
| Overhead/Indirect         | \$ 48,716                 | \$ 53,051                  | \$ 20,704            | \$ 12,637            | \$ 53,051                 | \$ 28,555                | \$ 113,583            | \$ 330,296          |
| <b>Total</b>              | <b>\$ 214,641</b>         | <b>\$ 233,742</b>          | <b>\$ 91,220</b>     | <b>\$ 55,680</b>     | <b>\$ 233,742</b>         | <b>\$ 125,811</b>        | <b>\$ 617,410</b>     | <b>\$ 1,572,245</b> |

Table PSI. Line item budget for each objective proposed for facilitation by the Columbia Basin Fish and Wildlife Foundation.

**Background and Justification for Objective 1: Status of the Resources Report**

The NPCC's 2000 Program recommended that data should be collected in a standard format and that "the Council will initiate a process for establishing an Internet-based system for the efficient dissemination of data for the Columbia Basin." (NPCC 2000-19). In 2004, the NPCC recommended to the BPA, to fund the CBFWA Annual Work Plan proposal including an effort to compile a website and annual report on the status and trends of fish and wildlife populations in the Columbia River Basin. Prior to the completion of subbasin plans, the ISRP suggested there "is the need for readily accessible data on numbers of adults returning to the subbasin (i.e., escapement estimates)" (ISRP 2000). Subsequently, the ISRP recommended "that Council and BPA ensure that data generated by public funds is readily available through publicly accessible websites" (ISRP 2005). Following the completion of the subbasin plans, the ISAB suggested that "a process to compile and coordinate data for the Columbia Basin is an obvious need" (ISAB 2006).

Following the completion of the subbasin plans, the Foundation staff began to coordinate and implement the SOTR Project utilizing a uniform basin-wide design to track the status of fish and wildlife populations throughout the Columbia River Basin. To be successful, staff initiated a two-step process: 1) coordinate with data generators (agencies and Tribes), and 2) coordinate with data user groups (NPCC, BPA, NOAA, and others). During 2005, Foundation staff coordinated with the fish and wildlife managers, NPCC, and BPA, to design a process for a continuous data inventory/reporting exercise that would make data on numbers of fish and wildlife readily available through the publicly-accessible SOTR website and reported in an annual report. From December 2005-May 2006, the Foundation staff met with the NPCC, BPA, StreamNet, and other organizations to ensure the: 1) SOTR Project was not duplicative but instead complimentary, 2) appropriate data were included in the inventory, and 3) reporting mechanisms would be useful to interested entities. The entities decided that the SOTR would not be responsible for collecting or analyzing data but would provide the following services: 1) conduct data inventories (i.e., mine and compile), identify data gaps, and report them to the region, 2) ensure data quality, 3) establish and maintain a publicly accessible website for policy-makers, technical experts and the general public, and 4) prepare an annual report designed to inform policy-makers and the general public.

In 2009, the CBFWA Members recognized the need for an integrated report on the status of fish and wildlife and their habitats in the Columbia River Basin relative to the goals and objectives defined in the NPCC's Program. The tribes and agencies intended to consolidate this information to support multiple processes and programs affecting fish and wildlife. Therefore, the Members directed Foundation staff to maintain the SOTR website and annually prepare a written report summarizing the current information provided on the website (CBFWA FY2010 Workplan).

In 2010, Foundation staff updated the SOTR website in numerous ways. An option has been added to navigate the website according to the NOAA Fisheries hierarchical organization for salmon and steelhead (i.e., ESU/DPS/MPG/Population). All data can now be summarized in that format to support ESA review and discussions. Hatchery and harvest data have also been updated and enhanced. For the remainder of the FY2010 CBFWA contract and FY2011, a wildlife section was added and refined based on results and information gathered from the Wildlife Crediting Forum. In addition, similar to the anadromous fish ESU/DPS section, a bull trout DPS/Recovery Unit/Core/Population section is currently being developed with assistance being provided by the USFWS. An example of the section is currently available for review and comments at: [http://sotr.cbfgwa.org/DPS\\_GeneralDescriptionbull.cfm?mnu=ESU](http://sotr.cbfgwa.org/DPS_GeneralDescriptionbull.cfm?mnu=ESU). Updates for status, trends, harvest, high level indicators, limiting factors, and hatchery production occur every four months.

**Background and Justification for Objective 2-6: Focus Workgroups to Facilitate Technical-Level Regional Coordination**

Following is an excerpt from the NPCC's RM&E/AP Project Review, Programmatic Issue #11 ([http://www.nwcouncil.org/fw/budget/2010/rmeap/2011\\_06decision.pdf](http://www.nwcouncil.org/fw/budget/2010/rmeap/2011_06decision.pdf))

Issue: What are known as "regional coordination" projects will be reviewed as a category after the RME/AP review. But this review has highlighted a set of coordination issues under the Fish and Wildlife Program that could use focused attention. For one thing, the ISRP often noted a significant lack of necessary coordination among projects aimed at the same end, often compounded by a lack of a strategic plan tying together the work. This includes projects involving ocean research, the projects aimed at estuary habitat improvements and the monitoring and evaluation of effectiveness in the estuary, the projects making up the program's effort at assessing and improving conditions for lamprey, the various predation projects, and the monitoring and evaluation of conservation enforcement activities. Other areas within the monitoring and evaluation and artificial production activities exhibit extensive and necessary efforts at coordination (e.g., the habitat effectiveness work), involving personnel from federal, state, tribal and other entities. And yet little or none of this coordination takes place under the umbrella of or involves the coordination elements of the entities funded under the "regional coordination" projects. These factors illustrate in high relief the Fish and Wildlife Program's recognition that coordination efforts and funding should be focused through a set of functional activities that need coordination, and not necessarily on the basis of entities desiring coordination funding.

As noted in many of the programmatic issues above, the ISRP identified a range of topic areas that suffered from a lack of coordination in a number of ways, and the Panel often recommended a similar set of solutions intended to increase coordinated efficiencies and effectiveness. This includes developing coordinated synthesis reports, sharing data and information through scientific papers and science/policy forums, holding regular workshops focused on specific species, methods, or geographic areas, and on several topics, the drafting of basin-wide management plans.

Staff recommendation: The staff concurs with many of the recommendations the ISRP made for increased coordination. As a result, the Council has seen and will see staff recommendations that address these needs on (1) a project-specific basis; (2) through programmatic recommendations; (3) as a follow-up item to consider in the future (e.g. holding a technical forum on a particular topic in the next year or two).

In addition, during the upcoming category review of regional coordination, the staff will extract the coordination components from the research, monitoring and evaluation and artificial production projects (and other functional projects, such as habitat activities) to help bring about a consistent review of all coordination activities under the Fish and Wildlife Program. The Council will be closely guided in this review by the provision on Program Coordination in the 2009 Fish and Wildlife Program, Section VIII(F). The Council will also take a careful look at the regional coordination projects, to see how well they line up with the coordination needs of the program. As the Council and Bonneville review the regional coordination projects, we may find it appropriate to contract with the recipients of regional coordination funding to take on specific tasks identified in this review to increase basin-wide understanding of our collective work and accomplishments for fish and wildlife.

The Foundation's project addresses many of the concerns expressed by NPCC in the excerpt provided above.

**Following are excerpts from the CBFWA FY2011 Work Plan which support the continuation of the focus workgroups.**

In 2009, the CBFWA Members recognized the role the organization can play in delivering useful technical, science-based products associated with protection, mitigation and enhancement of the Columbia Basin's anadromous and resident fish, and wildlife. The CBFWA's role includes participation in regional efforts to establish and apply appropriate standards, measuring techniques, and metrics to provide status assessments. Therefore, the Members directed Foundation staff to participate in and support ongoing assessments of the status of the species and implementation of strategies and actions to help determine if protection, mitigation, and enhancement efforts are successful in the Columbia River Basin.

Five steps towards achieving basinwide assessments:

- 1) High Level Indicators – Identify basinwide or regional metrics for status and trends of fish and wildlife populations or their surrogates that can assist with regional decision-making. These metrics will be used to establish priorities for data collection and reporting in order to evaluate success of program implementation.
- 2) Monitoring strategy – Identify basin-wide priorities for data collection and coordinate monitoring activities among the tribes and fish and wildlife agencies. Set priorities for BPA funding and create lists for alternate funding (e.g., NOAA, individual sovereign, etc.) to ensure adequate monitoring for all interest groups.
- 3) Coordinated Assessment – Identify the priority data for sharing among co-managers and with regional decision-makers. This includes what information should be shared along with specific metrics and in what format and structure data should be shared. The coordinated assessments support efficiency in data sharing.
- 4) Data management – Establish the support and infrastructure for data sharing partners to ensure data is available for access by appropriate user groups.
- 5) Reporting – Agree upon common reporting formats and use of data to support evaluations at all levels of program implementation.

**Examples of deliverables for FY 2010 and FY 2011 focus workgroups included:*****Salmon and Steelhead:***

Building off the monitoring strategy developed during the Skamania workshops, the anadromous fish managers developed the Coordinated Assessments Work Plan (CBFWA, PNAMP and StreamNet 2010, 2011b and c). The work plan identifies steps that will lead to basin-wide priorities for data management funding (both through BPA and through tribal and individual agency investments in infrastructure). The first draft of a data sharing strategy was completed in November 2011 (CBFWA, PNAMP, and StreamNet 2011a), and by the summer of 2012 a draft Data Exchange Template will be available for use in sharing data to support VSP parameters. This effort will assist in setting priorities for BPA data management funding for the next five years through the NPCC's RM&E Categorical Review.

The FY 2011 CBFWA contract continued the expansion of the Data Exchange Template to include additional VSP parameters, as well as, habitat effectiveness and hatchery effectiveness data. Reporting has continued through the SOTR.

***Lamprey:***

In 2011, the LTWG reviewed and commented on the USFWS Lamprey Monitoring Framework. The framework was modified to support the NPCC's MERR Plan. By the Spring of 2012, the Lamprey Monitoring Strategy will be ready to submit for ISRP review and support the NPCC's geographic reviews.

Under the current CBFWA contract, the LTWG is working on several technical papers including the lamprey translocation paper and lamprey passage standards.

***Fish Screen Oversight Committee:***

The FSOC conducts a biannual workshop and training seminar for construction and operation of fish screens. The FSOC has been active in planning the seminar, as well as sharing information for development of lamprey passage standards.

***White Sturgeon:***

In 2010 and 2011, the white sturgeon subcommittee of the Resident Fish Advisory Committee developed a set of draft implementation strategies for populations above Bonneville Dam to assist the ISRP in their review of proposals submitted for consideration in the NPCC's RM&E and resident fish categorical reviews. Phase II will continue with the development of implementation strategies for populations below Bonneville Dam and in the mid-Columbia. During 2012, the group anticipates developing common monitoring protocols to be included in the monitoring strategy that will be submitted to NPCC as well as data sharing protocols.

***Bull Trout:***

Working with the USFWS, the bull trout subcommittee of the Resident Fish Advisory Committee has discussed the development of an implementation strategy for bull trout. This effort will build off the effort of the USFWS's Bull Trout Research Monitoring, Evaluation Group and develop a basin-wide strategy for reporting and sharing data. It is anticipated that this effort will take a couple of years. The initial focus will be on recovery units for which BPA provides mitigation funds. The purpose of initially focusing on these recovery units first is so that implementation strategies, associated with existing bull trout projects, will be available for the ISRP to reference during their review of proposals submitted through the Resident Fish Categorical Review.

***Other Trout:***

During 2011, resident fish managers completed Phase I of the implementation strategies for trout spp. (e.g., rainbow/reddband trout, cutthroat trout etc.). The initial focus was on identifying common metrics and compiling information at the subbasin- and province-scale. Efforts were focused on those locations for which BPA provides mitigation funds. The purpose of initially focusing on these subbasins was so that the implementation strategies would be available for the ISRP to reference during their review of proposals submitted during the Resident Fish Categorical Review.

***Reservoir Fish:***

In 2011, resident fish managers in the blocked areas completed Phase I of the implementation strategies for reservoir fisheries. The initial focus was on identifying common metrics and compiling information at the subbasin- and province-scale. Efforts were focused on those locations for which BPA provides mitigation funds.

Looking forward, the resident fish managers will focus on developing basin-wide implementation strategies (Phase II) as well as developing common data sharing and reporting standards to support basin-wide evaluations of the Program's mitigation efforts (Phase III).

***Resident Fish Construction and Operational Losses:***

The Resident Fish Advisory Committee continued their work on developing methodologies for evaluating resident fish losses due to construction and inundation of the hydropower system. The Council has indicated that they will be soliciting input for development of a methodology to include in the Program.

***Wildlife:***

The Wildlife Advisory Committee developed the draft WMIS to support the NPCC's MERR Plan (Wildlife Focus Workgroup 2011). The WMIS was being developed on the assumption that additional funding for biological monitoring of wildlife projects is highly unlikely, and that high level indicators should be developed that can be supported by existing monitoring efforts within each of the individual projects or entities

***Wildlife Management Plans:***

The wildlife managers have been working with BPA to develop a common land management plan template. The management plan template will fit into a larger land acquisition handbook being developed by BPA. The Foundation staff continues to coordinate and facilitate wildlife manager involvement in the development of improved, standardized business practices for wildlife projects funded through BPA.

***Regional HEP Team:***

The Regional HEP Team is funded through a separate contract with BPA, but supervised by Foundation staff and the wildlife focus workgroup. The HEP Team contract extends through 2014.

**2014 Program Amendments:**

At the November 2011 NPCC F&W Committee meeting, the NPCC staff identified the need to begin preparations for amendments to the 2009 Program beginning in 2013 or sooner (<http://www.nwccouncil.org/meeting.asp?id=53>). The NPCC staff identified the following list of issues that may be addressed prior to the call for amendments: 1) biological objectives, 2) subbasin plans, 3) habitat restoration and effectiveness, 4) supplementation, 5) predation, 6) integration of ISAB Food Web report, and 7) updating the NPCC's Research Plan.

**Background and Justification for Objective 7: CBFWA**

It is anticipated that CBFWA membership in FY13-15 will consist of representatives from the Burns-Paiute Tribe (BPT), Confederated Tribes of the Umatilla Reservation (CTUIR), Confederated Tribes of the Warm Springs Reservation (CTWSR), Fort McDermitt Paiute-Shoshone Tribe (FMPST), Kootenai Tribe of Idaho (KTOI), Nez Perce Tribe (NPT), NOAA Fisheries, Shoshone-Bannock Tribe (SBT), Shoshone-Paiute Tribe (SPT), USFWS, and the Yakima Nation (YIN).

***CBFWA FY2010-2011 Activities:***

In 2009, the CBFWA Members revised how they conduct business under the CBFWA charter to focus on deliverables. For contract year 2010 (i.e., April 2010 through March 2011), the CBFWA Members adopted the following Policy Directives, and continue to implement them in 2011, committing each member's staff and directing CBFWA staff to:

1. Participate in and support ongoing assessments of the status of the species and implementation of strategies and actions to help determine if protection, mitigation, and enhancement efforts are successful in the Columbia River Basin
2. Maintain the SOTR Project's website and annually prepare a written report summarizing the current information provided on the website
3. Monitor and report on activities of key regional forums where policies, programs, and actions that affect fish and wildlife are planned and implemented

The CBFWA Members recognize the efficiency of a shared central staff with policy and technical expertise to assist Members with issues related to fish and wildlife management in the Columbia River Basin. Therefore, the Members directed Foundation staff to monitor and report on activities of key regional forums where policies, programs, and actions that affect fish and wildlife are planned and implemented. The Members may designate staff to participate in these forums, or to communicate/represent a consensus position by the Members in one or more of the forums.

Foundation staff has monitored the activities of the NPCC, BPA, PNAMP, StreamNet, Washington Monitoring Forum, Columbia River Tribes' discussions regarding the Columbia River Treaty, and others. Staff will continue to monitor forums that impact fish and wildlife in the Columbia River Basin.

***CBFWA 2012 and beyond:***



The proposed work plan and mechanisms for implementing the policy directives will significantly change how CBFWA operates in FY2012 and beyond. Policy Directives 1 and 2 will be pursued independently through the Foundation by providing the capability for BPA, NPCC, and all the fish and wildlife managers (CBFWA Members and non-Members) to establish and maintain a central staff to facilitate regional technical forums that were historically funded through CBFWA (Objectives 1-6 of this proposal). If individual co-managers or BPA and Council agree to provide funding for the technical committees or the SOTR Project, those functions will be implemented through the Foundation separate from the CBFWA facilitation function.

## Objectives & Deliverables

### Objectives

#### OBJ-1: Report Basin-Scale Fish and Wildlife Indicators and Provide Data for NPCC High Level Indicators through the Status of the Resources Project (SOTR)

Coordinate and facilitate the needs of NPCC, BPA, fish and wildlife managers, stakeholders, and other interested parties in the Columbia River Basin through the SOTR Project to ensure the reporting function for population level indicators of the Program-oriented adaptive management processes are addressed and implemented. To view the SOTR, please visit [www.cbfwa.org/sotr](http://www.cbfwa.org/sotr). Coordination elements related to this objective, as defined in the Program, include: 1) data management, 2) monitoring and evaluation, 3) developing and tracking biological objectives, 4) coordination of projects, programs, and funding sources, 5) facilitating focus workgroups on Program issues, and 6) information dissemination.

#### OBJ-2: Anadromous Fish Program Coordination

Coordinate and facilitate Program-specific efforts of anadromous fish managers, stakeholders, and other interested parties in the Columbia River Basin to ensure adaptive management processes and products are addressed and implemented. Foundation staff will coordinate and facilitate meetings and the development of work products as directed by the meeting participants. Coordination elements relevant to this objective, as defined in the Program, include: 1) data management, 2) monitoring and evaluation, 3) developing and tracking biological objectives, 4) review of technical documents and processes, 5) project proposal review, 6) coordination of projects, programs and funding sources within subbasins, 7) facilitating and participating in focus workgroups on Program issues, and 8) information dissemination.

#### OBJ-3: Columbia River Basin Lamprey Technical Workgroup

Coordinate and facilitate the efforts of lamprey managers, stakeholders, and interested parties in providing technical review, guidance, and recommendations for activities related to lamprey conservation in the Columbia River Basin. Foundation staff will coordinate and facilitate meetings and the development of work products as directed by meeting participants. Coordination elements relevant to this objective, as defined in the Program, include 1) data management, 2) monitoring and evaluation, 3) developing and tracking biological objectives, 4) review of technical documents and processes, 5) coordination of projects, programs and funding sources within subbasins, 6) facilitating and participating in focus workgroups on Program issues, and 7) information dissemination.

#### OBJ-4: Fish Screening Oversight Committee

Coordinate and facilitate the efforts of managers, stakeholders, and interested parties in providing technical information necessary to effectively plan and implement fish screening projects in the Columbia River Basin. Foundation staff will coordinate and facilitate meetings and the development of work products as directed by meeting participants. Coordination elements relevant to this objective, as defined in the Program, include: 1) review of technical documents and processes, 2) coordination of projects, programs and funding sources within subbasins, 3) facilitating and participating in focus workgroups on Program issues, and 4) information dissemination.

#### OBJ-5: Resident Fish Program Coordination

Coordinate and facilitate Program-specific efforts of resident fish managers, stakeholders, and other interested parties in the Columbia River Basin to ensure adaptive management processes and products are addressed and implemented. Foundation staff will coordinate and facilitate meetings and the development of work products as directed by the meeting participants. Coordination elements relevant to this objective, as defined in the Program, include: 1) data management, 2) monitoring and evaluation, 3) developing and tracking biological objectives, 4) review of technical documents and processes, 5) project proposal review, 6) coordination of projects, programs

#### OBJ-6: Wildlife Program Coordination

Coordinate and facilitate Program-specific efforts of wildlife managers, stakeholders, and other interested parties in the Columbia River Basin to ensure adaptive management processes and products are addressed and implemented. Foundation staff will coordinate and facilitate meetings and the development of work products as directed by the meeting participants. Coordination elements relevant to this objective, as defined in the Program, include: Data management; Monitoring and evaluation; Developing and tracking biological objectives; Review of technical documents and processes; Project proposal review; Coordination of projects, programs and funding sources within subbasins; Facilitating and participating in focus workgroups on Program issues; and Information dissemination.

#### OBJ-7: Columbia Basin Fish and Wildlife Authority

The Foundation staff will coordinate and facilitate policy level meetings of the CBFWA members, develop summary reports of activities, and generate analyses as requested to support development of letters or actions commenting on specific activities that affect fish and wildlife in the Columbia River Basin. Coordination elements, as defined in the Program, include: 1) coordination of projects, programs, and funding sources, 2) reviews of technical documents and processes, 3) facilitating and participating in focus workgroups on Program issues, and 4) information dissemination.

### Deliverables

#### DEL 1.1: Continue the development and maintenance of the SOTR website and Annual Report

Maintain the SOTR website for access to the most current fish and wildlife indicator information relating to status and trends of fish and wildlife resources in the Columbia River Basin. Data are summarized at the three scales identified in the NPCC's 2009 Program: 1) subbasin, 2) province and, 3) basin-wide. Typically, HLLs are reported at broad geographic scales, drawing upon data that are compatible across multiple scales. For instance, HLLs may use data that are rolled-up from local to larger (e.g., watershed) scales, or perhaps even further rolled-up to regional or broader scales." Metrics associated with "raw" data (i.e., collected in the field) are summarized and compiled from the local to broader scales and are rolled-up and illustrated in reporting measures in management and HLL reports.

Start: 2013 End: 2015

Budget: \$482,941

Associated Work Elements: [99. Outreach and Education](#), [115. Produce Inventory or Assessment](#), [159. Transfer/Consolidate Regionally Standardized Data](#), [161. Disseminate Raw/Summary Data and Results](#)

#### DEL 1.2: Face-to-face and on-line communications with fish and wildlife managers

The SOTR website represents a collaborative effort of the data generators (i.e., fish and wildlife managers) and data user groups (e.g., NPCC, BPA, NOAA, and other entities). A significant amount of time is invested by data generators and user groups to continue to ensure the appropriate suite of metrics is available. It is anticipated that biological objectives at the subbasin-, province-, and regional- scale will continue to be developed and finalized during the upcoming years (see NPCC staff work plan in preparation for the next amendment process). Biological objectives will describe conditions needed to reach the Program's vision and provide a measure of accomplishment for Program implementation expressed in measurable terms with discrete time frames. As objectives are adopted into the Program, the SOTR will be modified to report changes consistent with those objectives. In this way, the SOTR will provide a needed framework to support adaptive management for the Program.

Start: 2013 End: 2015

Budget: \$160,981

Associated Work Elements: [99. Outreach and Education](#), [159. Transfer/Consolidate Regionally Standardized Data](#), [175. Produce Design and/or Specifications](#), [189. Coordination-Columbia Basinwide](#)

**DEL 2.1: Continue to develop and implement the Anadromous Salmonid Monitoring Strategy (ASMS)**

The ASMS addresses a portion of the salmonid monitoring needed to inform management and policy decisions and reporting needs of the NPCC's Program, NOAA PCSRF, and NOAA's FCRPS Biological Opinion, and the individual needs of state and tribal fish managers. Specifically, the ASMS describes the coordinated strategy for collecting and sharing data needed to assess VSP parameters (abundance, population growth rate/productivity, population spatial structure, and diversity), habitat effectiveness (project effectiveness, population/watershed level effectiveness, and status and trend) and hatchery effectiveness monitoring. As some components of the ASMS are evolving the strategy for each monitoring aspect vary in level of details, as well as the strategy for data sharing and evaluation of commonly reported metrics and indicators. Identification of 2009 monitoring programs and projects, consisting primarily of those funded by BPA, that address the strategy or were modified to align with this strategy and are provided in ASMS appendices. Foundation staff, working with NPCC staff, will provide assistance by coordinating and facilitating anadromous fish managers, and others in the continued development and expansion of the ASMS. These efforts will also provide support to NOAA and BPA relative to their needs for tracking the status of salmon and steelhead abundance and productivity for FCRPS Biological Opinion evaluations.

Start: 2013 End: 2015

Budget: \$70,122

Associated Work Elements: [99. Outreach and Education](#), [115. Produce Inventory or Assessment](#), [174. Produce Plan](#), [189. Coordination-Columbia Basinwide](#)**DEL 2.2: Continue coordinating, implementing, and facilitating the Coordinated Assessments Project**

The Coordinated Assessments Project was started in 2010 with the goal of improving the timeliness, reliability and transparency of the data necessary for regional assessments and management decisions. The Columbia River Basin Collaborative Data Sharing Strategy concluded the first two phases of the Coordinated Assessments project and identified specific actions and activities for sharing three VSP indicators in the Columbia River Basin. Once progress has been achieved on these three indicators, the project will be expanded to include additional salmon and steelhead indicators as well as habitat and hatchery data. During Phase II of the Coordinated Assessments Project, the Basin-wide Data Sharing Strategy was developed based on input from participating agencies. Phase III of this project seeks to move the Basin-wide Data Sharing Strategy to sponsoring agencies for adoption and to identify priority projects that will help move their agency or tribe and the Basin towards the goals outlined in the Strategy. Specifically, Phase III will focus on the development of the Data Exchange Template (DET) which includes finalizing the detailed definition of the data to be shared. Phase III efforts will also include refining the governance process necessary for continuing work on the data management activities that support data sharing across the region and will begin addressing data sharing beyond the three pilot VSP indicators. The Coordinated Assessment Project's Phase III Workplan builds from the Phase I and Phase II workplans and identifies the next steps and expected activities required to implement the collaborative Basin-wide Data Sharing Strategy for Columbia River Salmon and Steelhead. The Phase III work plan will be completed by the time this project proposal is funded for implementation; however, it is anticipated that further development and expansion of the data sharing strategy will continue into the future. Foundation staff will continue to co-facilitate the Coordinated Assessment Project, with PNAMP and StreamNet, for the purpose of guiding development and expansion of data management systems to support reporting of HLIs for anadromous fish populations.

Start: 2013 End: 2015

Budget: \$245,429

Associated Work Elements: [159. Transfer/Consolidate Regionally Standardized Data](#), [174. Produce Plan](#), [189. Coordination-Columbia Basinwide](#)**DEL 2.3: Coordinate and facilitate habitat effectiveness evaluation discussions among anadromous fish managers**

The NPCC's Program is "a habitat-based Program," aiming "to rebuild healthy, naturally producing fish and wildlife populations by protecting, mitigating, and restoring habitats and the biological systems within them." The Program thus depends on actions in the mainstem, tributaries and estuary intended to protect or improve habitat characteristics as the way in which the Program will ultimately protect, mitigate and enhance fish and wildlife populations adversely affected by the hydrosystem. The FCRPS Biological Opinion is built on the same conceptual foundation. The analysis supporting the conclusions in the Biological Opinion includes quantitative estimates of the improvements in life-stage survival to be gained from habitat actions in all areas. For this reason, the critical programmatic issue in the NPCC's RM&E/AP Project Review, Programmatic Issue #2, was whether the collective suite of proposed projects are adequate to monitor and evaluate the effectiveness of the habitat actions, and to be able to use what we learn to adapt the implementation and management of the Program. In review of the Columbia Habitat Monitoring Program (2011-006-00), the ISRP emphasized both the need for and uncertainty about how well the habitat monitoring would be related to the monitoring of the status and trends in fish population characteristics. This is needed ultimately to verify the value of using these habitat metrics and to evaluate the effectiveness of efforts to change habitat characteristics to achieve the desired population response. The ISRP concluded by providing the following review. "We are still not sure how habitat status and trend monitoring data will be related to (integrated with) status and trends of fish population data within CHaMP watersheds to evaluate the effectiveness of specific restoration strategies or general restoration effectiveness in a geographic area (e.g., are the co-managers in a given subbasin successful in restoring stream habitat in their area?). It was unclear which entity or entities will be responsible for conducting fish status and trends monitoring at CHaMP sites, what kinds of fish data would be collected (e.g., site/reach-specific abundance sampling or fish in- fish out), and what kinds of analytical methods will be used to relate fish status and trends to habitat status and trends. CHaMP indicated that fish population surveys are not being carried out simultaneously with the habitat measurements, although it was their hope that ISEMP and other cooperators would be able to provide fish demographic data that could be associated with the habitat surveys. The linkage between fish and habitat monitoring in CHaMP watersheds requires development." The Foundation staff can help with the necessary coordination between the habitat monitoring programs and the fish monitoring programs. Building from the efforts under the Anadromous Salmonid Workshops, Foundation staff will coordinate and facilitate habitat effectiveness evaluation discussions among the anadromous fish managers to identify the best available science for predicting benefits and evaluating results in coordination with CHaMP, PNAMP, and other monitoring programs.

Start: 2013 End: 2015

Budget: \$70,722

Associated Work Elements: [99. Outreach and Education](#), [189. Coordination-Columbia Basinwide](#)**DEL 2.4: Coordinate and facilitate hatchery effectiveness evaluation discussion among anadromous fish managers**

The NPCC staff noted in their RM&E/AP Project Review Issue document, Programmatic Issue #4, that while the individual projects were all favorably reviewed by the ISRP, critical issues and uncertainties remain in regards to artificial production. The NPCC staff noted "it is thus not clear whether the production effort under the Fish and Wildlife Program, individually and collectively, is designed and coordinated sufficiently (within the program and with production activities funded outside the program) to be able to evaluate this relationship to the extent we need to and, especially, to then be able to implement hatchery reform measures to improve and protect natural-origin fish when a potential problem is identified." While recognizing that BPA and NOAA Fisheries is developing the Columbia River Hatchery Effects Evaluation Team (CRHEET, 2010-085-00), the NPCC recommended "the technical workgroup or team established for this purpose be truly a multi-agency team drawn from the federal, state and tribal agencies and Council staff, with a few unaffiliated members as well." The NPCC recommended that the Team identify a readily accessible means by which to share the data and report standardized agreed-upon metrics. Foundation staff can help coordinate and facilitate hatchery effectiveness evaluation discussions among anadromous fish managers to identifying the best available science for developing a basin-wide approach to hatchery research and reform consistent with, and in support of, the CRHEET Project and the NPCC's RM&E Category Review Programmatic Issue #4.

Start: 2013 End: 2015

Budget: \$140,245

Associated Work Elements: [99. Outreach and Education](#), [174. Produce Plan](#), [189. Coordination-Columbia Basinwide](#)**DEL 2.5: Collate and summarize information on estuary and ocean impacts**

The NPCC staff noted in their RM&E/AP Project Review Issue document, Programmatic Issue #3, that "the 2009 Fish and Wildlife Program and the 2008 FCRPS Biological Opinion significantly increased attention on the potential for salmon and steelhead survival gains in the lower Columbia River and the estuary. Project implementation and funding levels have correspondingly increased, both for habitat actions and for assessment and monitoring and evaluation elements. But along with the growing attention to the needs in the estuary there appears to be a lack of coordination and communication among different activities, especially a lack of a sufficiently developed framework for linking actions

and effectiveness monitoring and evaluation."

"Staff recommends that the Council strongly encourage the entities to complete an estuary-wide synthesis prior to the initiation of the review of habitat actions. Discussions are still occurring with the staff of Bonneville, the Corps of Engineers and others as to the precise contours of this synthesis report. But it should be a synthesis that will summarize the research and monitoring that has occurred or is occurring in the estuary, and how that information will be evaluated, and by what methods and on what reporting schedule, and then used to inform management decisions and priorities for restoration. This is necessary if the on-the ground work in the estuary (such as the CREST and CLT projects) is ever to achieve satisfactory scientific reviews and continue with minimal disruption. The synthesis should also inform the further development of the research, monitoring and evaluation implementation strategies to accompany the Council's draft Monitoring, Evaluation, Research and Reporting (MERR) Plan."

The agencies and tribes agree that further work needs to be completed to understand this portion of the salmon's life cycle. Foundation staff can help disseminate the information requested by the NPCC in their review of estuary and ocean monitoring projects, but more importantly, assist in the coordination and facilitation of ongoing discussions among the anadromous fish managers on what to do with improved information on salmon survival and habitat impacts in the estuary and ocean.

Start: 2013 End: 2015

Budget: \$35,061

Associated Work Elements: [99. Outreach and Education](#), [122. Provide Technical Review](#), [189. Coordination-Columbia Basinwide](#)

#### DEL 2.6: Coordinate and facilitate the anadromous fish managers' participation in the 2014 Program Amendment process

On November 2, 2011, the NPCC Fish and Wildlife Committee met to discuss prioritizing Program amendment preparation tasks for 2012-13. While the Fish and Wildlife Committee did not positively identify specific tasks that need to be completed and require fish and wildlife manager coordination, their discussion did alert the region that a Program amendment process will occur in 2014 and regional input will be solicited. The Fish and Wildlife Committee and NPCC staff also discussed existing Program goals and objectives. Following is a list of potential issues that will be addressed in the next Program amendment process: 1) Overview of biological objectives, 1a - Coordination with the FCRPS BiOp, other BiOps and Recovery Plans, 1b. Relationship to the MERR and HLIs; 2) Subbasin Plans, 2a. Status and future plans for 'mining' the plans and making the information easily accessible on the Council's website, 2b. Updates to subbasin plans; 3) Habitat restoration, consider ties to 3a. CHaMP, ISEMP, IMVs and Tetra Tech's work for WA, OR and BPA, 3b. Geographic review and Expert Panels; 4) Supplementation, 4a. Wild and hatchery fish interactions, 4b. Idaho Supplementation Study and Hatchery Scientific Review Group results, 4c. Council criteria resulting from the recent RM&E / AP category review; 5) Predation, 5a. Current conditions, 5b. Native fish versus non-native fish including lake trout; 6) Integration of the ISAB's Food Web report into the Council's evaluation and decision-making processes; 7) Update the Council's Fish and Wildlife Research Plan.

Foundation staff will coordinate and facilitate the anadromous fish managers' participation in the 2014 Program Amendment process by facilitating the development of decision support tools and efforts to improve transparency in data collection, data management, and reporting that support adaptive management and address the priority issues identified by NPCC in their call for amendment recommendations.

Foundation staff will also assist BPA in facilitating standardized business practices that benefit both BPA project administration but also anadromous fish managers in the implementation of their projects. Examples of products requiring agency and tribe participation include: PISCES work element definitions, TAURUS project proposal form, anadromous fish project reporting, etc.

Start: 2013 End: 2015

Budget: \$140,245

Associated Work Elements: [99. Outreach and Education](#), [122. Provide Technical Review](#), [189. Coordination-Columbia Basinwide](#)

#### DEL 3.1: Continued updating and implementation of a Pacific Lamprey Monitoring Strategy to coordinate projects and direct data management

The Lamprey Monitoring Strategy will address a portion of the lamprey monitoring needed to inform management and policy decisions and reporting needs of the NPCC's Program, the USFWS Lamprey Conservation Initiative, and the Tribal Lamprey Restoration Plan. Specifically, the Lamprey Monitoring Strategy will describe the coordinated strategy for collecting and sharing data needed to assess status of Pacific lamprey (e.g., abundance, distribution, growth rate/productivity, etc.), as well as effectiveness of translocation and supplementation efforts.

Foundation staff, working with NPCC staff, will continue to provide assistance by coordinating and facilitating lamprey managers and others in the continued development and expansion of the Lamprey Monitoring Strategy. These efforts will also provide support to the USFWS, Tribes, and BPA relative to their needs for tracking the status of Pacific lamprey.

Start: 2013 End: 2015

Budget: \$82,098

Associated Work Elements: [99. Outreach and Education](#), [115. Produce Inventory or Assessment](#), [174. Produce Plan](#), [189. Coordination-Columbia Basinwide](#)

#### DEL 3.2: Summarize progress on critical uncertainties previously identified and develop updated and revised Critical Uncertainties document.

In April 2005, the LTWG completed the report "Critical Uncertainties for Lamprey in the Columbia River Basin". This document, through consensus of workgroup members, captured and prioritized the most urgent critical uncertainties related to lamprey in the Columbia River Basin. The document is intended to be a "living document" that will be updated as knowledge and progress is gained in lamprey conservation.

The LTWG will summarize progress on critical uncertainties identified in the 2005 document, and any subsequent drafts. Foundation staff, working with members of the LTWG, will provide assistance by coordinating and facilitating lamprey managers and others in the continued development and updating of the document. Foundation staff will prepare sections of the document for review by the LTWG as assigned. These efforts will also provide support to the USFWS, Tribes, and BPA relative to their needs for tracking the status of Pacific lamprey.

Start: 2013 End: 2015

Budget: \$54,732

Associated Work Elements: [115. Produce Inventory or Assessment](#), [122. Provide Technical Review](#), [174. Produce Plan](#)

#### DEL 3.3: Continued development of technical documents providing information and recommendations to lamprey managers, stakeholders, and interested parties.

The LTWG regularly develops technical documents to provide information and recommendations to assist lamprey managers and others. One such document recently completed as a report to the region and subsequently submitted for publication in a peer-review journal is "Translocating Adult Pacific Lamprey within the Columbia River Basin: State of the Science".

Another technical report being developed is a document to (1) identify potential research metrics that quantify indirect or direct effects on survival and fitness of juvenile and adult Pacific lamprey related to up- or downstream passage at mainstem dams, (2) determine which of the metrics are measurable with scientific rigor and quantify effects of biological relevance, and (3) develop and recommend basin-wide passage standards or objectives for metrics deemed as measurable and biologically relevant. The passage metrics document is a long-term undertaking, which will require years of information before standards for passage can be recommended.

An additional product will be a synthesis report describing the efforts, results, and implications of all ongoing lamprey projects funded through the Program. The synthesis report will be developed and updated every 3 years. Other technical products will be undertaken as recommended by lamprey managers or others.

Foundation staff, working with the USFWS and members of the LTWG, will provide assistance by coordinating and facilitating lamprey managers and others in the continued development and updating of these technical documents. Foundation staff will prepare sections of the documents for review by the LTWG as assigned.

Start: 2013 End: 2015

Budget: \$136,830

Associated Work Elements: [115. Produce Inventory or Assessment](#), [122. Provide Technical Review](#), [174. Produce Plan](#), [175. Produce Design and/or Specifications](#), [183. Produce Journal Article](#)

**DEL 4.1: Screen and Passage Workshops and Training Courses**

The FSOC has organized the biennial workshop "Pacific Northwest Fish Screening and Passage Workshop" for almost 20 years. Location of the workshop has rotated among Oregon, Washington, and Idaho, and is being held in Montana for the first time in 2012. The workshop includes two days of technical presentations and one day dedicated to visiting screen and passage facilities. Technical presentations include screen technicians providing information on operations and maintenance, biologists presenting information on effectiveness of structures, and engineers explaining hydraulics. Many screening and passage professionals look forward to the workshop, and attendance is usually about 80-100.

In 2010 the FSOC worked with NMFS to organize and present a continuing education course on passage and screen training. The course was designed as an interface between engineers and fish biologists. Unlike the biennial workshop, the course was taught mostly by NMFS engineers and a few other agency personnel. The course included three days of lectures, and a full-day field trip to facilities demonstrating the principles taught during the lectures. Cost of the course was about 1/4 that of similar courses offered through the private sector. Demand for the course exceeded the planned capacity of 40.

Because of the success of the workshop and the training course, both will continue to be offered on a biennial basis, with one occurring each year. Foundation staff, working with members of the FSOC and others, will provide assistance by coordinating and facilitating the continued development and implementation of the workshop and training course.

Start: 2013 End: 2015

Budget: \$83,520

Associated Work Elements: [99. Outreach and Education](#), [161. Disseminate Raw/Summary Data and Results](#), [189. Coordination-Columbia Basinwide](#)

**DEL 4.2: Conduct periodic technical review of all existing and proposed screen criteria for anadromous salmonids**

In 2011 the FSOC provided a thorough review and eventual technical endorsement of the NMFS passage criteria for horizontal fish screens. Not all types of horizontal screens were encompassed in the criteria that were developed and endorsed; therefore, some screen types remain "experimental". When more information is available on the operation of these screens, the FSOC will again review updated NMFS draft criteria.

The FSOC will also undertake periodic reviews of other existing criteria for salmonid passage and provide recommendations or endorsement as appropriate. Foundation staff, working with members of the FSOC and others, will provide assistance by coordinating and facilitating the reviews of passage criteria.

Start: 2013 End: 2015

Budget: \$41,760

Associated Work Elements: [122. Provide Technical Review](#), [175. Produce Design and/or Specifications](#), [189. Coordination-Columbia Basinwide](#)

**DEL 4.3: Implement review of existing and development of new screen criteria pertinent to species other than anadromous salmonids.**

The FSOC has developed a list of screening and passage issues that are in need of further attention. This list includes but is not limited to (1) lamprey screening and passage, (2) areas of concern for non-anadromous locales (e.g., Montana), (3) conflicts between juvenile upstream passage criteria and adult anadromous salmonid criteria, (4) entrainment into diversions, and (5) awareness, education, and outreach.

The FSOC has worked with the LTWG to better understand requirements for lamprey. As results from studies now being implemented become available, the FSOC will develop and provide recommendations for lamprey screening and passage criteria at diversions. The FSOC was recently begun to consider the implications of conflicting juvenile and adult criteria. The FSOC is working with NMFS and state agency passage coordinators to standardize the process for establishing criteria at facilities.

Foundation staff, working with members of the FSOC and others, will provide assistance by coordinating and facilitating the development of recommendations or other technical products regarding screening or passage concerns addressed by the FSOC.

Start: 2013 End: 2015

Budget: \$41,760

Associated Work Elements: [122. Provide Technical Review](#), [175. Produce Design and/or Specifications](#), [189. Coordination-Columbia Basinwide](#)

**DEL 5.1: Continue developing and implementing monitoring strategies for resident fish**

The resident fish monitoring implementation strategies address a portion of the resident fish monitoring needed to inform management and policy decisions and reporting needs of the NPCC's Program and the individual needs of state and tribal fish managers. Specifically, the strategies describe the coordinated strategy for collecting and sharing data needed to assess resident fish population parameters, habitat effectiveness, and hatchery effectiveness monitoring. As some components of the resident fish monitoring implementation strategies are evolving, the strategy for each monitoring aspect vary in level of details, as well as the strategy for data sharing and evaluation of commonly reported metrics and indicators.

Foundation staff, working with NPCC staff, will provide assistance by coordinating and facilitating resident fish managers, and others in the continued development and expansion of the strategies. These efforts will also provide support to USFWS and BPA relative to their needs for tracking the status of resident fish abundance and productivity for. Specifically, the resident fish managers will continue to develop and implement monitoring strategies for redband/rainbow trout, westslope cutthroat trout, Yellowstone cutthroat trout, bull trout, kokanee, burbot, white sturgeon, largemouth bass, and freshwater mussels. Included in this effort is the development of a process to share data and report the status of HLI that can be used to assess the effectiveness of projects funded through the Program.

Foundation staff will also assist BPA in facilitating standardized business practices that benefit BPA project administration and resident fish managers in the implementation of their projects. Examples of products requiring agency and tribe participation include: PISCES work element definitions, TAURUS project proposal form, resident fish project reporting, etc.

Start: 2013 End: 2015

Budget: \$350,612

Associated Work Elements: [99. Outreach and Education](#), [115. Produce Inventory or Assessment](#), [174. Produce Plan](#), [189. Coordination-Columbia Basinwide](#)

**DEL 5.2: Finalize resident fish loss assessment methodologies**

The NPCC's 2009 Program provides for resident fish mitigation where construction and inundation losses have been assessed and quantified by the appropriate agencies and tribes. As the Program states, resident fish habitat loss assessments have generally been quantified in terms of acres or stream miles of key habitat, for [native] focal species, inundated or blocked. The Program further provides that losses are most effectively mitigated by acquiring interests in real property for the primary purpose of preserving, enhancing, restoring, and/or creating fish and wildlife habitat equal to the quantity and quality of habitat lost.

Despite the mitigation provisions, the Program does not prescribe specific methodology for the calculation of lost resident fish habitat due to construction and inundation. Because of this omission, resident fish managers, working through the Resident Fish Focus Workgroup, developed the following draft methodology to be used as a "starting point" to quantify inundated resident fish habitat.

The Resident Fish Focus Workgroup recommended that the length or area of the natural aquatic habitat, inundated following impoundment, should be calculated using GIS technology or stream surveys. Waterway length or area inundated should be measured to the full- pool elevation. In addition, if a road system was built, in association with the construction of the reservoir, a survey of culverts and bridges must be performed to ensure they provide for adequate passage. If the culverts or bridges function as barriers to passage and there is no natural



barrier between the full pool elevation and the culvert/bridge, then that length of stream above the culvert and below any natural barrier should be included in the survey.

The selection of a method (i.e., area or length) should be at the discretion of the entities involved in performing the survey; however, to standardize the process and ensure a consistent level of accuracy across the basin, the following two steps should be included in all surveys: 1), GIS surveys performed at a scale of 1:12,000 and 2) stream order identified for all waterways inundated. For smaller streams (e.g., mainstem tributaries), length inundated, by stream order, should be identified and then summed to provide total length of a specific stream order lost due to inundation. For mainstem sections (i.e., Columbia River, Snake River, etc.), length or area could be used to quantify inundation losses. To calculate area lost in the tributaries or mainstem, average width along with the length of the mainstem section inundated should be used to calculate the acreage of inundated aquatic habitat.

Following the completion of the methodology, discussions with NPCC staff resulted in the NPCC staff offering to convene a set of workshops, similar to the RM&E workshops, prior to the Resident Fish Categorical Review. Within that process, the issue of loss assessment methodology and implementation and inclusion in the Program pursuant to categorical reviews would be addressed. These workshops have yet to be convened; however, Foundation staff, working with NPCC staff, will provide assistance by coordinating and facilitating resident fish managers, and others to convene the workshops to finalize the methodologies.

Start: 2013 End: 2015

Budget: \$70,123

Associated Work Elements: [99. Outreach and Education](#), [115. Produce Inventory or Assessment](#), [189. Coordination-Columbia Basinwide](#)

#### **DEL 5.3: Prepare and support the resident fish managers for their participation in the upcoming Program amendment process**

On November 2, 2011, the NPCC's Fish and Wildlife Committee met to discuss prioritizing Program amendment preparation tasks for 2012-13. While the committee did not positively identify specific tasks that need to be completed and require fish and wildlife manager coordination, their discussion did alert the region that a Program amendment process will occur in 2014 and regional input will be solicited. The Fish and Wildlife Committee and NPCC staff also discussed existing Program goals and objectives. Following is a list of potential issues relevant to the resident fish managers that will be addressed in the next Program amendment process: 1) Overview of biological objectives - relationship to the MERR and HLIs; 2) Subbasin Plans, 2a. Status and future plans for 'mining' the plans and making the information easily accessible on the Council's website, 2b. Updates to subbasin plans; 5) Predation, 5a. Current conditions, 5b. Native fish versus non-native fish including lake trout; 6) Integration of the ISAB's Food Web report into the NPCC's evaluation and decision-making processes; and 7) Update the NPCC's Fish and Wildlife Research Plan.

Foundation staff will coordinate and facilitate the resident fish managers' participation in the 2014 Program Amendment process by facilitating the development of decision support tools and efforts to improve transparency in data collection, data management, and reporting that support adaptive management and address the priority issues identified by NPCC in their call for amendment recommendations.

Start: 2013 End: 2015

Budget: \$280,490

Associated Work Elements: [122. Provide Technical Review](#), [189. Coordination-Columbia Basinwide](#)

#### **DEL 6.1: Continue to coordinate and facilitate the development of the Wildlife Monitoring Implementation Strategy to report wildlife HLIs for the Program**

Coordinate and facilitate meetings with NPCC and BPA staffs, wildlife managers, stakeholders, and other interested parties to ensure full participation for: 1) developing HLI and Fish and Wildlife Program Indicators for wildlife, 2) coordinating monitoring projects for data sharing and management, and 3) prioritizing reporting of HLIs to support basin-wide decision making. Coordinate and facilitate efforts to edit/publish/maintain future iterations of the Wildlife Monitoring Implementation Strategy as new information is acquired and improved data processes are developed.

Activities under this deliverable include coordinating projects for future ISRP reviews, coordinating oversight of the Regional HEP Team and Northwest Habitat Institute IBIS projects through the wildlife focus workgroup, to ensure consistency with the WMIS and a regional RM&E approach for wildlife to address issues identified in the NPCC's Wildlife Category Review Decision Document, July 2006.

Start: 2013 End: 2015

Budget: \$75,487

Associated Work Elements: [99. Outreach and Education](#), [115. Produce Inventory or Assessment](#), [174. Produce Plan](#), [189. Coordination-Columbia Basinwide](#)

#### **DEL 6.2: Coordinate and facilitate the development of standard business practices and protocols for BPA-funded wildlife mitigation projects**

The BPA funded wildlife mitigation projects have unique operating requirements. Foundation staff will assist BPA in facilitating standardized business practices that benefit BPA's project administration and wildlife managers in the management of BPA acquired lands. Examples of current and future products requiring agency and tribe participation include: Land Management Plan template, BPA funded land acquisition handbook, PISCES work element definitions, TAURUS project proposal form, coordinate invasive species management, wildlife project reporting, etc.

Start: 2013 End: 2015

Budget: \$113,230

Associated Work Elements: [99. Outreach and Education](#), [115. Produce Inventory or Assessment](#), [122. Provide Technical Review](#), [175. Produce Design and/or Specifications](#), [189. Coordination-Columbia Basinwide](#)

#### **DEL 6.3: Coordinate and facilitate the wildlife managers' participation in the 2014 Program Amendment process**

On November 2, 2011, the NPCC's Fish and Wildlife Committee met to discuss prioritizing Program amendment preparation tasks for 2012-13. While the committee did not positively identify specific tasks that need to be completed and require fish and wildlife manager coordination, their discussion did alert the region that a Program amendment process will occur in 2014 and regional input will be solicited. The Fish and Wildlife Committee and NPCC staff also discussed existing Program goals and objectives. Following is a list of potential issues relevant to the wildlife agencies and tribes that will be addressed in the next Program amendment process: 1) Overview of biological objectives - relationship to the MERR and HLIs; 2) Subbasin Plans, 2a. Status and future plans for 'mining' the plans and making the information easily accessible on the Council's website, 2b. Updates to subbasin plans; 6) Integration of the ISAB's Food Web report into the Council's evaluation and decision-making processes; and 7) Update the Council's Fish and Wildlife Research Plan.

The Foundation staff will coordinate and facilitate the wildlife fish managers' participation in the 2014 Program Amendment process by facilitating the development of decision support tools and efforts to improve transparency in data collection, data management, and reporting that support adaptive management and address the priority issues identified by NPCC in their call for amendment recommendations.

Start: 2013 End: 2015

Budget: \$188,717

Associated Work Elements: [122. Provide Technical Review](#), [189. Coordination-Columbia Basinwide](#)

#### **DEL 7.1: Facilitate meetings and provide information updates and analyses for the CBFWA Members**

Coordinate and facilitate meetings of the Members and Members Advisory Group (MAG) to provide information updates and analyses for the CBFWA Members on current activities of various forums within the Columbia River Basin that may impact Members' interests. Provide support to CBFWA Members' staff regarding issues related to BPA-funded project implementation (e.g., proposal development, annual reports, interactions with PISCES and Taurus, etc.).

Start: 2013 End: 2015

Budget: \$628,502

Associated Work Elements: [99. Outreach and Education](#), [115. Produce Inventory or Assessment](#), [122. Provide Technical Review](#), [189. Coordination-Columbia Basinwide](#)

#### **DEL 7.2: Attend and participate in meetings and activities that relate to fish and wildlife management in the Columbia River Basin**

Foundation staff will continue to participate in regional meetings (e.g., NPCC, Fish and Wildlife Committee, BPA, PNAMP, etc.) to ensure Members are provided with the most current information and are kept abreast of the status of the various Program processes. It is anticipated that staff may attend up to 50 meetings per year that are not facilitated through the Foundation. Staff will prepare summary notes of meetings when appropriate.

Start: 2013 End: 2015

Budget: \$261,276

Associated Work Elements: [99. Outreach and Education](#), [115. Produce Inventory or Assessment](#), [122. Provide Technical Review](#), [189. Coordination-Columbia Basinwide](#)

#### DEL 7.3: Maintain CBFWA website and archive

Continue to maintain the CBFWA website including the Fish and Wildlife Directory, Fish and Wildlife Calendar, and Fish and Wildlife Jobs List. Also maintain MAG and Members web pages to provide access to all meeting agendas, action notes, and supporting material. The website is open to the public and provides information that is useful for Members and non-Members.

Start: 2013 End: 2015

Budget: \$157,126

Associated Work Elements: [99. Outreach and Education](#), [189. Coordination-Columbia Basinwide](#)

#### DEL 7.4: Time and travel support to CBFWA Members for participation in regional coordination activities

Continue to provide and manage sub-contracts through the Foundation to provide travel and participation support to CBFWA Members for participation in regional activities related to development and implementation of the Program. Records will be maintained of Member participation in CBFWA meetings and consensus documents and activities approved by the Membership. Hourly compensation is allowed while engaged in any of CBFWA objectives listed on the time sheet. Travel reimbursement is allowed for regional travel effecting CBFWA activities. Travel claims and timesheets must be signed by the claimant and approved by the contract supervisor before submission to the Foundation for reimbursement. Supporting documentation verifying attendance may be submitted with the timesheet or be available upon request. Timesheets and travel claim forms, information and completion instructions are available on the CBFWA website under the Services menu, CBFWA Forms.

Start: 2013 End: 2015

Budget: \$804,726

Associated Work Elements: [99. Outreach and Education](#), [115. Produce Inventory or Assessment](#), [122. Provide Technical Review](#), [156. Develop RM&E Methods and Designs](#), [174. Produce Plan](#), [189. Coordination-Columbia Basinwide](#)

### How the Deliverables serve to achieve the Objectives

OBJ-1. Report Basin-Scale Fish and Wildlife Indicators and Provide Data for NPCC High Level Indicators through the Status of the Resources Project (SOTR)

DEL 1.1: Continue the development and maintenance of the SOTR website and Annual Report

*How DEL 1.1 helps achieve OBJ-1:* The SOTR website provides access to the most current information on fish and wildlife resources status and trends in the Columbia River Basin. The NPCC Fish and Wildlife Program indicators are summarized at the basin-scale. The data are stored in spreadsheets that can be easily transferred, upon request, to support the NPCC's HLI Report.

DEL 1.2: Face-to-face and on-line communications with fish and wildlife managers

*How DEL 1.2 helps achieve OBJ-1:* A key to maintaining the SOTR Project is to facilitate communication among the data providers (StreamNet, Fish Passage Center, individual fish and wildlife managers, and others) to ensure the most current information is available and to communicate with data users to ensure that the data provided on the website and in the reports are the data needed by regional entities for basin-wide reporting.

OBJ-2. Anadromous Fish Program Coordination

DEL 2.1: Continue to develop and implement the Anadromous Salmonid Monitoring Strategy (ASMS)

*How DEL 2.1 helps achieve OBJ-2:* The ASMS is a coordinated strategy developed by Columbia River Basin fish managers for monitoring and evaluation of the tributary life cycle component of wild and hatchery salmonids and their habitat above Bonneville Dam. This strategy does not summarize the current knowledge of these fish, such as, habitat requirements, status, habitat impairments and limiting factors, as these are summarized within the NPCC's subbasin plans, NOAA recovery plans, and in individual project reports. This strategy focuses on what monitoring is conducted and how the information collected is evaluated to inform management and policy questions. In fulfilling this role, the current strategy is considered a component of the draft Anadromous Fish Research Monitoring and Evaluation Implementation Strategy. Other components of the MERR Plan's Anadromous Fish Implementation Strategy will address additional life cycle components as well as include non-listed anadromous fish and will be developed under this deliverable.

DEL 2.2: Continue coordinating, implementing, and facilitating the Coordinated Assessments Project

*How DEL 2.2 helps achieve OBJ-2:* This deliverable carries forward from the ASMS, and implements a data sharing system to support reporting of high priority data and information obtained through the monitoring strategy. Data sharing is the key to RM&E as priority data must be made available for reporting and decision making to support adaptive management products and processes.

DEL 2.3: Coordinate and facilitate habitat effectiveness evaluation discussions among anadromous fish managers

*How DEL 2.3 helps achieve OBJ-2:* Facilitation of discussions among the entities monitoring salmon and steelhead, in relation to habitat effectiveness evaluations, will help bring greater clarity to this effort. This deliverable will not replace the coordination efforts of the CHaMP project, or the PNAMP effort to develop habitat data sharing systems, but will enhance those efforts by aligning the anadromous fish managers in their efforts to define habitat effectiveness methods and metrics.

DEL 2.4: Coordinate and facilitate hatchery effectiveness evaluation discussion among anadromous fish managers

*How DEL 2.4 helps achieve OBJ-2:* Facilitation of discussions among the salmon and steelhead management entities focused on hatchery effectiveness evaluations will help move the CHREET project forward. This deliverable will not replace the coordination efforts of the CHREET project but will enhance those efforts by aligning the anadromous fish managers in their efforts to define basinwide hatchery effectiveness methods and metrics.

DEL 2.5: Collate and summarize information on estuary and ocean impacts

*How DEL 2.5 helps achieve OBJ-2:* Facilitation of discussions among the entities monitoring salmon and steelhead, in relation to estuary habitat effectiveness evaluations. This deliverable will not replace work performed by estuary teams, but will enhance those efforts by aligning the anadromous fish managers in their efforts to define estuary habitat effectiveness methods and metrics.

DEL 2.6: Coordinate and facilitate the anadromous fish managers' participation in the 2014 Program Amendment process

*How DEL 2.6 helps achieve OBJ-2:* This deliverable will be led by NPCC staff, BPA, and the fish and wildlife managers in setting priority products and processes necessary to support the adaptive management aspects of the Program amendment process.

OBJ-3. Columbia River Basin Lamprey Technical Workgroup

DEL 3.1: Continued updating and implementation of a Pacific Lamprey Monitoring Strategy to coordinate projects and direct data management

*How DEL 3.1 helps achieve OBJ-3:* The formally-adopted Statement of Purpose of the LTWG includes: 1. Identify critical uncertainties regarding lamprey conservation: Members of the Workgroup will establish lamprey research, monitoring, and evaluation needs. 2. Prioritize research: Members of the Workgroup will review new proposals and existing projects. 3. Disseminate technical information: The Workgroup will act as a focal point for disseminating technical information and providing guidance on lamprey issues. This deliverable addresses Purpose 3 of the LTWG. The Pacific Lamprey Monitoring Strategy is a coordinated strategy developed by Columbia River Basin lamprey managers for monitoring and evaluation of the tributary life cycle component of Pacific lamprey and their habitat in the Columbia River Basin.



This strategy will focus on the monitoring that is conducted and how the information collected is evaluated to inform management and policy questions. In fulfilling this role, the strategy will be a component of the draft MERR Plan's Anadromous Fish Research Monitoring and Evaluation Implementation Strategy.

DEL 3.2: Summarize progress on critical uncertainties previously identified and develop updated and revised Critical Uncertainties document.

*How DEL 3.2 helps achieve OBJ-3:* The formally-adopted Statement of Purpose of the LTWG includes: 1. Identify critical uncertainties regarding lamprey conservation: Members of the Workgroup will establish lamprey research, monitoring, and evaluation needs. 2. Prioritize research: Members of the Workgroup will review new proposals and existing projects. 3. Disseminate technical information: The Workgroup will act as a focal point for disseminating technical information and providing guidance on lamprey issues. This deliverable addresses Purpose 1 of the LTWG. One of the products of the LTWG will produce is an update of the 2005 document 'Critical Uncertainties for Lamprey in the Columbia River Basin'. It is important that this document fulfill its purpose of being a "living document" to gauge progress and guide lamprey-related activities.

DEL 3.3: Continued development of technical documents providing information and recommendations to lamprey managers, stakeholders, and interested parties.

*How DEL 3.3 helps achieve OBJ-3:* The formally-adopted Statement of Purpose of the LTWG includes: 1. Identify critical uncertainties regarding lamprey conservation: Members of the Workgroup will establish lamprey research, monitoring, and evaluation needs. 2. Prioritize research: Members of the Workgroup will review new proposals and existing projects. 3. Disseminate technical information: The Workgroup will act as a focal point for disseminating technical information and providing guidance on lamprey issues. This deliverable addresses Purpose 3 of the LTWG. Technical products recently completed include "Translocating Adult Pacific Lamprey within the Columbia River Basin: State of the Science". Additional products under development include the development of Pacific lamprey passage metrics and a synthesis report summarizing ongoing lamprey projects.

OBJ-4. Fish Screening Oversight Committee

DEL 4.1: Screen and Passage Workshops and Training Courses

*How DEL 4.1 helps achieve OBJ-4:* Primary purposes of the FSOC include (1) facilitating discussion among fish managers of the technical merits and implications of projects and issues, and (2) providing a forum for fish screening concerns and information exchange among federal, state, tribal and private entities with fish interests in the Columbia River Basin. This deliverable addresses Purpose 2 of the FSOC. Workshops and training courses have facilitated discussion and information transfer throughout the Columbia River Basin.

DEL 4.2: Conduct periodic technical review of all existing and proposed screen criteria for anadromous salmonids

*How DEL 4.2 helps achieve OBJ-4:* Primary purposes of the FSOC include (1) facilitating discussion among fish managers of the technical merits and implications of projects and issues, and (2) providing a forum for fish screening concerns and information exchange among federal, state, tribal and private entities with fish interests in the Columbia River Basin. This deliverable addresses Purpose 1 of the FSOC.

DEL 4.3: Implement review of existing and development of new screen criteria pertinent to species other than anadromous salmonids.

*How DEL 4.3 helps achieve OBJ-4:* Primary purposes of the FSOC include (1) facilitating discussion among fish managers of the technical merits and implications of projects and issues, and (2) providing a forum for fish screening concerns and information exchange among federal, state, tribal and private entities with fish interests in the Columbia River Basin. This deliverable addresses Purpose 1 of the FSOC.

OBJ-5. Resident Fish Program Coordination

DEL 5.1: Continue developing and implementing monitoring strategies for resident fish

*How DEL 5.1 helps achieve OBJ-5:* Resident Fish Regional Coordination includes the associated adaptive management processes and products. One of these products is the continued development, updating, and implementation of monitoring strategies for resident fish.

DEL 5.2: Finalize resident fish loss assessment methodologies

*How DEL 5.2 helps achieve OBJ-5:* Resident Fish Regional Coordination includes the associated adaptive management processes and products. One of these products is to finalize loss assessment methodologies and working with the NPCC, convene a series of workshops to gain region- and agency-wide support.

DEL 5.3: Prepare and support the resident fish managers for their participation in the upcoming Program amendment process

*How DEL 5.3 helps achieve OBJ-5:* Resident Fish Regional Coordination includes the associated adaptive management processes and products. One of these products is to prepare the resident fish managers for their preparation in the 2014 Program amendment process.

OBJ-6. Wildlife Program Coordination

DEL 6.1: Continue to coordinate and facilitate the development of the Wildlife Monitoring Implementation Strategy to report wildlife HLI for the Program

*How DEL 6.1 helps achieve OBJ-6:* Foundation staff will facilitate meetings to address the needs identified by NPCC and ISRP. Facilitation will include maintaining a mailing list for interested parties, collaborating with the wildlife chair to develop and distribute agendas prior to the meetings, record and distribute meeting notes, and provide a web site to archive and provide access to all supporting documentation.

DEL 6.2: Coordinate and facilitate the development of standard business practices and protocols for BPA-funded wildlife mitigation projects

*How DEL 6.2 helps achieve OBJ-6:* This deliverable will be led by NPCC staff, BPA, and the fish and wildlife managers in setting priority products and processes necessary to support the adaptive management aspects of the Program amendment process.

DEL 6.3: Coordinate and facilitate the wildlife managers' participation in the 2014 Program Amendment process

*How DEL 6.3 helps achieve OBJ-6:* This stand-alone objective, regional wildlife coordination, includes the associated adaptive management processes and products. One of these products is to prepare and support the wildlife managers for their participation in the upcoming Program Amendment process by facilitating better decision support tools and greater transparency in data collection, data management, and reporting.

OBJ-7. Columbia Basin Fish and Wildlife Authority

DEL 7.1: Facilitate meetings and provide information updates and analyses for the CBFWA Members

*How DEL 7.1 helps achieve OBJ-7:* Specific tasks that will be provided through the Foundation include: 1) monthly reports from Foundation staff to the appropriate Member representatives regarding activities that occur within the Columbia River Basin that affect fish and wildlife management, 2) development of white papers, analyses, and recommendations to support collaborative comments and decision making on policies and processes that affect the CBFWA Members' interests in the Columbia River Basin, 3) assistance to Member project leaders in navigating BPA and Council funding and review processes, 4) facilitation of an annual meeting of the CBFWA Members, and 5) a CBFWA historian and archive of all historic CBFWA documents and records.

DEL 7.2: Attend and participate in meetings and activities that relate to fish and wildlife management in the Columbia River Basin

*How DEL 7.2 helps achieve OBJ-7:* Foundation staff attends meetings to stay informed of regional activities and to contribute institutional memory to regional conversations. In some cases, the staff may be asked to speak on behalf of the CBFWA Members, but in most cases staff is there to listen and report back to the CBFWA Members.

DEL 7.3: Maintain CBFWA website and archive

*How DEL 7.3 helps achieve OBJ-7:* The Foundation relies on email and web access to facilitate communications and transfer of meeting materials. The website also serves as the mechanism for hosting web-enabled meetings to control meeting costs and improve efficiency.

DEL 7.4: Time and travel support to CBFWA Members for participation in regional coordination activities

*How DEL 7.4 helps achieve OBJ-7:* The Foundation enters into contracts with the CBFWA Members for reimbursement of time and travel associated with Program activities. Due to the Foundation's indirect rate, this activity saves the Program money by ensuring the maximum amount of regional coordination funding is used by Members' representatives for coordination activities rather than going towards overhead costs at the agencies and tribes.

**Project History**

**Financials**

**Budgets**

| Expense                      | SOY         | Working Budget | Contracted Amount | Modified Contract Amount | Expenditures * |
|------------------------------|-------------|----------------|-------------------|--------------------------|----------------|
| FY2006                       | \$1,852,515 | \$2,178,838    | \$1,925,729       | \$1,865,939              | \$1,687,689    |
| General                      | \$0         | \$2,001,615    | \$1,769,094       | \$1,714,167              | \$1,550,415    |
| General - Within Year        | \$0         | \$177,223      | \$156,636         | \$151,772                | \$137,274      |
| FY2007                       | \$2,071,450 | \$2,071,450    | \$1,921,931       | \$1,948,396              | \$1,933,144    |
| General                      | \$0         | \$2,071,450    | \$1,921,931       | \$1,948,396              | \$1,933,144    |
| FY2008                       | \$0         | \$1,869,650    | \$3,177,025       | \$1,627,169              | \$1,773,439    |
| General                      | \$0         | \$1,869,650    | \$3,177,025       | \$1,627,169              | \$1,773,439    |
| FY2009                       | \$0         | \$1,558,057    |                   | \$1,583,181              | \$1,952,386    |
| General                      | \$0         | \$1,558,057    |                   | \$1,583,181              | \$1,952,386    |
| BiOp FCRPS 2008 (non-Accord) | \$0         | \$0            |                   | \$0                      | \$0            |
| FY2010                       | \$1,681,355 | \$1,613,385    | \$1,426,229       | \$1,426,229              | \$1,216,222    |
| General                      | \$1,681,355 | \$1,613,385    | \$1,426,229       | \$1,426,229              | \$1,216,222    |
| FY2011                       | \$1,653,720 | \$1,587,720    | \$1,587,719       | \$1,587,719              | \$1,383,613    |
| General                      | \$1,653,720 | \$1,587,720    | \$1,587,719       | \$1,587,719              | \$1,383,613    |
| FY2012                       | \$1,587,719 | \$1,189,586    | \$1,189,586       | \$1,189,586              | \$140,432      |
| General                      | \$1,587,719 | \$1,189,586    | \$1,189,586       | \$1,189,586              | \$140,432      |

Total Expense Budget (FY2004-FY2011): \$14,511,599; Total Expense Expenditures (FY2004-FY2011) \*: \$13,541,752

No Capital budgets

\* Expenditures data includes accruals and are based on data through 31-Oct-2011

Project Cost Share: **FY2011** 31 % **FY2010** 38 % **FY2009** 44 % **FY2008** 24 % **FY2007** 38 %

| Fiscal Year | Cost Share Partner                                     | Total Proposed Contribution | Total Confirmed Contribution |
|-------------|--|-----------------------------|------------------------------|
| FY2010      | Shoshone-Bannock Tribes                                |                             | \$50,000                     |
| FY2010      | Shoshone-Paiute Tribes                                 |                             | \$105,000                    |
| FY2010      | Salish and Kootenai Confederated Tribes                |                             | \$12,000                     |
| FY2010      | Nez Perce Tribe  |                             | \$125,000                    |
| FY2010      | Oregon Department Of Fish and Wildlife (ODFW)          |                             | \$97,000                     |
| FY2010      | Washington Department of Fish and Wildlife (WDFW)      |                             | \$93,000                     |
| FY2010      | Yakama Confederated Tribes                             |                             | \$83,000                     |
| FY2010      | US Fish and Wildlife Service (USFWS)                   |                             | \$94,000                     |
| FY2010      | Umatilla Confederated Tribes (CTUIR)                   |                             | \$35,000                     |
| FY2010      | Upper Columbia United Tribes (UCUT)                    |                             | \$0                          |
| FY2010      | Columbia River Inter-Tribal Fish Commission (CRITFC)   |                             | \$49,000                     |
| FY2010      | Colville Confederated Tribes                           |                             | \$0                          |
| FY2010      | Coeur D'Alene Tribe                                    |                             | \$0                          |
| FY2010      | (Unspecified Org)                                      |                             | \$0                          |
| FY2010      | Burns-Paiute Tribe                                     |                             | \$25,000                     |
| FY2010      | Montana Fish, Wildlife and Parks (MFWP)                |                             | \$15,000                     |
| FY2010      | National Oceanic and Atmospheric Administration (NOAA) |                             | \$30,000                     |
| FY2010      | Kootenai Tribe   |                             | \$90,000                     |
| FY2010      | Confederated Tribes Of Warm Springs                    |                             | \$35,000                     |
| FY2010      | Idaho Department of Fish and Game (IDFG)               |                             | \$72,000                     |
| FY2011      | Shoshone-Bannock Tribes                                |                             | \$75,000                     |
| FY2011      | Salish and Kootenai Confederated Tribes                |                             | \$10,000                     |
| FY2011      | Nez Perce Tribe  |                             | \$125,000                    |
| FY2011      | Shoshone-Paiute Tribes                                 |                             | \$75,000                     |
| FY2011      | Yakama Confederated Tribes                             |                             | \$75,000                     |
| FY2011      | US Fish and Wildlife Service (USFWS)                   |                             | \$75,000                     |
| FY2011      | Umatilla Confederated Tribes (CTUIR)                   |                             | \$45,000                     |
| FY2011      | Confederated Tribes Of Warm Springs                    |                             | \$45,000                     |
| FY2011      | Columbia River Inter-Tribal Fish Commission (CRITFC)   |                             | \$35,000                     |
| FY2011      | Burns-Paiute Tribe                                     |                             | \$25,000                     |
| FY2011      | Idaho Department of Fish and Game (IDFG)               |                             | \$65,000                     |
| FY2011      | National Oceanic and Atmospheric Administration (NOAA) |                             | \$20,000                     |
| FY2011      | Montana Fish, Wildlife and Parks (MFWP)                |                             | \$10,000                     |
| FY2011      | Kootenai Tribe   |                             | \$50,000                     |

**Explanation of Recent Financial Performance:**

The Project's contract period is April 1 through March 31. Unfortunately, this period does not align well with BPA's fiscal year (October 1 through September 30). Subsequently, the values displayed in Taurus do not accurately represent the project's performance. The values in Taurus are a combination of contracts from different [project] fiscal years and include contracts (i.e., ODFW and WDFW) that are not related to the performance of this project. A more accurate illustration of annual spending levels for this project is provided in the "Major Accomplishments" section of this proposal.

Since 1999, this project has served two distinct functions: 1) provide funding for Foundation staff to coordinate and facilitate meetings and provide analytical support to the fish and wildlife managers, NPCC, BPA, and other stakeholders, and 2) provide reimbursement funding for fish and wildlife managers' time and

travel for participation in regional coordination activities. Following are descriptions of the financial performance for the two functions:

1) Foundation staff funding history - The Foundation funding supports a central staff that changed little between 1999 and 2008. Since 2008, there has been a reduction in staffing, with staff attrition of 1-2 FTE per year. Historically, the Foundation has spent its full contract amount. Recently, under-spending has been realized due to unforeseen periods of reduced staffing. For example, in August of 2010 the Executive Director resigned and that position was not filled for the remaining six-months of the contract period, resulting in significant under-spending. The Foundation staff budget has also been reduced due to loss of several Members since 2008. The reduced budget has been managed primarily through staff attrition, elimination of discretionary spending, and a shift to web-enabled meetings.

2) Members funding history - The fish and wildlife managers portion of the project has traditionally been underspent. Fish and wildlife entities establish subcontracts with the Foundation for reimbursement of time and travel. The fish and wildlife managers identify and approve their reimbursement needs 6-9 months before the start of the contract year. Predicting coordination needs, particularly who will be needed to participate within an agency or tribe and for what duration, is not an exact science. Subsequently, the managers provide their best estimates and work within that estimate throughout the fiscal year. In FY2010, the managers spent approximately 85% of the allocated funds.

**Explanation of Financial History:**

The project's historical performance is not different than the recent performance described above. The phases of the project and historical funding are described in the Major Accomplishment section of this proposal.

**Reporting & Contracted Deliverables Performance**

|                                    |                          |
|------------------------------------|--------------------------|
| <b>Annual Progress Reports</b>     | <b>Status Reports</b>    |
| <b>Expected (since FY2004):</b> 25 | <b>Completed:</b> 65     |
| <b>Completed:</b> 15               | <b>On time:</b> 36       |
| <b>On time:</b> 15                 | <b>Avg Days Late:</b> 19 |

| Contract              | Subsequent Contract(s)   | Title   | Contractor   | Start   | End     | Status  | Accepted Count of Contract Deliverables |            |           |          |          | % Green and Complete | Canceled      |          |
|-----------------------|--|---|--|---------|---------|---------|---|------------|-----------|----------|----------|----------------------|---------------|----------|
|                       |  |   |  |         |         |         | Reports                                 | Complete   | Green     | Yellow   | Red      |                      |               | Total    |
| 306 REL 1             | 4099, 5864, 20620 REL 2, 20620 REL 8, 20620 REL 12, 20620 REL 15, 20620 REL 23, 20620 REL 26 | 1989-062-01 EXP CBFWA ANNUAL WORK PLAN 2012           | Columbia Basin Fish and Wildlife Authority (CBFWA) | 02/2000 | 03/2013 | Pending | 31                                      | 53         | 21        | 0        | 0        | 74                   | 100.00%       | 2        |
| 20620 REL 3           | 20620 REL 6  | 198906201 EXP FY06 NED WORKPLAN                       | Columbia Basin Fish and Wildlife Authority (CBFWA) | 04/2005 | 03/2007 | Closed  | 6                                       | 18         | 4         | 2        | 1        | 25                   | 88.00%        | 0        |
| 19573                 |  | PROJECT 1989-062-01, HABITAT EVALUATION PROJECT (HEP) | Columbia Basin Fish and Wildlife Authority (CBFWA) | 10/2004 | 09/2005 | Closed  | 1                                       | 5          | 0         | 0        | 0        | 5                    | 100.00%       | 0        |
| 20620 REL 4           |  | 1989-062-01 NED WORKSHOP                              | Columbia Basin Fish and Wildlife Authority (CBFWA) | 04/2005 | 06/2005 | Closed  | 0                                       | 0          | 0         | 0        | 0        | 0                    |               | 0        |
| 20620 REL 11          | 20620 REL 17   | 1989-062-01 EXP F&W PROGRAM WEB / DATA SERVICES       | Columbia Basin Fish and Wildlife Authority (CBFWA) | 04/2007 | 03/2010 | Closed  | 13                                      | 18         | 0         | 0        | 0        | 18                   | 100.00%       | 0        |
| 47428                 | 51832  | 2012-004-00 EXP IDAHO REGIONAL COORDINATION 2012      | Idaho Department of Fish and Game (IDFG)           | 04/2010 | 03/2013 | Pending | 6                                       | 3          | 3         | 0        | 0        | 6                    | 100.00%       | 0        |
| 47646                 | 52934  | 2012-002-00 OREGON REGIONAL COORDINATION 2012         | Oregon Department Of Fish and Wildlife (ODFW)      | 04/2010 | 03/2013 | Pending | 6                                       | 6          | 4         | 0        | 1        | 11                   | 90.91%        | 0        |
| 52771                 |  | 2012-003-00 EXP WASHINGTON COORDINATION 2012          | Washington Department of Fish and Wildlife (WDFW)  | 04/2011 | 03/2013 | Pending | 2                                       | 0          | 4         | 0        | 0        | 4                    | 100.00%       | 0        |
| <b>Project Totals</b> |  |   |  |         |         |         | <b>65</b>                               | <b>103</b> | <b>36</b> | <b>2</b> | <b>2</b> | <b>143</b>           | <b>97.20%</b> | <b>2</b> |

**Elevated Contracted Deliverables in Pisces (2004 to present)**

| Contract     | WE Ref | Contracted Deliverable Title  | Due       | Completed |
|--------------|--------|---|-----------|-----------|
| 20620 REL 23 | A: 189 | Documentation of participation, materials, and outcomes of consensus-based coordination | 3/31/2011 | 3/31/2011 |
| 20620 REL 23 | B: 160 | CBFWA will provide publicly accessible web pages for each                               | 3/31/2011 | 3/31/2011 |

|              |        |   |           |           |
|--------------|--------|---|-----------|-----------|
|              |        | standing committee.   |           |           |
| 20620 REL 23 | C: 156 | Support for data sharing and data management guidance for CRB anadromous salmonid data.   | 3/31/2011 | 3/31/2011 |
| 20620 REL 23 | D: 156 | Recommendations to the NPCC on issues related to resident fish and wildlife M&E.          | 3/31/2011 | 3/31/2011 |
| 20620 REL 23 | E: 159 | CBFWA staff will develop robust data bases to support the Status of the Resource Website. | 3/31/2011 | 3/31/2011 |
| 20620 REL 23 | F: 161 | Maintain public access to the Status of the Resource Website                              | 3/31/2011 | 3/31/2011 |
| 20620 REL 23 | H: 189 | Documentation of participation in regional meetings and updates to Members.               | 3/31/2011 | 3/31/2011 |
| 20620 REL 23 | I: 162 | Analyses and recommendations to support CBFWA Members' discussion and decision making.    | 3/31/2011 | 3/31/2011 |
| 20620 REL 23 | J: 160 | Provide access to historical F&W Program database and website                             | 3/31/2011 | 3/31/2011 |
| 20620 REL 23 | K: 189 | Conduct survey and distribute results to respondents and stakeholders                     | 3/31/2011 | 3/31/2011 |
| 20620 REL 26 | F: 132 | Status of the Resource Report   | 6/8/2011  | 6/8/2011  |
| 20620 REL 26 | J: 132 | Final report uploaded to Pisces   | 6/8/2011  | 6/8/2011  |

[View full Project Summary report \(lists all Contracted Deliverables and Quantitative Metrics\)](#)

**Explanation of Performance:**

The project has a stellar record of completing tasks on time and under budget. The Oregon Coordination contract is implemented independent from this project. The FY06 NED Workplan project was a sub-contract through the Foundation and missed a deliverable due to the premature conclusion to that project.

**Major Accomplishments**

**Major Accomplishments:**

Project Number 1989-062-01 has been titled "Annual Work Plan" since its inception. For this funding cycle, FY2013-15, the project's title has been changed to "Program Coordination and Facilitation Services."

This "Major Accomplishments" section provides a: 1) general overview of project activities since 1996, 2) discussion of the coordination functions and performance metrics provided through the project, and 3) list of examples of recent deliverables (products) completed through the project since 2008. Products and deliverables are available on the Foundation's website at [www.cbfgwa.org](http://www.cbfgwa.org) and identified in the bibliography available in the "References" section of this proposal.

**1) General Overview of Annual Work Plan Project Activities Since 1996**

The project received its first BPA funding in fiscal year 1989 to assist the Tribes and fish and wildlife management agencies in developing project proposals for work to be funded through the NPCC's Program. The project transitioned to reviewing, and achieving consensus agreement on, an annual prioritized list of specific projects and budgets to be funded by BPA through the NPCC's Program. From the beginning, the project was focused on the planning and implementation phases of the Program's adaptive management processes. Through the project, the fish and wildlife managers identified the management priority of the projects submitted for funding. Their recommendation was balanced with the ISRP's scientific review, and the NPCC made final project recommendations to BPA considering both scientific merit and management priority. The role and focus of the project has changed, as the priority planning and implementation activities within the NPCC's Program have changed. Figure A1 provides the spending history of the project from 1999 to 2011. Following Figure A1 is a description of the various phases that the project has undergone since 1996.

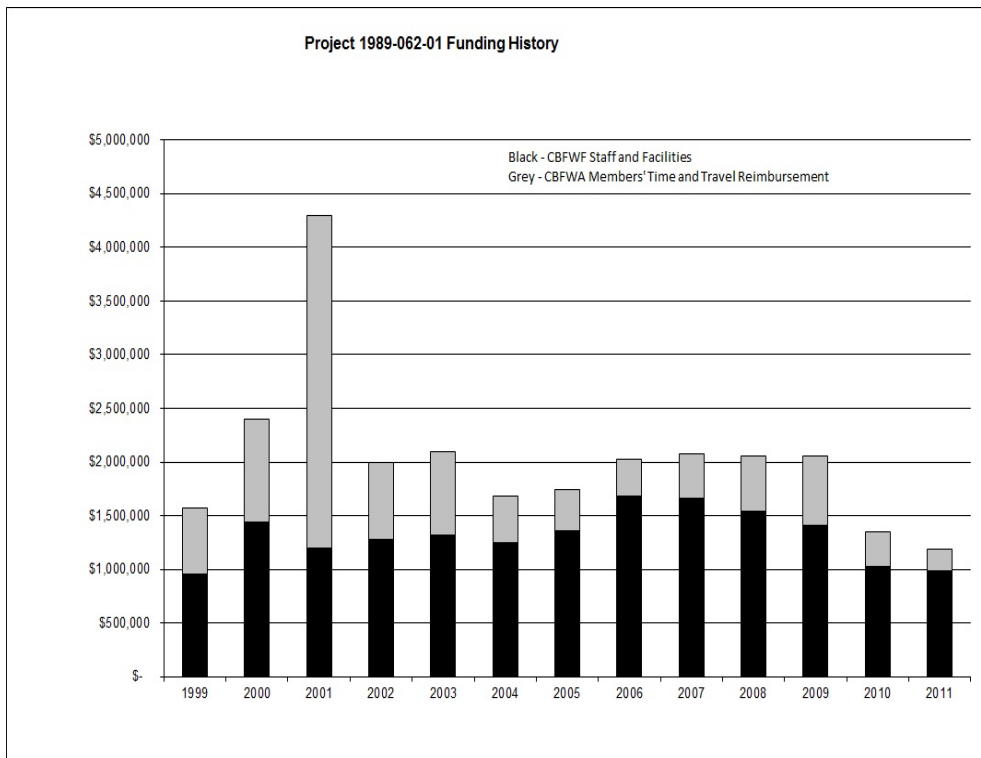


Figure A1. Historical spending for Project 1989-062-01, Annual Work Plan.

**1996-2001**

The BPA and other federal agencies agreed to a Memorandum of Agreement (Memorandum of Agreement Among the Department of the Army, the Department of Commerce, the Department of Energy, and the Department of the Interior Concerning the Bonneville Power Administration's Financial Commitment for Columbia River Basin Fish and Wildlife Costs (Sept. 16, 1996)) that established the NPCC's Program funding level at \$127 million annually. The fish and wildlife agencies and tribes, through the CBFWA, provided an annual prioritized list of projects to be funded by BPA within a "balanced" budget to implement the Program (CBFWA 1999 and 2000c). The intent of the coordinated review was to establish consensus agreement on the management priorities of the various projects. Additional activities during this period included:

- Conducted the 1997 Columbia Basin Fish and Wildlife Program Review of Projects in Portland, Oregon. The three-day event was co-sponsored by the BPA, NPCC, Public Power Council, and Trout Unlimited. The purpose was to provide the public with information on the \$127 million in fish and wildlife mitigation projects funded annually through the NPCC's Program.
- Facilitated the completion of the Multi-Year Planning Process, coordinating with MOA parties, the NPCC and tribes to reach regional approval of a multi-year implementation plan, including a five-year budget to implement the Plan (CBFWA1998). This effort was the basis for establishing BPA funding levels for 2002 and beyond.
- Facilitated "Three Sovereigns" process, including the Governance and Transition Cost workgroups, to develop a regional approach and provide input to a pending Energy Deregulation Bill.
- Participated in the Multi-Species Framework process integrating fish, wildlife, and ecologic functions (basis for framework of 2000 Program Amendment).
- Provided support for coordination activities and facilitated communications among fish and wildlife managers necessary for resolving issues related to hatchery operations; facilitated Integrated Hatchery Oversight Team and assisted with the Artificial Production Review Evaluation.
- In 2000, developed the *Draft Annual Implementation Work Plan* (CBFWA2000c) that included Ecosystem Summaries for each subbasin, which provided a comprehensive effort to identify biological context for each of the projects recommended for BPA funding (based on CBFWA1990 Subbasin Plans); partially responding to Independent Science Group's recommendation in *Return to the River (ISG 1996)*.
- Developed a website accessible budget and project tracking data base for Program implementation (predecessor to PISCES).

#### 2001-2005

The role and focus of the fish and wildlife managers' participation in the Program shifted towards developing a comprehensive justification for the projects and improved planning to support adaptive management within the Program. This project coordinated and facilitated the development of Ecosystem Summaries in 2000, which transitioned to subbasin summaries in 2001, and led to the NPCC's call for the development of subbasin plans in 2002. In 2001, the NPCC approved a one-time funding increase (Figure A1) for the project to coordinate and facilitate the completion of the subbasin summaries. During this time, the Foundation staff facilitated the Rolling Province Review – a series of project reviews and site visits for each of the provinces within the Columbia River Basin. Foundation staff coordinated and organized site visits and facilitated project presentations which sponsors provided to the ISRP. Other project activities and accomplishments during this time period included:

- The project developed Draft Annual Implementation Work Plans, packaged geographically, with recommendations for an allocated, balanced annual budget and participated in the NPCC's public review process for project selection. The role of explicitly establishing management priorities for projects was eliminated by the NPCC (CBFWA2000a-c, 2001a-d, and 2002a-f).
- Continued coordinating and facilitating the Rolling Province Reviews for the NPCC and ISRP.
- Worked collaboratively with the ISRP to develop criteria for Innovative Project Reviews for recommendation to the NPCC (CBFWA2001e).
- Provided management reviews and recommendations for within-year budget and scope-of-work adjustments for BPA-funded projects (predecessor to the Budget Oversight Committee);
- Developed a prioritized list of projects to be funded through the Early Action and High Priority Funding processes to support the 2000 FCRPS Biological Opinion (available at [www.cbfgwa.org](http://www.cbfgwa.org)).
- The Foundation developed a New Directions Work Plan to outline the essential functions of the organization over the next three to five years and restated its mission "to be the leading regional voice advocating for the fish and wildlife of the Columbia River Basin and the ecosystems on which they depend." (CBFWA 2004a)
- Facilitated the LTWG's development of an update to the Columbia River Lamprey Program Summary (LTWG 2004).
- Working with regional interests, facilitated the Regional Assessment Advisory Committee, to develop templates for watershed assessments, subbasin assessments, and subbasin plans which led to the development of scientific guidance for subbasin planners.
- Established the Business Practices Committee, a cooperative effort between the BPA, NPCC, and Foundation staffs, which directly resulted in BPA's development of the PISCES Project Tracking software.
- Coordinated Program Amendment recommendations among 19 fish and wildlife entities for the 2005 Program Amendment process, including comments on the Mainstem Amendment.
- Developed a collaborative monitoring and evaluation program through the Collaborative Systemwide Monitoring and Evaluation Program (CSMEP) to provide integration of monitoring and evaluation activities across the Columbia River Basin in response to the NMFS and USFWS Biological Opinions and NPCC's Program. This was the beginning of the development of a comprehensive monitoring and evaluation framework for the Program (CSMEP 2008).
- Co-sponsored the Resident Fish Conference and 29th International Kokanee Workshop in Spokane, Washington.
- Developed and maintained a comprehensive website of information pertaining to the Program and developed project tracking tools; Also maintained a database of historic project activities including project reviews and recommendations (predecessor to Taurus).
- Compiled Rolling Province Review Implementation Reports which summarized project implementation at the subbasin- and project-scale; (predecessor to the SOTR, CBFWA2004b, 2005, and 2007b).

#### 2005-2008

The project's focus was on addressing the role of regional coordination within the Program and to continue to fine tune the planning element of the Program. Significant effort was expended in defining future roles for coordination and preparing Program amendment recommendations. Other activities and accomplishments during this phase include:

- Amended Charter to increase the participation of fish and wildlife managers. Procedures were modified to increase policy-level representation and improved integration of technical/policy input. Staffing modifications were implemented to better serve the managers. The Spokane Tribe, Kalispel Tribe, and Coeur d'Alene Tribe withdrew their membership stating that CBFWA was not adequately meeting the needs of their tribes.
- Held a two-day workshop in collaboration and consensus resulting in *Consensus Workshop Handbook Influencing Decisions that Affect Columbia Basin Fish and Wildlife Resources* (2006 Workshop by the same name).
- Hosted a workshop to develop a critical uncertainties document for lamprey (LTWG 2005 and see Workshops in Reference section of this proposal).
- Facilitated the Data Management Framework Subcommittee, which made the first attempt to coordinate Basin-wide data management for salmon and steelhead reporting for BiOp and Program needs. This effort, combined with the development and production of the SOTR, helped guide restructuring of the StreamNet project (2006 Data Management Workshop).
- Participated in and supported a NPCC sponsored workgroup to define regional coordination for the Program (CBFWA2007a).
- Provided web-access to historic information on project proposals and funding information for the Program; coordinated with the Taurus project to provide information and maintain an archive of historic information.
- Developed comments on the NPCC's *Draft Research Plan*, *Draft Monitoring and Evaluation Plan*, and *Draft Columbia River Data Center* proposals (See letters in Reference section).
- Hosted meetings to evaluate the use of the AI-H Analyzer Model for developing draft Program Amendments related to anadromous fish which eventually led to an adaptive management framework for the anadromous fish amendment recommendations, which were accepted by the NPCC. This effort identified the need to revisit biological objectives for anadromous fish within the Program (resulting in a specific 2009 Program measure).
- Developed the *Status of the Resources Annual Report* illustrating fish and wildlife population status, locations of projects, limiting factors, etc. at the subbasin, province and basin-wide scales (CBFWA2006a, 2008b, 2010, and 2011b).
- Facilitated the Mainstem and Systemwide Review Team Review and recommendations for the FY 2007-2009 funding cycle (2006b).
- Provided comments on the NPCC's Fish Passage Center Oversight Board.
- Developed an adaptive management framework for the CBFWA amendment recommendations to the 2009 Program that supported accountability for the Program (CBFWA2008a). The amendment recommendations included a monitoring and evaluation plan and elements necessary to make linkages between project actions and biological results. The recommendations had full consensus support of all the Members. This framework was accepted by the NPCC and

led to the initial content and framework of the NPCC's *Multi-year Action Plans*.

•The Members provided written comments on: 1)BP Afunding levels for the Program, 2) data management framework, coordination definitions and work plan, 3) Collaborative Systemwide Monitoring and Evaluation Project funding, 4) Science Policy Conference input, 5) U.S. Corps of Engineers Lamprey Passage Plan, 6) BP Ain-lieu policy, 7) application of the AI-H Analyzer tool to support Program amendments, 8) comments for the BPAWPO7 Rate Case regarding critical and essential projects, and 9) wildlife operations and maintenance funding. The Members attended NPCC meetings and made presentations about their amendment strategy on a quarterly basis. The specific consensus approved communications are available on the Foundation's website at [www.cbfiwa.org](http://www.cbfiwa.org) and some example letters are provided in the References section of this proposal.

**2009-2011**

The project's focus of, during this period, was on developing technical documents to support measures identified in the 2009 Program. With continued member withdrawals, the Members rewrote the work plan focusing staff efforts on three policy directives: 1) participate in and support ongoing assessments of the status of the species and implementation of strategies and actions to help determine if protection, mitigation, and enhancement efforts are successful in the Columbia River Basin, 2) maintain a SOTR website and annually prepare a written report summarizing the current information provided on the website, and 3) monitor and report on activities of key regional forums where policies, programs, and actions that affect fish and wildlife are planned and implemented. The project shifted focus to support the evaluation phase of adaptive management for the Program. During this period, there was also a move towards collaborating with the NPCC and BPAstaffs to develop technical products for the NPCC's Program. Accomplishments during this period include:

- The Colville Confederated Tribes (no reason provided), ODFW and WDFW withdrew their membership citing a change in the fish and wildlife management landscape.
- Staff continued to coordinate and facilitate regional technical forums for anadromous fish, resident fish, and wildlife which encouraged participation by all fish and wildlife co-managers and interested parties.
- Updated and improved the SOTR website and annual report (CBFWA2010, 2011b).
- Foundation staff continued to participate on the PNAMP Steering Committee and PNAMP Data Management Leadership Team
- Facilitated development of a prioritized list of BPA-funded research, monitoring, and evaluation projects through Project Number 2008-733-00 to support the NPCC's RM&E Category Review (Columbia River Anadromous Monitoring Workshop 2010a-e).
- Facilitated and coordinated the development of draft loss assessment methodologies for resident fish impacted by the FCRPS and submitted a request for consideration to the NPCC (See 2009 Letter in References section of this proposal).
- Working with NPCC staff, the Foundation's staff initiated efforts to develop implementation strategies to support the NPCC's draft MERR Plan. The strategies coordinate all monitoring efforts supported by BPA projects to ensure the necessary data is being collected to allow for basin-wide status and trend assessments of anadromous fish, resident fish, and wildlife.
- Lamprey Technical Workgroup revised the 2005 Critical Uncertainties document, completed a trans-location paper, and began work on passage standards for lamprey (LTWG 2005, 2010, 2011a-c).
- Working with NPCC staff and the PNAMP, Foundation staff developed the *Columbia River Basin Collaborative Data Sharing Strategy for Salmon and Steelhead*. This strategy aligns data management plans within the agencies and tribes collecting salmon and steelhead data to provide relevant information to NOAA Fisheries for annual status assessments and support the NPCC's HLIs (CBFWA, PNAMP, and StreamNet 2010 and 2011a-c).
- Foundation staff coordinated and facilitated the manager's development of implementation strategies for redband/rainbow trout, westslope cutthroat trout, Yellowstone cutthroat trout, bull trout, kokanee, burbot, white sturgeon, largemouth bass, and freshwater mussels (Resident Fish Focus Workgroup(s) 2010 and 2011a-i).
- Foundation staff coordinated and facilitated the wildlife manager's development of the *Wildlife Monitoring Implementation Strategy* to address data management and reporting needs to support wildlife high level indicators for the Columbia River Basin and the NPCC's Program (Wildlife Focus Workgroup 2011).
- Foundation staff coordinated and facilitated the biennial FSOC workshops and training courses (See Workshops in References section of this proposal). FSOC also reviewed NMFS horizontal screen criteria and specific application of the criteria (FCA and FSOC 2010).
- Foundation staff developed and conducted a Foundation and staff survey. A total of 96 participants addressed questions regarding role, effectiveness, and satisfaction in regional coordination functions provided by the Foundation (CBFWA2011).

**2) Coordination Functions and Performance Metrics**

The Foundation staff has coordinated/facilitated and/or attended nearly 150 meeting per year at the policy and technical levels over the past five years (Table A1). Most of the CBFWA specific meetings include non-member participation depending on the agenda items and discussion topics (Table A2). Several of the current meetings facilitated by Foundation staff are specifically targeted at audiences broader than the CBFWAMembership, including the Coordinated Assessments project, LTWG, FSOC, and Resident Fish Monitoring Strategy workgroups (captured under RFAC). The meetings attended by Foundation staff are included under Miscellaneous Meetings and are described in a footnote to Table A1.

|  | FY2007<br>4/07 - 3/08 |           | FY2008<br>4/08 - 3/09 |           | FY2009<br>4/09 - 3/10 |           | FY2010<br>4/10 - 3/11 |           | FY2011 (Partial)<br>4/11 - 9/11 |           |
|--|-----------------------|-----------|-----------------------|-----------|-----------------------|-----------|-----------------------|-----------|---------------------------------|-----------|
|  | # Mtgs                | Avg. Att. | # Mtgs                | Avg. Att. | # Mtgs                | Avg. Att. | # Mtgs                | Avg. Att. | # Mtgs                          | Avg. Att. |
| CBFWA Members  | 23                    | 24        | 24                    | 22        | 22                    | 17        | 5                     | 28        | 4                               | 18        |
| CBFWA Members<br>Advisory Group  | 25                    | 22        | 17                    | 20        | 16                    | 17        | 4                     | 18        | 6                               | 16        |
| Anadromous Fish<br>Advisory Committee  | 24                    | 10        | 9                     | 16        | 5                     | 8         | 1                     | 12        | 3                               | 7         |
| Collaborative Systemwide<br>Monitoring and<br>Evaluation Project   | 49                    | 10        | 12                    | 8         | -                     | -         | -                     | -         | -                               | -         |
| Data Management<br>Framework<br>Subcommittee (2007);<br>M&E Committee (2008-<br>09);<br>Coordinated Assessments<br>(2010-11) | 9                     | 10        | 7                     | 10        | 26                    | 13        | 15                    | 18        | 17                              | 13        |
| Resident Fish Advisory<br>Committee  | 14                    | 10        | 5                     | 13        | 11                    | 9         | 13                    | 10        | 3                               | 10        |



|  |         |    |         |    |         |    |        |    |        |    |
|--|---------|----|---------|----|---------|----|--------|----|--------|----|
| WILDLIFE ADVISORY COMMITTEE                          | 26      | 9  | 9       | 16 | 10      | 16 | 9      | 15 | 7      | 13 |
| Columbia River Tribes/Columbia River Treaty Meetings |         |    |         |    | 21      | 14 | 0      | -  | 2      | -  |
| Fish Screen Oversight Committee                      | 1       | 22 | 4       | 28 | 5       | 16 | 6      | 20 | 2      | 14 |
| Lamprey Technical Work Group                         | 4       | 26 | 2       | 9  | 11      | 10 | 6      | 12 | 3      | 13 |
| Upper Snake River Tribes                             | 6       | 15 | 1       | -  | 2       | -  | 1      | -  | 0      | -  |
| Miscellaneous Meetings                               | 14      | 7  | 9       | 12 | 9       | 12 | 85     | -  | 25     | -  |
| Total number of meetings                             | 195     |    | 99      |    | 138     |    | 145    |    | 72     |    |
| Website Hits   | 168,654 |    | 154,793 |    | 123,672 |    | 33,113 |    | 17,483 |    |

Miscellaneous meetings include: NPCC Meetings (Council meetings, F&W Committee, Wildlife Crediting Forum, etc.); BPA Rate Case hearings; PNAMP meetings (Steering Committee, Data Management Leadership Team, Habitat Data Sharing, etc.); StreamNet Steering Committee; Fish Passage Center Oversight Board; Budget Oversight Group; Taurus Team Coordination; Fish Passage Advisory Committee; Coordination meetings with BPA and Council staff, etc.

Table A2. Attendance at Meetings facilitated by Foundation staff from April 2010 through March 2011.

|  | Members    | MAG       | AFAC      | CA        | LTWG      | FSOC      | RFAC      | Sturgeon  | Wildlife  |
|--|------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| <b>CBFWA Members</b>   |            |           |           |           |           |           |           |           |           |
| BPT - Burns Paiute Tribe   | 5          | 7         |           | 1         |           |           | 3         |           | 14        |
| CSKT - Confederated Salish and Kootenai Tribes of the Flathead Reservation | 7          | 1         |           |           |           |           |           |           | 1         |
| CTUIR - Confederated Tribes of the Umatilla Indian Reservation             | 6          | 2         | 3         | 2         | 3         |           |           |           | 8         |
| CTWSRO - Confederated Tribes of the Warm Springs Reservation               | 15         | 1         | 3         | 4         | 1         |           |           |           | 9         |
| YN - Confederated Tribes and Bands of the Yakama Nation                    | 1          |           | 5         | 5         |           |           |           |           | 7         |
| FDPST - Fort McDermitt Paiute-Shoshone Tribe of Nevada and Oregon          | 3          |           |           |           |           |           |           |           |           |
| IDFG - Idaho Department Fish & Game  | 8          | 4         | 6         | 6         |           | 4         | 1         | 3         | 2         |
| KTOI - Kootenai Tribe of Idaho   | 6          | 1         |           |           |           |           |           |           | 10        |
| MFWP - Montana Fish, Wildlife & Parks                                      | 3          | 1         |           |           |           | 4         |           |           | 1         |
| NOAA Fisheries   | 12         | 7         | 9         | 4         | 2         | 12        |           |           |           |
| NPT - Nez Perce Tribe of Idaho   | 8          | 2         | 8         | 5         | 2         |           |           | 4         | 8         |
| ODFW - Oregon Department of Fish and Wildlife                              | 7          | 4         | 10        | 14        |           | 19        | 3         | 4         | 1         |
| SBT - Shoshone-Bannock Tribes of Fort Hall                                 | 15         | 2         | 1         | 1         |           |           |           |           | 8         |
| SPT - Shoshone-Paiute Tribes of Duck Valley                                | 11         | 2         |           |           |           |           |           |           | 7         |
| USFWS - U.S. Fish & Wildlife Service                                       | 7          | 2         |           |           | 4         | 9         | 4         | 3         |           |
| WDFW - Washington Department of Fish and Wildlife                          | 5          | 2         | 7         | 16        | 2         | 11        | 1         | 6         | 14        |
| <b>Sub-total:</b>  | <b>119</b> | <b>38</b> | <b>52</b> | <b>58</b> | <b>14</b> | <b>59</b> | <b>12</b> | <b>20</b> | <b>90</b> |
| <b>Non-Members</b>   |            |           |           |           |           |           |           |           |           |
| Battelle Pacific Northwest National Laboratory                             |            |           |           |           | 1         |           |           |           |           |
| BioAnalysts  |            |           |           | 1         |           |           |           |           |           |
| Bonneville Power Administration  | 1          |           | 1         | 11        | 2         | 4         |           |           | 6         |
| Chelan County PUD  |            |           |           |           | 3         |           |           |           |           |
| Columbia River Inter-Tribal Fish Commission                                | 3          | 3         | 6         | 9         | 1         |           |           | 3         |           |
| Confederated Tribes of Grand Ronde   |            |           |           |           | 1         |           | 2         |           | 2         |
| Confederated Tribes of the Colville  |            |           |           |           |           |           |           |           |           |

|  |            |           |           |            |           |           |           |           |            |
|--|------------|-----------|-----------|------------|-----------|-----------|-----------|-----------|------------|
| Reservation                                      |            |           | 1         | 2          |           |           |           | 1         |            |
| Couer d'Alene Tribe                              |            |           |           |            |           |           |           |           |            |
| Davis Hydro                                      |            |           |           |            |           | 1         |           |           |            |
| Douglas PUD                                      |            |           |           | 1          |           |           |           |           |            |
| Environmental Data Services                      |            |           | 1         |            |           |           |           |           |            |
| Farmers Conservation Alliance                    |            |           |           |            |           | 6         |           |           |            |
| Fish Passage Center                              |            |           | 4         |            |           |           |           |           |            |
| Fisheries Consultants                            |            |           |           |            |           | 1         |           |           |            |
| Grant County PUD                                 |            |           |           |            | 2         |           |           |           |            |
| HDR Engineering, Inc.                            |            |           |           |            |           | 1         |           |           |            |
| Hinrichsen Environmental Services                |            |           | 2         |            |           |           |           |           |            |
| Intralox, LLC                                    |            |           |           |            |           | 2         |           |           |            |
| Kalispel Tribe of Indians                        |            |           |           |            |           |           |           |           | 1          |
| Longview Associates                              |            |           |           |            | 2         |           |           |           |            |
| Lower Columbia Fish Recovery Board               |            |           |           | 1          |           |           |           |           |            |
| Northwest Habitat Institute                      |            |           |           |            |           |           |           |           | 7          |
| Northwest Power and Conservation Council         | 2          | 1         |           | 10         |           |           |           |           | 2          |
| Oregon Watershed Enhancement Board               |            |           |           | 1          |           |           |           |           |            |
| Pacific Northwest Aquatic Monitoring Partnership |            |           | 4         | 2          |           |           |           |           |            |
| Pacific States Marine Fisheries Commission       |            | 2         | 3         | 6          |           |           |           |           |            |
| Peven Consulting                                 |            |           |           | 1          |           |           |           |           |            |
| R2 Resource Consultants and Engineering          |            |           |           |            |           |           | 2         |           |            |
| Ross & Associates Environmental Consulting       |            | 1         |           | 4          |           |           |           |           |            |
| Snake River Recovery Board                       |            |           |           | 1          |           |           |           |           |            |
| Spokane Tribe of Indians                         |            |           |           |            |           |           |           |           | 2          |
| StreamNet  |            |           |           | 1          |           |           |           |           |            |
| University of Idaho                              |            |           |           | 1          |           |           |           |           |            |
| University of Washington                         |            |           |           | 2          |           |           |           |           |            |
| Upper Columbia Recovery Board                    |            |           |           | 1          |           |           |           |           |            |
| Upper Columbia United Tribes                     | 1          |           |           |            |           |           |           |           | 3          |
| Upper Snake River Tribes                         | 3          | 1         |           |            |           |           |           |           |            |
| US Bureau of Reclamation                         |            |           |           | 1          | 1         | 4         |           |           |            |
| US Army Corps of Engineers                       |            |           |           | 2          | 2         |           |           |           |            |
| US Geological Survey                             |            | 1         |           | 8          | 1         | 1         |           |           | 3          |
| Yakima Basin Fish & Wildlife Recovery Board      |            |           | 1         | 2          |           |           |           |           |            |
| <b>Sub-total:</b>                                | <b>10</b>  | <b>9</b>  | <b>16</b> | <b>74</b>  | <b>17</b> | <b>22</b> | <b>2</b>  | <b>9</b>  | <b>21</b>  |
| <b>Total:</b>                                    | <b>129</b> | <b>47</b> | <b>68</b> | <b>132</b> | <b>31</b> | <b>81</b> | <b>14</b> | <b>29</b> | <b>111</b> |

**Members Forum--**

The CBFWAMembers meet no less than twice annually to: 1) review the *Status of the Resources Project*, and 2) approve the CBFWAAAnnual Work Plan and appoint officers. The current Chair is Nathan Small and alternate is Tino Batt (Shoshone-Bannock Tribes of Fort Hall, SBT), and the Vice-chair role is Jim Unsworth (Idaho Department of Fish & Game, IDFG). AMembers Meeting quorum consists of one Federal Agency Authority Member, one State Agency Authority Member, and three Tribal Authority Members, one each who is a member of the Columbia River Inter-Tribal Fish Commission (CRITFC) and the Upper Snake River Tribes (USRT), and one who is either a member of the Confederated Salish and Kootenai Tribes of the Flathead Reservation (CSKT) or the Kootenai Tribe of Idaho (KTOI). All Members meetings include time for public comment. Closed meetings (executive sessions) may be called as necessary to discuss sensitive issues with final action to take place in open session. The charter is available at [www.cbfwa.org/Members/](http://www.cbfwa.org/Members/). The current Members of CBFWAare: Burns Paiute Tribe (BPT), CSKT, Confederated Tribes of the Umatilla Indian Reservation (CTUIR), Confederated Tribes of the Warm Springs Reservation (CTWSRO), Confederated Tribes and Bands of the Yakama Nation (YN), Fort McDermitt Paiute-Shoshone Tribe of Nevada and Oregon (FMPST), KTOI, Nez Perce Tribe of Idaho (NPT), SBT, Shoshone-Paiute Tribes of Duck Valley (SPT), U.S. Fish & Wildlife Service (USFWS), National Marine Fisheries Service (NMFS), IDFG, and Montana Fish, Wildlife & Parks (MFWP). The Members operate under a consensus charter and no communications on CBFWAletterhead are transmitted without approval by the Members.

**Members Advisory Group--**

The Members Advisory Group (MAG) is an advisory committee to the Members. The MAG members consist of senior managers active in Columbia Basin management and are appointed by the Members. MAG meetings are held every other month, typically on the third Tuesday of the month, with interim meetings scheduled as the need arises. The MAG meetings are facilitated by a representative chosen by the Chairing organization. This year the MAG is chaired by Doug Taki, of the Shoshone-Bannock Tribe. The MAG vice-chair is Lance Heddon, Idaho Department of Fish and Game. Please note that this committee was previously known as the Members Management Group, so older action notes will show MMG. The administrative protocol for the Members Advisory Group is covered under the CBFWAMembers' Charter, Part VAdministration; Section 501: Members Advisory Group, page 9. The MAG oversees the work of the committees and recommendations actions to the Members for their consideration. The MAG also assists the Foundation staff in carrying out the regular business of CBFWA.

**Anadromous Fish Advisory Committee--**

The Anadromous Fish Advisory Committee (AFAC) is chaired by NMFS and was most recently facilitated by Dave Ward of Foundation staff. The charter is available at [http://www.cbfwa.org/committee\\_afac.cfm](http://www.cbfwa.org/committee_afac.cfm). This group was previously referred to as the Anadromous Fish Managers, and as the Anadromous Fish Committee, so some older action notes will show AFM or AFC. The AFAC discusses technical issues related to hatcheries, habitat, and monitoring and evaluation of anadromous fish. Participation includes Members and non-Members and is determined by the agenda items selected for discussion, meaning if the topic is of interest to representatives from agencies and tribes, they will attend regardless of Membership status. For the past two years, work has focused on the Coordinated Assessments project, a partnership between CBFWAand PNAMP; to improve data sharing for salmon and steelhead data in the Columbia River Basin. The Coordinated Assessments effort has resulted in the development of individual data management plans for each of the agencies and tribes that manage salmon and steelhead data, and an overall basin-wide data sharing strategy described in the "Recent Deliverables" section of this summary. The Coordinated Assessments Workgroup was facilitated by a Core Team consisting of Jen Bayer, PNAMP; Tom Iverson, CBFWA; Bruce Schmidt, StreamNet; Kathryn Thomas, PNAMP; and Louis Sweeny and Kristen Durance, Ross and Associates, a contractor to PNAMP. The Core Team was guided by the Coordinated Assessments Planning Group (CAPG) which consisted of Kasey Bliessner, Oregon Department of Fish and Wildlife (ODFW); Cedric Cooney,

ODFW; Brodie Cox, Washington Department of Fish and Wildlife (WDFW); Henry Franzoni, CRITFC; Jim Geiselman, BPA; Lance Hebbon, IDFG; Jay Hesse, Nez Perce Tribe (NPT); Nancy Leonard, NPCC; Erik Neatherlin, WDFW; Phil Roger, CRITFC; Scott Rumsey, NOAA; Stacy Schumacher, CTUIR; Russell Scranton, BPA; and Dave Ward, CBFWA. The Workgroup involved more than fifty additional biologists and data managers across the Columbia River Basin representing the following entities: BPA, CRITFC, YN, Confederated Tribes of the Colville Reservation (CCT), CTUIR, CTSWSRO, Fish Passage Center, IDFG, Lower Columbia Fish Recovery Board, Lower Columbia River Estuary Partnership, NPT, NMFS, NPCC, ODFW, PNAMP, Peven Consulting, Ross and Associates, SBT, StreamNet, University of Washington, Upper Columbia Salmon Recovery Board, U.S. Bureau of Reclamation (USBOR), U.S. Corps of Engineers (USCOE), USFWS, U.S. Geological Survey (USGS), WDFW, and Washington Governor's Salmon Recovery Office.

#### Resident Fish Advisory Committee –

The Resident Fish Fish Advisory Committee (RFAC) is chaired by USFWS and is facilitated by Neil Ward of Foundation staff. The charter is available at [http://www.cbfwa.org/committee\\_rfmc.cfm](http://www.cbfwa.org/committee_rfmc.cfm). This group was previously referred to as the Resident Fish Managers, and as the Resident Fish Committee, so some older action notes will show RFM or RFC. The resident fish managers have been focused on developing resident fish monitoring implementation strategies, consistent with the draft MERR Plan, to support their resident fish project proposals in the Resident Fish Category Review. This compilation of resident fish research, monitoring, and evaluation efforts in the Columbia River Basin represents the first product of a three-phase effort that is intended to result in the completion of a: 1) basin-wide resident fish research, monitoring, and evaluation implementation strategies, and 2) coordinated data management, sharing, and reporting protocol. With the completion of Phase 1, research, monitoring, and evaluation efforts have been compiled for focal species (i.e., bull trout, burbot, freshwater mussels, kokanee, largemouth bass, redband/rainbow trout, westslope cutthroat trout, and white sturgeon) at the subbasin- and province-level. The meetings have been co-facilitated by staff from the Upper Columbia United Tribes (UCUT) and Foundation staff. Representatives from the following entities assisted in compiling the RMFE information: BPT, Coeur d'Alene Tribe (CDAT), CRITFC, CCT, Cramer and Associates, Kalispel Tribe (KT), KTOI, IDFG, Idaho Power Company, MFWP, NPT, ODFW, SBT, Spokane Tribe of Indians (STOI), UCUT, USBOR, USCOE, U.S. Forest Service (USFS), USFWS, USGS, and WDFW.

#### Wildlife Advisory Committee –

The Wildlife Advisory Committee (WAC) chair is Scott Soultz, KTOI, and the committee is facilitated by Tom Iverson of the Foundation staff. The charter is available at [http://www.cbfwa.org/committee\\_wac.cfm](http://www.cbfwa.org/committee_wac.cfm). This group was previously named Wildlife Managers, and then Wildlife Committee, so older action notes will show WM or WC. The wildlife committee has been working on three primary efforts over the past two years: 1) input to the Wildlife Crediting Forum sponsored by the NPCC providing coordination of the wildlife managers input into that process, 2) working closely with BPA staff in the development of a Land Management Plan template for BPA-funded land acquisitions which is feeding into a Land Acquisition Handbook, and 3) development of a Wildlife Monitoring Implementation Strategy (WMS) to support the Council's draft MERR Plan. The WAC also conducts project site visits to exchange lessons learned and business practices among BPA-funded wildlife projects. In 2011, the WAC visited the Kootenai subbasin, toured the Oregon Wildlife Mitigation Settlement properties and exchanged planning ideas with the project leader, and toured the Montana Wildlife Mitigation projects and shared lessons learned from their effort. Deliverables are listed under the Recent Deliverables portion of this section of the proposal. The initial draft of the WMS was developed through the WAC in collaboration with Nancy Leonard, NPCC staff. Scott Soultz, KTOI, led the effort as Chair of the WAC during calendar year 2010. Doug Calvin, CTSWSRO, originated the effort as WAC chair during calendar year 2009. WAC participants and contributing authors include: Carl Scheeler and Jenny Barnett (CTUIR); Angela Sondenaa (NPT); Tracy Hames (YN); Jason Kesling and Kyle Heinrich (BPT); Aren Eddingsaas (SBT); Carol Perugini (SPT); Norm Merz (KTOI); Lawrence Schwabe (Confederated Tribes of the Grand Ronde (CTGR)); Laura Tesler (ODFW); Paul Dahmer and John Pierce (WDFW); Dwight Bergeron (MFWP); Greg Servheen (IDFG); Peter Paquet (NPCC); David Byrnes (BPA); Chase Davis (UCUT); Tom O'Neill (NHI); and Paul Ashley and John Andrews (Regional HEP Team). Tom Iverson (Foundation staff) facilitated the WAC meetings and coordinated writing and edits to the document.

#### Lamprey Technical Work Group –

In 1995, the NPCC established the Columbia River Basin Lamprey Technical Workgroup (LTWG) to serve and guide coordination activities for new and existing lamprey projects funded, or proposed for funding, through the BPA. The need for guided and coordinated lamprey research extended beyond the scope of the original workgroup and in 2003 the LTWG was re-instated to function under the authority of CBFWA. The LTWG serves as a subcommittee of the AFAC. The USFWS coordinates LTWG activities by organizing meetings and workshops to facilitate LTWG function. The purpose of the LTWG is to provide technical review, guidance, and recommendations for activities related to lamprey conservation and restoration. The LTWG accomplishes this by: 1) identifying and prioritizing critical uncertainties regarding lamprey conservation; 2) providing a forum for discussion regarding lamprey-related concerns; and 3) disseminating technical information. Deliverables are listed under the Recent Deliverables portion of this section of the proposal. The forum is facilitated by Dave Ward of Foundation staff and the members are listed here: Nick Ackerman, Portland General Electric; Jody Brostrom, USFWS; Christopher Caudill, University of Idaho; Ben Clemens, Oregon State University; Mke Clement, Grant County Public Utility District; David Clugston, USCOE; Debbie Docherty, BPA; Jennifer Graham, CTSWSRO; Molly Hallock, WDFWS; Doug Hatch, CRITFC; Aaron Jackson, CTUIR; Gary James, CTUIR; Kathryn Kostow, ODFW; Bao Le, Longview Associates; Christina Luzer, USFWS; Matt Mesa, USGS; Mary Moser, NOAA; Bob Mueller, Pacific Northwest National Laboratory; Josh Murauskas, Douglas County Public Utility District; Jeff Osborn, Chelan Public Utility District; Christopher Peery, USFWS; Tim Shibahara, Portland General Electric; Dave Stalter, NPT; Bianca Streif, USFWS; Bob Rose, YN; Patrick Luke, YN; Dave Roberts, BPA; Bob Heinrich, CRITFC; Lawrence Schwabe, CTGR; Lawrence Schwabe, CTGR; Gene Shippentower, CTUIR; Beau Patterson, Douglas County Public Utility District; Sean C. Tackley, USCOE; Brian McIlraith, CRITFC; and Keith Kutchins, UCUT.

#### Fish Screening Oversight Committee –

The Fish Screen Oversight Committee (FSOC) envisions all stream diversions within the Columbia River Basin properly screened to prevent loss of juvenile salmonids and other species of fish. The FSOC is chaired by NMFS and is facilitated by Dave Ward of the Foundation staff. The purpose of the FSOC (Section 7.10A1 of the 1994 Program) is to provide overall direction, set priorities and ensure oversight of objectives, funding opportunities, standards, biological criteria and evaluation relative to fish screening activities in the Columbia River Basin. The committee is coordinated by Foundation staff. Deliverables are listed under the Recent Deliverables portion of this section of the proposal. The FSOC is currently chaired by Bryan Nordlund (NMFS) and recent participants include: Pat Schille (WDFW), Brian Allee (NMFS), Alan Ritchey (ODFW), Les Perkins (Farmers Conservation Alliance (FCA)), Brian Zimmerman (CTUIR), Paddy Murphy (IDFG), Jamie Swan (BPA), Jody Brostrom (USFWS), Lynn Stratton (IDFG), Mark Lere (MFWP), Dan Shively (USFWS), and Mark Briggs (BOR). Attendance is determined by topics on the agenda and attendance at the bi-annual workshops has exceeded 80 participants.

#### Websites –

The Foundation provides support and maintenance of two interactive websites: The CBFWA.org website and the SOTR website (Table A1). The CBFWA.org website ([www.cbfwa.org](http://www.cbfwa.org)) provides access to a fish and wildlife directory, fish and wildlife calendar, fish and wildlife job list, list of acronyms, committee webpages (agendas, action notes, support material, etc.), and more. The site is routinely accessed by individuals to obtain meeting information, general information, and contact information for other professionals working in the area. The SOTR website ([www.sotr.cbfwa.org](http://www.sotr.cbfwa.org)) provides access to fish and wildlife information organized by province and subbasin or by ESU/DPS. The number of hits for these two websites is presented as a metric of performance in Table A1 and illustrates a decline in numbers over the years. This reduction is due to improved accounting methods for tracking website hits, and removing internal hits from the summary report. The SOTR website receives about half as many hits as the CBFWA website. The SOTR website is an important element of the NPCC's Council proposed HLI Report. Users of these websites include the fish and wildlife managers, BPA, Council, NOAA Fisheries, USFWS, ISRP members, academic institutions, general public, etc. from within the Columbia River Basin and across the United States.

#### General Comments:

It is important to note that not all coordination results in deliverables and products. Many coordination efforts result in mis-starts or dead-ends; the importance is in the effort and communication that occurs in attempts to find common ground. An example of this is the Data Management Framework Subcommittee efforts in 2006 during which there were attempts to align data management to support salmon and steelhead reporting (<http://www.cbfwa.org/conferences/FY06Data/>). The subcommittee organized a workshop with the same agenda and facilitator used for the recent Coordinated Assessments Project. The workshop led to restructuring elements of StreamNet, but made very little progress in re-aligning data management activities among the agencies and tribes. The agencies and tribes were just not ready. Four years later a similar workshop with the same facilitator made tremendous strides forward. The difference between the two workshops was the progress that occurred, in a large part due to the first workshop, within each of the agencies and tribes (<http://www.pnamp.org/> and <http://www.pnamp.org/event/3017>). However, the first workshop was not considered a success.

Another very important aspect to the success of Foundation facilitation processes over the years, is the integration that occurs among the various forums due to a common centralized staff. The facilitators coordinate their activities within the separate forums to ensure compatibility of products and deliverables. Examples of this alignment include the CBFWA 2008 Program Amendment recommendations and the recent draft monitoring strategies developed through focus workgroups. If facilitation of each focus workgroup were performed through separate contracts with independent consultants, that integration may be lost.

### **3) Examples of Recent Deliverables (2005 – Present)**

#### **1) CBFWA 2009 Fish and Wildlife Program Amendment Recommendations –**

The CBFWA developed and submitted a comprehensive set of proposed amendments to the NPCC during the 2009 Program Amendment process. The amendments were a consensus product of all CBFWA members, and included amendments to the over-arching framework of the Program, as well as to specific anadromous fish, resident fish, and wildlife components of the Program. Most proposed amendments were adopted into the Program. The CBFWA Program Amendment Recommendations and CBFWA Final Comments on Draft Program are available at [http://www.cbfwa.org/Committees/Meetings/2008\\_0404/2008\\_Apr4\\_FWMGRS\\_CBFWASubmittal\\_FINAL.pdf](http://www.cbfwa.org/Committees/Meetings/2008_0404/2008_Apr4_FWMGRS_CBFWASubmittal_FINAL.pdf).

#### **2) Monitoring Implementation Strategies to Support the NPCC's Draft MERR Plan –**

In 2009, the CBFWA members directed the Foundation staff to coordinate and facilitate basin-wide assessments for the purpose of evaluating the status of the species and implementation of strategies to help determine the success of the Program. Due to the overlap in work priorities and planning activities, the

Foundation and NPCC staffs worked together to coordinate their efforts to develop implementation strategies for the NPCC's MERR Plan. It was agreed that focus workgroups would initiate the development of the implementation strategies with the NPCC staff joining the effort to ensure the needs of the MERR Plan were being met through the effort. This approach was consistent with the goal of the draft MERR Plan to assess the progress of the Program while avoiding duplication of monitoring efforts, in the most cost effective way. The NPCC will ultimately be responsible for the implementation strategies, based on the recommendations by the fish and wildlife managers; however, the fish and wildlife managers and other stakeholders require these strategies to support the SOTR Project and their own decision processes. The Foundation staff has coordinated and facilitated the following efforts in an attempt to develop implementation strategies for the NPCC's MERR Plan:

- Draft Anadromous Salmonid Monitoring Strategy (ASMS) – Foundation staff helped coordinate, organize, and convene sub-regional and regional workshops to formulate a regionally-approved monitoring strategy including specific populations monitored and parameters measured. Foundation staff continues to assist NPCC staff in preparing and updating the written framework for the strategy. The most recent draft of the ASMS is available at: <http://www.nwouncil.org/fw/merr/Anad.htm>.
- Draft Columbia River Basin Collaborative Data Sharing Strategy: Salmon and Steelhead Population Abundance and Productivity Indicators – Foundation staff, in collaboration with PNAVP and StreamNet coordinated and facilitated the completion of the Basin-wide Data Sharing Strategy as a follow-up to the ASMS in order to guide data management project reviews for BPA funding, as well as, provide guidance to other funding processes. The most current draft can be viewed at: <http://www.nwouncil.org/fw/merr/Anad.htm>.
- Resident Fish Implementation Strategies – Foundation staff, working closely with NPCC representatives, coordinated and facilitated resident fish managers in an effort to complete implementation strategies for resident fish. The latest focal species, habitat, and hatchery monitoring and evaluation templates, organized by subbasin and management unit/population, are available at: <http://www.cbfgwa.org/RFMS/>. The most current documents will also be submitted with appropriate resident fish projects during the Resident Fish Category Review.
- Wildlife Monitoring Implementation Strategy (WMS) – Foundation staff, working closely with NPCC and BPA staffs, wildlife managers, and other stakeholders, coordinated and facilitated efforts that led to the completion of the first iteration of the WMS that is available at: <http://www.cbfgwa.org/WMS/>. This document will continue to be updated over time.

### 3) 2008 Predation Workshop –

Foundation and BPA staffs collaborated to coordinate, organize, and convene a workshop to address predation of juvenile salmonids by non-native fish in the Columbia River Basin. The workshop included technical presentations, a panel discussion, and facilitated discussions. Attendance for the meeting included 94 participants representing fish management and research agencies, action agencies, and other stakeholders. A follow-up meeting led directly to the development of proposals for funding as part of the Program. Information pertaining to the meetings can be viewed at: <http://www.cbfgwa.org/RegionalIssues/Correspondence/CBFGVAPredationWorkshop2008SummaryReport.pdf>.

### 4) Lamprey Reports –

Foundation staff helped coordinate, organize, and convene a regional workshop of the LTWG to discuss and prioritize critical uncertainties for anadromous and resident lampreys in the Columbia River Basin. The Foundation staff has coordinated and facilitated efforts to develop the following documents:

- *Critical Uncertainties* - The document describes the methods used to generate and prioritize the list of critical uncertainties and provides recommendations for how the results should be used. Additionally, the document contains key strategies to address each critical uncertainty. The document is intended to guide lamprey conservation, management, research, and funding decisions in the basin. The document provides technical recommendations regarding the information and actions needed to conserve lamprey in a prioritized and consistent manner and can be viewed at: [http://www.cbfgwa.org/Committees/LTWG/meetings/2010\\_0311/LampreyCriticalUncertaintiesFinalApril19\\_2005.pdf](http://www.cbfgwa.org/Committees/LTWG/meetings/2010_0311/LampreyCriticalUncertaintiesFinalApril19_2005.pdf).
- *Trans-locating Adult Pacific Lamprey within the Columbia River Basin: State of the Science* - Foundation staff coordinated and facilitated the preparation of the review paper and served as lead author and editor. The LTWG, and endorsed the report. The objective of the effort was to provide a review of translocation programs in the Columbia River Basin. Summaries of the importance of Pacific lamprey to Native American tribes, important life history features, status and trends of Pacific lamprey in the Columbia River Basin, migration behavior, and factors for decline provide context for the use of translocation as a tool for reintroducing or augmenting lamprey populations. The report discusses the potential benefits and risks associated with translocation. This is a review paper and is not meant to support or refute any position regarding the use of translocation. This review is available at: [http://www.cbfgwa.org/Committees/LTWG/meetings/2011\\_0331/TranslocatingAdultPacificLamprey31March2011.pdf](http://www.cbfgwa.org/Committees/LTWG/meetings/2011_0331/TranslocatingAdultPacificLamprey31March2011.pdf).
- *Lamprey Passage Metrics* - Foundation staff coordinated and facilitated the development of a LTWG document identifying potential passage metrics for lamprey and determining which of the metrics are measurable with scientific rigor. A draft of Phases I and II are complete. Phase I identified potential research metrics that quantify indirect or direct effects on survival and fitness of juvenile and adult Pacific lamprey related to up- or downstream passage. Phase II resulted in the evaluation of which of the metrics are measurable with scientific rigor and quantify effects of biological relevance.
- Biannual Lamprey Technical Workgroup symposium and workshop - Foundation staff helped organize and facilitate twice yearly meetings of the LTWG and the biannual lamprey symposium and workshop hosted by the LTWG. See: [http://www.cbfgwa.org/Committees/LTWG/meetings/2007\\_0807/LTWG%20Workshop%20Proceedings%20August%207%202007.pdf](http://www.cbfgwa.org/Committees/LTWG/meetings/2007_0807/LTWG%20Workshop%20Proceedings%20August%207%202007.pdf), and <http://www.cbfgwa.org/committees/Meetings.cfm?CommShort=LTWG&meeting=all> (November 18, 2009 presentations).

### 5) Fish Screen Workshops and Courses -

Foundation staff coordinated, organized, and convened a regional workshops and training courses focusing on fish screen and passage issues for affecting anadromous fish in the Columbia River Basin. Listed below are the events that the Foundation's staff recently organized:

- Biannual Pacific Northwest Fish Screening and Passage Workshop - Foundation staff coordinated, organized, and facilitated quarterly meetings of the Fish Screening Oversight Committee and the biannual *Northwest Fish Passage and Screening Workshop* routinely attended by 80-100 biologists, technicians, and engineers from throughout the Pacific Northwest. For information about the workshops, please visit: [http://www.cbfgwa.org/Committees/FSOC/meetings/2008\\_0909/2008PacificNWscreensPassageWS\\_Agenda\\_Registration.pdf](http://www.cbfgwa.org/Committees/FSOC/meetings/2008_0909/2008PacificNWscreensPassageWS_Agenda_Registration.pdf), [http://www.cbfgwa.org/Committees/FSOC/meetings/2009\\_0914/2009screeningPassageWorkshopInformation.pdf](http://www.cbfgwa.org/Committees/FSOC/meetings/2009_0914/2009screeningPassageWorkshopInformation.pdf), and [http://www.cbfgwa.org/Committees/FSOC/meetings/2011\\_0728/13-15Sept2011\\_PNW\\_FishScreenPassageWorkshopPacketDoc.pdf](http://www.cbfgwa.org/Committees/FSOC/meetings/2011_0728/13-15Sept2011_PNW_FishScreenPassageWorkshopPacketDoc.pdf).
- Biannual Fish Passage Training Course - Foundation staff coordinated, organized, and facilitated the *2010 Training Course of Fish Passage*. More than 40 biologists and engineers attended the three-day course, with instructors being primarily NMFS engineers. To learn more about the training course, please see: [http://www.cbfgwa.org/Committees/FSOC/meetings/2010\\_0913/FSOC\\_2010\\_Training\\_Announcement.pdf](http://www.cbfgwa.org/Committees/FSOC/meetings/2010_0913/FSOC_2010_Training_Announcement.pdf).
- Review and technical endorsement of NMFS criteria for horizontal screens - Foundation staff coordinated and facilitated the review and technical endorsement of new NMFS criteria for passage of juvenile anadromous salmonids at horizontal screens.

### 6) Status of the Resources Website and Annual Report –

Since 2006, the Foundation's staff has coordinated and facilitated efforts associated with the development and maintenance of the SOTR Project's website and annual report. The Project's website and annual report are available at: [http://sotr.cbfgwa.org/HLI\\_summary.cfm?mnu=HLI](http://sotr.cbfgwa.org/HLI_summary.cfm?mnu=HLI).

### 7) CBFWA Satisfaction Survey –

In 2010, the Foundation's staff developed and conducted the first customer satisfaction survey for the CBFWA project. Results from the survey are available at: [http://www.cbfgwa.org/Committees/Members/meetings/2011\\_0310/2010CBFWAOrganizationandStaffSurveyReport\(FINAL\).pdf](http://www.cbfgwa.org/Committees/Members/meetings/2011_0310/2010CBFWAOrganizationandStaffSurveyReport(FINAL).pdf).

## Assessments

More details about assessments of this project are available in the [Assessments](#) area.

### Review: FY07-09 Solicitation Review


Independent Scientific Review Panel Assessment:

Completed Date: 8/31/2006  
 Review: FY07-09 Solicitation Review  
 Final ISRP Rating: Meets Scientific Review Criteria (Qualified)

Council Recommendation:

Completed Date: 10/23/2006  
 Review: FY07-09 Solicitation Review  
 Recommendation: Under Review



Response to past ISRP and Council comments and recommendations: 

The last ISRP review of the project was during the FY2007-2009 funding process. The ISRP provided the following comments: “The recommended qualification to funding is that the project should develop an approach to monitor its impact in terms of changes in behavior and value to the members. In addition to the PISCES metrics, it would be useful to have CBFWA develop member-feedback instruments to evaluate member assessment of effectiveness and impact. In addition, the new cluster of products included under the Status of the Resource report provides an opportunity for user evaluation of product utility” (ISRP 2006).

A survey of current and former members, NPCC and BPA personnel, as well as representatives from other natural resource entities was conducted in 2010. The effort represented the first attempt to perform a large-scale survey of a coordination project funded through the NPCC’s Program. The questions presented to the sample population were designed to obtain feedback from all stakeholders and agencies in an attempt to evaluate the effectiveness and value of the organization’s coordination services, SOTR Project, and staff during 2010 (CBFWA 2011a). To view the final report, please visit: [http://www.cbfwa.org/Committees/Members/meetings/2011\\_0310/2010CBFWAOrganizationandStaffSurveyReport\(FINAL\).pdf](http://www.cbfwa.org/Committees/Members/meetings/2011_0310/2010CBFWAOrganizationandStaffSurveyReport(FINAL).pdf).

Based on the results of the 2010 survey, the Foundation recognized that surveys can be an invaluable tool for reaching out to key audiences to assess a wide range of issues and obtain meaningful, actionable feedback. Subsequently, surveys will be conducted for each focus workgroup to ensure the required actions are taken to allow the workgroups to remain useful and be of an interest to a broad user group. The target population for each annual survey will be all natural resource professionals that during the Fiscal Year: 1) participated in meetings facilitated through the respective workgroups, 2) visited the SOTR website, and/or 3) sought assistance from the workgroup facilitators. The sample will also include Council members/staff and BPA employees.

The project has also changed how it presents results in its annual report to BPA for contract performance. We now track number of meetings, meeting attendance, level of representation, and deliverables much more closely. Tracking changes in behavior is more difficult; however, we continue to develop mechanisms for tracking collaborative products from coordinated groups to eventual policy documents adopted by decision makers. A key development as a result of the recent Coordinated Assessments Project is the development of individual data management plans for each agency and tribe. These new policy documents are a direct result of regional coordination activities conducted through the project.

 **Adaptive Management**

Management Changes: 

The project has undergone significant changes over the years, in alignment with changes in focus of the adaptive management phases of the NPCC’s Program (Planning, Implementation, and Evaluation). The role of the Foundation has changed, as well. Initially, the fish and wildlife managers used the CBFWA forums to develop common planning strategies and peer-review project proposals. This helped ensure that priority work was implemented, and that adequate funding was available. Through the Foundation, the fish and wildlife managers concentrated on planning issues, identifying fish and wildlife losses, and identifying priorities for actions to mitigate those losses.

Work then started shifting towards establishing an adequate budget to mitigate for losses and developing projects to address those losses. During the late 1990’s, this project focused on setting management priorities through project review and selection, and developing justification and estimates for appropriate mitigation funding levels for the Program. Eventually, proposed projects exceeded available funding, so work included developing justifications necessary to prioritize among projects. This included development of subbasin summaries and plans from 1990 through 2004. Work also began on establishing a monitoring and evaluation framework through the CSMEP project.

More recently, the Fish Accords were signed and the 2009 Program was adopted. This established much of the planning and budgets for the Program. A primary focus for this project was project/program evaluation, during this period. Currently, the focus of this project is on the development of coordinated assessments to ensure adequate information is available to inform decision-making processes. The logical next step will be revising planning documents such as subbasin plans to ensure consistency with evaluation metrics.

 **Project Documents & Reports**

**Public Attachments in Pisces**

| ID      | Title   | Type                     | Period           | Contract     | Uploaded |
|---------|---|--------------------------|------------------|--------------|----------|
| P102635 | <a href="#">Annual Progress Report for CBFWA Annual Work Plan, April 1, 2006 - March 31, 2007</a> | Progress (Annual) Report | 4/2006 - 3/2007  | 20620 REL 8  | 6/22/07  |
| P105569 | <a href="#">Northwest Environmental Data Network Annual Report</a>                                | Progress (Annual) Report | 10/2006 - 3/2007 | 20620 REL 6  | 2/12/08  |
| P106287 | <a href="#">FY 2007 SOTR</a>  | Progress (Annual) Report | 4/2007 - 3/2008  | 20620 REL 12 | 4/11/08  |
| P106281 | <a href="#">Coordination Definitions</a>  | Other                    |                  | 20620 REL 12 | 4/11/08  |
| P106964 | <a href="#">FY 07 CBFWA Annual Accomplishments</a>  | Progress (Annual) Report | 4/2007 - 3/2008  | 20620 REL 12 | 6/19/08  |
| P107279 | <a href="#">CBFWA Annual Work Plan Accomplishments, April 2005 - March 2006</a>                   | Progress (Annual) Report | 4/2005 - 3/2006  | 20620 REL 2  | 7/14/08  |
| P112003 | <a href="#">CBFWA Accomplishments 2008</a>  | Progress (Annual) Report | 4/2008 - 3/2009  | 20620 REL 15 | 6/9/09   |
| P115853 | <a href="#">CBFWA Annual Report to BPA for FY2009</a>   | Progress (Annual) Report | 4/2009 - 3/2010  | 20620 REL 15 | 4/2/10   |
| P116015 | <a href="#">2008 Status of the Resource Report</a>  | Progress (Annual) Report | 5/2009 - 3/2011  | 20620 REL 15 | 4/15/10  |
| P117375 | <a href="#">Announcement of web enhancements to SOTR</a>  | Other                    |                  | 20620 REL 23 | 7/27/10  |
| P117376 | <a href="#">Coordinated Assessments Work Plan - July Draft</a>                                    | Other                    |                  | 20620 REL 23 | 7/27/10  |
| P117879 | <a href="#">Status of Fish &amp; Wildlife Resource in the Columbia River</a>                      | Progress (Annual)        | 1/2001 - 8/2010  | 20620 REL    | 8/30/10  |

|         | Basin  | Report                   | 23                                       |
|---------|--|--------------------------|--|
| P118335 | <a href="#">October 5-6, 2010 Data Sharing Workshop Agenda</a>                             | Other                    | 20620 REL 10/11/10<br>23                 |
| P118336 | <a href="#">CBFWA Annual Work Plan, 2009 - 2010</a>  | Progress (Annual) Report | 4/2010 - 9/2010 20620 REL 10/11/10<br>23 |
| P120713 | <a href="#">CBFWA Annual Work Plan - 2010 Annual Report</a>                                | Progress (Annual) Report | 4/2010 - 3/2011 20620 REL 4/5/11<br>23   |
| P122045 | <a href="#">Columbia Basin Fish and Wildlife Authority Annual Work Plan, 4/10 - 3/11</a>   | Progress (Annual) Report | 4/2010 - 3/2011 20620 REL 7/14/11<br>26  |
| P122043 | <a href="#">2011 Status of the Fish and Wildlife Resources in the Columbia River Basin</a> | Progress (Annual) Report | 4/2011 - 6/2011 20620 REL 7/14/11<br>26  |
| P122044 | <a href="#">Email notice of Quarter 1 updates to the SOTR website</a>                      | Other                    | 20620 REL 7/14/11<br>26                  |
| P122047 | <a href="#">CBFWA meeting attendance report for staff and Members</a>                      | Other                    | 20620 REL 7/14/11<br>26                  |

**Other Project Documents on the Web**

<none>

**Project Relationships**

The Project Relationships tracked automatically in cbfish.org provide a history of how work and budgets move between projects. The terms "Merged" and "Split" describe the transfer of some or all of the Work and budgets from one or more source projects to one or more target projects. For example, some of one project's budget may be split from it and merged into a different project. Project relationships change for a variety of reasons including the creation of efficiency gains.

**Project Relationships:** This project Split To [2012-004-00](#) effective on 7/7/2011  
 Relationship Description: Starting with the FY12 SOY & contract (April, 2012); Oregon, Idaho and Washington will all have separate projects and contracts. Previously they had a separate contract under project 1989-062-01. This separation will keep those entities that retain their share of coordination separate from CBFWA.

This project Split To [2012-002-00](#) effective on 7/7/2011  
 Relationship Description: Starting with the FY12 SOY & contract (April, 2012); Oregon, Idaho and Washington will all have separate projects and contracts. Previously they had a separate contract under project 1989-062-01. This separation will keep those entities that retain their share of coordination separate from CBFWA.

This project Split To [2012-003-00](#) effective on 7/7/2011  
 Relationship Description: Starting with the FY12 SOY & contract (April, 2012); Oregon, Idaho and Washington will all have separate projects and contracts. Previously they had a separate contract under project 1989-062-01. This separation will keep those entities that retain their share of coordination separate from CBFWA.

**Additional Relationships Explanation:**

1988-108-04, StreamNet - Coordinated Information System (CIS)/ Northwest Environmental Database (NED), Pacific States Marine Fisheries Commission (PSMFC). Relationship: Co-facilitation of the Coordinated Assessments Project, coordination of data management activities between regional biologists and data professionals through the Anadromous Fish and Resident Fish forums, coordination of input into the SOTR Report and Website.

1994-033-00, Fish Passage Center, Pacific States Marine Fisheries Commission (PSMFC). Relationship: There is a historic relationship between CBFWA and the Fish Passage Center (FPC), as the FPC Manager has previously been under the CBFWA Executive Director's supervision. With the changing regional coordination environment, this relationship is also changing. More directly, the SOTR website retrieves mainstem passage and hatchery information from the FPC website. FPC and Foundation staff coordinate and collaborate on complimentary issues.

1996-020-00, Comparative Survival Study (CSS), Pacific States Marine Fisheries Commission (PSMFC). Relationship: The Foundation is a subcontractor for a portion of this long term PIT tag study, providing contract administration for travel reimbursement for several participants and workshop support, as necessary.

1998-031-00, Implement Wy-Kan-Ush-Mi Wa-Kish-Wit, Columbia River Inter-Tribal Fish Commission (CRITFC). Relationship: CRITFC staff regularly participates in regional coordination functions facilitated by the Foundation staff. CRITFC is an active partner of CBFWA.

2003-022-00, Okanogan Basin Monitoring & Evaluation Program (OBMEP), Colville Confederated Tribes. Relationship: OBMEP staff is active in the Coordinated Assessments Project and participate in Anadromous Fish forums facilitated by Foundation staff.

2003-072-00, Habitat and Biodiversity Information System for Columbia River Basin, Northwest Habitat Institute (NHI). Relationship: Foundation staff and NHI staff regularly coordinate through the Wildlife forum to obtain guidance on project priorities for IBIS and coordination of wildlife HLI information to be reported through the SOTR Report and Website.

2004-002-00, Pacific Northwest Aquatic Monitoring Program (PNAMP) Coordination, US Geological Survey (USGS). Relationship: CBFWA is a member of PNAMP. Foundation staff and PNAMP staff co-facilitate the Coordinated Assessments Project and coordinate input on the development of regional tools to assist data management and reporting.

2006-006-00, Habitat Evaluation Project, Columbia Basin Fish and Wildlife Authority (CBFWA). Relationship: The Foundation is the sponsor for the Regional HEP Team (RHT) project and provides oversight to the RHT staff. Foundation staff and RHT staff coordinate with BPA funded wildlife managers through the Wildlife Forum to set survey schedules and provide guidance for the project.

2007-106-00, Spokane Tribe Coordination, Spokane Tribe. Relationship: The Spokane Tribe is a former member of CBFWA. Through their coordination project, staff continues to participate in regional resident fish and wildlife coordination functions co-hosted by the Foundation staff with UCUT staff.

2007-108-00, Upper Columbia United Tribes (UCUT) Coordination, Upper Columbia United Tribes (UCUT). Relationship: UCUT is a partner of CBFWA. Foundation staff work closely with UCUT staff to facilitate resident fish coordination functions and CBFWA staff participates in UCUT hosted events.

2007-162-00, Kalispel Tribe Coordination, Kalispel Tribe. Relationship: The Kalispel Tribe is a former member of CBFWA. Through their coordination project, Kalispel staff continue to participate in regional resident fish and wildlife coordination functions co-hosted by the Foundation staff.

2007-407-00, Upper Snake River Tribe (USRT) Coordination, Upper Snake River Tribes Foundation. Relationship: USRT staff participates in regional coordination functions facilitated by the Foundation staff. USRT is an active partner of CBFWA.

2008-507-00, Tribal Data Network, Columbia River Inter-Tribal Fish Commission (CRITFC). Relationship: CRITFC staff, through this project, participates in the Coordinated Assessments Project, and continue to modify their project efforts consistent with the results of that effort.

2008-733-00, Regional Strategy-Status/Trend, Columbia Basin Fish and Wildlife Authority (CBFWA). Relationship: A specific project funded through CBFWA to facilitate development of a prioritized list of BPA funded M&E projects to support the NPCC's RM&E Category Review. Products delivered on time and under budget.

2009-002-00, Status and Trend Annual Reporting, Yakima Confederated Tribes. Relationship: Foundation staff assisted with scoring and design



of project and currently provides temporary office space for the project employee. This project is closely coordinated with the Status of the Resource Report to ensure compatibility and to minimize redundancy.

2009-010-00, Coeur D'Alene Tribe Coordination Coeur D'Alene Tribe (CDAT). Relationship: The Coeur d'Alene Tribe is a former member of CBFWA. Through their coordination project, CDAT staff continues to participate in regional resident fish and wildlife coordination functions co-hosted by the Foundation staff.

2009-025-00, Grand Ronde Tribe Coordination, Confederated Tribes of Grand Ronde (GRT). Relationship: The Grand Ronde Tribe is not a member of CBFWA. GRT staff participates in regional coordination functions facilitated by Foundation staff (e.g., Wildlife Forum, Lamprey Technical Workgroup, Anadromous Fish forums, Resident Fish forums).

2010-044-00, Colville Regional Coordination, Colville Confederated Tribes. Relationship: The Colville Tribe is a former member of CBFWA. Through their coordination project, CCT staff continues to participate in regional resident fish and wildlife coordination functions co-hosted by the Foundation staff.

2010-085-00, Columbia River Hatchery Effects Evaluation Team (CRHEET), Peven Consulting. Relationship: Foundation staff can assist in coordinating this important effort to coordinate hatchery programs in the Columbia basin to address critical uncertainties in the areas of demographic benefits, short-and long-term fitness effects, and ecological effects of hatchery programs.

2011-012-00, Cowlitz Tribe Coordination, Cowlitz Indian Tribe. Relationship: The Cowlitz Tribe is not a member of CBFWA and has not historically participated in CBFWA forums, but may participate in regional coordination functions facilitated by Foundation staff in the future.

2011-006-00, Columbia Habitat and Monitoring Program (CHaMP), multiple sponsors. Relationship: Foundation staff can assist with coordinating this important effort to monitoring status and trends for habitat.

2012-002-00, Oregon Regional Coordination, Oregon Department Of Fish and Wildlife (ODFW). Relationship: ODFW is a former member of CBFWA. Staff continues to participate in regional coordination functions facilitated by Foundation staff.

2012-003-00, Washington Regional Coordination, Washington Department of Fish and Wildlife (WDFW). Relationship: WDFW is a former member of CBFWA. Staff continues to participate in regional coordination functions facilitated by Foundation staff.

2012-004-00, Idaho Regional Coordination, Idaho Department of Fish and Game (IDFG). Relationship: IDFG will no longer be a member of CBFWA in FY2013. Staff will continue to participate in regional coordination functions facilitated by Foundation staff.

2012-005-00, Siletz Tribe Regional Coordination. Relationship: The Siletz Tribe is requesting regional coordination funding from BPA beginning in fiscal year 2012. It is likely that tribal representatives may participate in regional coordination functions facilitated by Foundation staff.

2012-006-00, Nez Perce Tribe Regional Coordination, Nez Perce Tribe (NPT). Relationship: NPT will receive their regional coordination funding directly from BPA in FY2013. Staff will continue to participate in regional coordination functions facilitated by Foundation staff.

2012-008-00, Montana Regional Coordination, Montana Department of Fish, Wildlife, and Parks (MFWP). Relationship: MFWP will no longer be a member of CBFWA in FY2013. Staff will continue to participate in regional coordination functions facilitated by Foundation staff.

2012-009-00, Salish and Kootenai Regional Coordination, Confederated Tribes of the Salish and Kootenai (CSKT). Relationship: The Salish and Kootenai Tribe will no longer be a member of CBFWA in FY2013. Through this project, staff continues to participate in many of the regional coordination functions proposed to be hosted by the Foundation in this proposal.

## Focal Species

### Primary Focal Species

Bass, Largemouth (*Micropterus salmoides*)  
 Burbot (*Lota lota*)  
 Chinook (O. tshawytscha) - Deschutes River Summer/Fall ESU  
 Chinook (O. tshawytscha) - Lower Columbia River ESU (threatened)  
 Chinook (O. tshawytscha) - Mid-Columbia River Spring ESU  
 Chinook (O. tshawytscha) - Snake River Fall ESU (threatened)  
 Chinook (O. tshawytscha) - Snake River Spring/Summer (not listed)  
 Chinook (O. tshawytscha) - Snake River Spring/Summer ESU (threatened)  
 Chinook (O. tshawytscha) - Upper Columbia River Spring ESU (endangered)  
 Chinook (O. tshawytscha) - Upper Columbia River Summer/Fall ESU  
 Chinook (O. tshawytscha) - Upper Willamette River ESU (threatened)  
 Chum (*Oncorhynchus keta*) - Columbia River ESU (threatened)  
 Coho (O. kisutch) - Unspecified Population  
 Coho (*Oncorhynchus kisutch*) - Lower Columbia River ESU (threatened)  
 Crappie, Black (*Pomoxis nigromaculatus*)  
 Crappie, White (*P. annularis*)  
 Cutthroat Trout, Lahontan (O. c. henshaw) (threatened)  
 Cutthroat Trout, Westslope (O. c. lewisi)  
 Cutthroat Trout, Yellowstone (O. c. bouvieri)  
 Freshwater Mussels  
 Kokanee (*Oncorhynchus nerka*)  
 Lamprey, Pacific (*Lampetra tridentata*)  
 Pike, Northern (*Esox lucius*)  
 Sockeye (O. nerka) - Lake Wenatchee ESU  
 Sockeye (O. nerka) - Okanogan River ESU  
 Sockeye (O. nerka) - Snake River ESU (endangered)  
 Sturgeon, Green (*Acipenser medirostris*)  
 Sturgeon, White (*A. transmontanus*) - Lower Columbia River  
 Sturgeon, White (*Acipenser transmontanus*) - All Populations except Kootenai R. DPS  
 Trout, Bull (*S. confluentus*) (threatened)  
 Trout, Interior Redband (O. mykiss gairdnerii)  
 Trout, Rainbow (*Oncorhynchus mykiss*)  
 Walleye (*Stizostedion vitreum*)

### Secondary Focal Species

<none>

### Emerging Limiting Factors

Limiting factors for effective regional coordination include: 1) perception of fairness, 2) participation and buy-in, and 3) adequate funding for both facilitation and participation. The Program has experienced changes in these limiting factors in the recent past and this project proposal attempts to address those changes.

From 1995-2005, 19 fish and wildlife managers coordinated their involvement in the Fish and Wildlife Program through the CBFWA. The organization was governed by a consensus charter that required full support by all members for any recommendations or actions to proceed. The organization was funded by BPA for specific deliverables, and to avoid in-lieu issues, BPA and NPCC required a written work plan with specific activities and products that supported explicit Program needs. NPCC staff closely monitored spending by the project to ensure accountability of regional coordination funds. CBFWA was able to deliver effective consensus recommendations on project funding, technical guidance, and policy direction to the NPCC and BPA (see Accomplishments Section of this proposal).

In 2005, two tribes withdrew their membership in CBFWA and requested independent funding for regional coordination. Their lack of confidence in the consensus process and their concern that Members and staff were not listening to their needs, affected their perception of fairness in the CBFWA forum and precluded their participation and support of regional products. With reduced CBFWA membership, BPA and NPCC lost their confidence that the CBFWA forum was representative of the collective fish and wildlife managers (BPA\TrToBLipscombCBFWAreAWP\_Enclosure\_6-9-09.pdf).

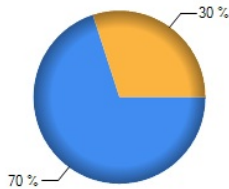
In response to the tribes' request, BPA and NPCC implemented a new funding policy for regional coordination. Until then, regional coordination funding was provided to CBFWA for facilitation functions and dispersed through the Foundation to support participation in regional coordination activities by the individual Members. The Members' participation funding levels were based on the proposed work plan. With the withdrawal of the two tribes, and at their request, BPA determined that regional coordination funding would be equally allocated to each fish and wildlife management entity based on historic cumulative levels, and each entity would determine the ultimate allocation of funding for their portion (either for membership organizations or their own participation). The equal allocation method does not consider the size of the agency or tribe, the previous participation levels of an entity in regional coordination activities, or participation in regional products to support Program needs (See [http://www.cbfwa.org/Regionallssues/Correspondence/ShoBan/SBTcomments-BPA\\_CoordFundsDistr2010Dec20.pdf](http://www.cbfwa.org/Regionallssues/Correspondence/ShoBan/SBTcomments-BPA_CoordFundsDistr2010Dec20.pdf)). In this way, BPA and NPCC relaxed their in-lieu rules around regional coordination funding and did not require specific deliverable based products from individual entities. Since that policy change, there has been a steady loss of membership in the CBFWA organization. The official reasons for withdrawal have been mixed, but primarily refer to a change in fish and wildlife management landscape – lack of support and lack of need to participate. It is anticipated that for FY2012, there will be ten remaining members of CBFWA.

During 2010 and 2011, several BPA and NPCC processes, primarily development of implementation strategies to support the draft MERR Plan, provided Foundation staff opportunity to coordinate and facilitate workgroups for the purpose of developing products to support the Program. As the only coordination group that is based on the premise of coordinating all fish and wildlife managers in the Columbia River Basin, the organization's technical workgroups were able to convene meetings that were inclusive of non-Members and managed without constraint by the organization's charter. Meetings were also co-convened with NPCC staff and others. This approach resulted in past-Members showing an increased interest in participating. Products produced by the workgroups were not identified as a CBFWA product. The organization's staff provided technical assistance and coordination and facilitation services resulting in the production of support materials for various NPCC and BPA needs.

This proposal has been designed to address the limiting factors that have impacted regional coordination in the Program. The CBFWA Members have restructured the organization to allow the Foundation to facilitate workgroups outside of the confines of the CBFWA charter. One workgroup that will be facilitated is the CBFWA organization (Objective 7), but it is anticipated that participation in the other forums (Objectives 1-6) will continue by non-Members. The intention is to continue to provide reliable and useful coordination services for all fish and wildlife managers, BPA, and NPCC staff to support development and implementation of the NPCC's F&W Program.

**Types of Work**

**Work Classes**



■ Planning and Coordination  
■ Research, Monitoring, and Evaluation + Data Management

**Work Elements**

- 99. Outreach and Education
- 115. Produce Inventory or Assessment
- 122. Provide Technical Review
- 156. Develop RM&E Methods and Designs
- 159. Transfer/Consolidate Regionally Standardized Data
- 160. Create/Manage/Maintain Database
- 161. Disseminate Raw/Summary Data and Results
- 174. Produce Plan
- 175. Produce Design and/or Specifications
- 183. Produce Journal Article
- 189. Coordination-Columbia Basinwide

**Resident Fish**

**Please describe which opportunities have been explored to restore or reintroduce resident native fish and their habitats?**

Although the Resident Fish Focus Workgroup provides a forum through which resident fish managers are coordinated to discuss and agree upon the best approaches for habitat restoration and resident fish reintroductions, actual on-the-ground work is not accomplished through this project.

**Has a loss assessment been completed for your particular subbasin/or province?**

No

**Describe how the project addresses the loss assessment. If a loss assessment is in progress or being proposed, describe the status and scope of that work.**

The NPCC's 2009 Program provides for resident fish mitigation where construction and inundation losses have been assessed and quantified by the appropriate agencies and tribes. As the Program states, resident fish habitat loss assessments have generally been quantified in terms of acres or stream miles of key habitat, for [native] focal species, inundated or blocked. The Program further provides that losses are most effectively mitigated by acquiring interests in real property for the primary purpose of preserving, enhancing, restoring, and/or creating fish and wildlife habitat equal to the quantity and quality of habitat lost.

Despite the mitigation provisions, the Program does not prescribe specific methodology for the calculation of lost resident fish habitat due to construction and inundation. Because of this omission, resident fish managers, working through the Resident Fish Focus Workgroup, developed the following draft methodology to be used as a "starting point" quantify inundated resident fish habitat.

The Resident Fish managers recommended that the length or area of the natural aquatic habitat, inundated following impoundment, should be calculated using GIS technology or stream surveys. Waterway length or area inundated should be measured to the full-pool elevation. In addition, if a road system was built, in association with the construction of the reservoir, a survey of culverts and bridges must be performed to ensure they provide for adequate passage. If the culverts or bridges function as barriers to passage and there is no natural barrier between the full pool elevation and the culvert/bridge, then that length of stream above the culvert and below any natural barrier should be included in the survey.

The selection of a method (i.e., area or length) should be at the discretion of the entities involved in performing the survey; however, to standardize the process and ensure a consistent level of accuracy across the basin, the following two steps should be included in all surveys: 1) GIS surveys performed at a scale of 1:12,000 and 2) stream order identified for all waterways inundated. For smaller streams (e.g., mainstem tributaries), length inundated, by stream order, should be identified and then summed to provide total length of a specific stream order lost due to inundation. For mainstem sections (i.e., Columbia River, Snake River, etc), length or area could be used to quantify inundation losses. To calculate area lost in the tributaries or mainstem, average width along with the length of the mainstem section inundate should be used to calculate the acreage of inundated aquatic habitat.

Following the completion of the methodology, discussions with NPCC staff resulted in the NPCC staff offering to convene a set of workshops, similar to the RM&E workshops, prior to the Resident Fish Categorical Reviews. Within that process, the issue of loss assessment methodology and implementation and inclusion in the Program pursuant to categorical reviews would be addressed. These workshops have yet to be convened.

**If you are using non-native fish species to achieve mitigation, have you completed an environmental risk assessment of potential negative impacts to native resident fish?**

No

**Please describe: for the production of non-native fish, what are the potential impacts on native fish populations, including**

**predation, competition, genetic impacts, and food web implications?**

Not applicable to this project.

**Does your proposed work support or implement a production goal identified in a USFWS Bull Trout Recovery Plan?**

No

 **Data Management**
**What tools (e.g., guidance material, technologies, decision support models) are you creating and using that support data management and sharing?**

The SOTR was designed to function as a portal to fish and wildlife data. The website provides, when possible, direct links to all original data and metadata. The site maintains an exhaustive list of references for all data presented.

For the SOTR Project, data are mined and compiled from StreamNet as well as tribal, state, and federal reports. Approximately 95% of the anadromous fish data are from a secondary source (StreamNet). The remaining 5% of the anadromous fish data are from primary sources such as tribal, state, and federal entities. For resident fish, about 25% of the data are derived from StreamNet whereas, 75% of the information is obtained directly from tribal and state fish and wildlife managers. Contributing to the difference between the sources of data for resident and anadromous fish is that many of the organizations that are collecting resident fish data do not have StreamNet contracts. In addition, data for some resident fish populations are collected through non-BPA projects.

**Describe the process used to facilitate receiving and sharing of data, such as standardizing data entry format through a template or data steward, including data exchange templates that describe the data collection methods, and the provision of an interface that makes data electronically accessible.**

Data for the SOTR website and annual report are obtained from a number of sources including StreamNet, Fish Passage Center, NOAA, and BPA. In addition, data are also mined from annual reports that fish and wildlife managers provide directly to the Foundation staff, or reports that are sought out by staff. In many cases, the annual reports are for resident fish projects that are not funded by BPA.

Data are imported into the SOTR in several ways (See Figure DMI in the Accomplishments Section of this proposal). The "Status and Trends" data is imported through a series of excel files. The excel files are updated manually by the Foundation staff and imported into the SOTR database through an administration site. The administration site uses Microsoft SQL Server 2005 Integration Services (SSIS) to automate the data import process. Currently, there are roughly 340 excel files to update status and trends data for the province/subbasin and ESU/DPS sections of the SOTR website. The "Basinwide Summary" section is updated manually based on the format provided by the data sources.

Periodically, the SOTR database is exported to the NPCC to support reporting efforts (e.g., Multi-year Action Plans, HLI's Report, various reports to Congress and Governors, etc.).

**What type of data are you collecting and how are you documenting supporting metadata?**

Starting in 2010, the NPCC began reporting on the Program's progress to Congress, governors, and the public. To communicate the progress, the NPCC approved two lists of indicators, a list of High Level Indicators (HLIs) and a list of Fish and Wildlife Program Indicators (FWIs). Through the summation of the FWIs, the NPCC is able compile the required information to describe the status and trends for each HLI. The NPCC has identified the SOTR website and annual report as the sources from which they will obtain focal species status and trends data. Types of data that are available on the SOTR website and in annual reports include:

## Basinwide Summary-

## Salmon/Steelhead

## Status and Trends

- Status and trends of salmon and steelhead in the Columbia River Basin

## Adult Counts

- Estimates of adult salmon and steelhead counts at the Columbia River mouth

- Counts of adult salmon and steelhead at Bonneville Dam

- Counts of adult salmon and steelhead at Priest Rapids Dam

- Counts of adult salmon and steelhead at Lower Granite Dam

## Hatchery Production

- Hatchery production of salmon and steelhead in the Columbia River Basin

## Harvest

- Columbia River Basin salmon and steelhead harvest

## Anadromous Fish Projects

- Anadromous fish habitat projects in the Columbia River Basin

- BPA-funded anadromous fish habitat project accomplishments

## Salmon Survival

- Survival of adult salmonids through the hydropower system

- Survival of adult Upper Columbia River salmonids from Bonneville Dam to McNary Dam

- Survival of adult Snake River salmonids from Bonneville Dam to Lower Granite Dam

- Straying rates (%) of adult Chinook salmon (2001-08 Pooled) and steelhead (2005-07 Pooled)

- Relative success of adult Chinook salmon and steelhead migrating from Bonneville Dam to Lower Granite Dam

- In-river survival rate of wild juvenile Chinook salmon and steelhead - Lower Granite to Bonneville Dam

- Smolt-to-adult survival rate (SAR; Lower Granite to Lower Granite) for spring-summer Chinook salmon

- Smolt-to-adult survival rate (SAR; Lower Granite to Lower Granite) for wild steelhead

## Predation on Salmonids

- Northern Pikeminnow Management Program

- Avian predation on juvenile salmonids in the Lower Columbia River

- Predation on adult salmonids by sea lions near Bonneville Dam

## Pacific Lamprey

- Trends at Columbia River hydroelectric facilities

- Counts at Bonneville, McNary and Lower Granite dams

## Resident Fish Substitution

- Resident fish substitution for lost anadromous fish opportunities

- Columbia River Basin resident fish substitution releases -

## Resident Fish

- White sturgeon

- Status of white sturgeon in the Columbia River Basin

## Bull Trout

- Recovery units in the Columbia River Basin

- Core area trends/risks

## Resident Fish Projects

- BPA-funded resident fish habitat projects

- Resident fish habitat projects accomplishments

## Wildlife

- BPA wildlife mitigation projects - Wildlife management areas assigned to FCRPS dams

BPA-funded land acquisitions  
Wildlife habitat losses by hydroelectric facilities in the Columbia River Basin  
Geographic Regions (Province and Subbasin)

#### Province Summary-

Status and trends of focal species at the province level  
Hatchery releases and returns to the province  
Salmon and steelhead harvest in the province  
Status and recovery standards for ESA-listed salmon and steelhead in the province  
Bull trout status in the province  
Limiting factors in the province

#### Subbasin Summary-

Status and trends of focal species at the subbasin level (redd counts, adult counts, adult population estimates, juvenile production, and emigration)  
Hatchery releases and returns to the subbasin  
Salmon and steelhead harvest in the subbasin  
Status and recovery standards for ESA-listed salmon and steelhead in the subbasin  
Bull trout status in the subbasin  
Limiting factors in the subbasin

#### ESU/DPS Summary-

Salmon and steelhead  
Status and trends at the MPG level (estimates of natural spawners and red counts)  
Salmon and steelhead harvest in the province  
Limiting factors in the province  
Bull Trout  
Recovery criteria and status (redd counts)  
Limiting Factors

#### Location of Metadata:

The SOTR website functions as a portal to other data warehouses. For all data available through the SOTR website, links are provided that take the user directly to the source of the data and subsequently the metadata. For those data that are collected by directly contacting the fish and wildlife managers, hyperlinks are provided to the reports from which the data are collected.

#### **Please describe the sources from which you are compiling data, as well as what proportion of data is from the primary source versus secondary or other sources?**

For the SOTR Project, data are mined from StreamNet and Fish Passage Center, as well as from tribal, state, and federal reports. Approximately 95% of the anadromous fish data are from a secondary source (StreamNet). The remaining 5% of the anadromous fish data are from primary sources such as tribal, state, and federal entities. For resident fish, about 25% of the data are derived from StreamNet whereas, 75% of the information is obtained directly from tribal and state fish and wildlife managers. Contributing to the difference between the sources of data for resident and anadromous fish is that many of the organizations that are collecting resident fish data do not have StreamNet contracts. In addition, data for some resident fish populations are collected through non-BPA projects.

#### **Describe the accessibility of the data and what the requirements are to access them?**

Data that are mined and compiled through the SOTR project are accessed/viewed via an interactive website. Data can be downloaded directly from the source.

How access to data aligns with the 2009 Program guidance:

As the NPCC suggested in their 2009 Program, easy access to data is essential for effective reporting. Collaborating with the NPCC, BPA, and fish and wildlife managers, the Foundation has established an integrated Internet-based system for the efficient dissemination of data that are relevant to the Program. Through the 2009 Program, the NPCC also suggested that data sites must be adaptively managed to stay current with the evolving needs of data users in the Columbia River Basin. Collaborating with the NPCC and BPA, the Foundation has been able to continuously develop and update the types of data available that the SOTR website and annual reports to meet the needs of the multiple user groups.

### Program Coordination

#### **Proposed Work**

All coordination elements that the NPCC has identified in the Program as integral components of coordination are addressed by this project. Because of the nature of the project, all activities have a system-wide focus. Listed below are the coordination elements. For each element, we have identified specific deliverables (described in greater detail elsewhere in this proposal) accomplished through this project. Please note that most deliverables relate to multiple coordination elements.

Data Management (storage, management, and reporting): 5%

- Continue developing and maintaining the SOTR Project which provides a web-based portal for acquiring and sharing data and information
- Continue coordinating and facilitating the development and implementation of the Anadromous Salmonid Monitoring Strategy, Collaborative Basin-wide Data Sharing Strategy, Lamprey Monitoring Strategy, resident fish implementation strategies, and Wildlife Monitoring Implementation Strategy as they relate to data management and reporting of HLIs
- Coordinate the fish and wildlife managers preparations for participation in the 2014 Program amendment process on issues that relate to data management

Monitoring and evaluation: 10% -

- Continue to develop and maintain the SOTR Project to support reporting of FWIs and HLIs
- Continue coordinating and facilitating the development and implementation of the Anadromous Salmonid Monitoring Strategy, Collaborative Basin-wide Data Sharing Strategy, Lamprey Monitoring Strategy, resident fish implementation strategies, and Wildlife Monitoring Implementation Strategy as they relate to coordinated monitoring and reporting efforts
- Coordinate the fish and wildlife managers preparations for participation in the 2014 Program amendment process on issues that related to monitoring and evaluation
- Continue to coordinate and facilitate discussions among the fish and wildlife managers to support collaboration between and among monitoring and evaluation projects funded by BPA
- Coordinate and facilitate the synthesis of reports to summarize general conclusions of lamprey projects
- Coordinate and facilitate the resident fish managers' efforts to finalize loss assessment methodologies
- Coordinate and facilitate the development of wildlife operation loss assessment methodologies
- Coordinate and facilitate the development of standard business practices and protocols for BPA-funded

wildlife mitigation projects in relation to monitoring and evaluation

Developing and tracking biological objectives: 5% -

- Continue to develop and maintain and update the SOTR Project as biological objectives are defined and adopted
- Continue coordinating and facilitating the development and implementation of the Anadromous Salmonid Monitoring Strategy, Collaborative Basin-wide Data Sharing Strategy, Lamprey Monitoring Strategy, resident fish implementation strategies, and Wildlife Monitoring Implementation Strategy as they relate to identifying biological objectives
- Coordinate the fish and wildlife managers preparations for participation in the 2014 Program amendment process on issues that related to developing and adopting biological objectives

Review of technical documents and processes: 10% -

- Collate and summarize information on estuary and ocean impacts
- Coordinate and facilitate technical reviews of existing and proposed screen criteria for anadromous salmonids, lamprey, and resident fish
- Continue to coordinate and facilitate face-to-face and on-line communication among BPA funded project sponsors
- Continue to provide oversight and guidance to the Regional HEP Team Project
- Continue to provide information updates and analyses for the CBFWA Members
- Continue to coordinate and facilitate the collaborative input from the CBFWA Members
- Continue to provide project- and program-level support to CBFWA Members

Project proposal review: 5% -

- Continue to coordinate and facilitate face-to-face and on-line communication among BPA funded project sponsors
- Continue to provide information updates and analyses for the CBFWA Members
- Continue to coordinate and facilitate the collaborative input from the CBFWA Members

Coordination of projects, programs, and funding sources within subbasins: 20% -

- Continue to develop and maintain the SOTR Project that overlaps projects, programs, and funding sources across the Columbia River Basin
- Continue coordinating and facilitating the development and implementation of the Anadromous Salmonid Monitoring Strategy, Collaborative Basin-wide Data Sharing Strategy, Lamprey Monitoring Strategy, resident fish implementation strategies, and Wildlife Monitoring Implementation Strategy as they identify opportunities to coordinate among BPA funded projects and across other programs and funding sources
- Coordinate the fish and wildlife managers preparations for participation in the 2014 Program amendment process on issues that align various project, programs and funding sources in the Columbia River Basin
- Continue to coordinate and facilitate face-to-face and on-line communication among fish and wildlife managers, stakeholders, and interested parties to align projects, programs, and funding sources to ensure cost effective implementation of the Fish and Wildlife Program
- Continue to coordinate and facilitate face-to-face and on-line communication among federal, state, tribal, and private entities involved in fish and wildlife activities within the Columbia River Basin
- Coordinate and facilitate the development of standard business practices and protocols for BPA-funded wildlife mitigation projects
- Continue to provide oversight and guidance to the Regional HEP Team Project
- Coordinate and facilitate the integration and alignment of wildlife, resident fish, and anadromous fish regional coordination products and processes

Facilitating and participating in focus workgroups on Program Issues: 25% -

- Continue to coordinate and facilitate face-to-face and on-line communications with fish and wildlife managers through the Anadromous, Lamprey Technical Work Group, Fish Screen Oversight Committee, Resident Fish, Wildlife, Status of the Resources, and CBFWA focus work groups
- Continue coordinating and facilitating the development and implementation of the Anadromous Salmonid Monitoring Strategy, Collaborative Basin-wide Data Sharing Strategy, Lamprey Monitoring Strategy, resident fish implementation strategies, and Wildlife Monitoring Implementation Strategy
- Coordinate the fish and wildlife managers preparations for participation in the 2014 Program amendment process on issues that are prioritized by NPCC, BPA, and the fish and wildlife managers
- Collate and summarize information on estuary and ocean impacts
- Continue to synthesis reports to summarize general conclusions of lamprey projects
- Continue to summarize progress on critical uncertainties previously identified and develop updated and revised Critical Uncertainties document
- Continue to coordinate and facilitate the development of technical documents providing information and recommendations to lamprey managers, stakeholders, and interested parties
- Continue to coordinate, organize, and convene the Pacific Northwest Fish Screening and Passage Workshop
- Continue to coordinate and facilitate the implementation of the Fish Passage Training course
- Continue to coordinate and facilitate technical reviews of all existing and proposed screen criteria for anadromous salmonids
- Implement review of existing and development of new screen criteria pertinent to species other than anadromous salmonids
- Facilitate face-to-face and on-line communication among federal, state, tribal, and private entities
- Development of wildlife operation loss assessment methodologies
- Develop standard business practices and protocols for BPA funded wildlife mitigation projects
- Continue to provide travel and participation support to CBFWA Members

Information dissemination: 20% -

- Continue developing and maintaining the SOTR Project
- Continue to coordinate and facilitate face-to-face and on-line communications with fish and wildlife managers through the Anadromous, Lamprey Technical Work Group, Fish Screen Oversight Committee, Resident Fish, Wildlife, Status of the Resources, and CBFWA focus work groups
- Continue to provide and maintain a website for access to the most current information for the focus workgroups
- Collate and summarize information on estuary and ocean impacts
- Coordinate and facilitate the development of a synthesis report to summarize general conclusions of lamprey projects
- Continue to summarize progress on critical uncertainties previously identified and develop updated and revised Critical Uncertainties document
- Continue to coordinate and facilitate the development of technical documents providing information and recommendations to lamprey managers, stakeholders, and interested parties
- Coordinate and facilitate face-to-face and on-line communication among lamprey managers, stakeholders, and interested parties; Pacific Northwest Fish Screening and Passage Workshop; Continue planning and implementation of the Fish Passage Training course
- Coordinate and facilitate face-to-face and online communication among federal, state, tribal, and

private entities

- Continue to provide the region with a web-based portal for information
- Continue to coordinate and facilitate the collaboration, communication, and synthesis of resident fish products
- Coordinate and facilitate the development of standard business practices and protocols for BPA-funded wildlife mitigation projects
- Coordinate and facilitate the integration and alignment of wildlife, resident fish, and anadromous fish regional coordination products and processes
- Provide updates to CBFWA members on issues and processes affecting fish and wildlife in the Columbia River Basin

#### Past Accomplishments

##### a. Describe the Work

See Major Accomplishments under the Summarize History section of this proposal.

##### b. Describe the value-added for the Program and region

Historically, the Foundation had a lead role in providing the NPCC with coordinated efforts, at a basin-wide scale, that assist with implementing the various adaptive management elements that support the Program (i.e., data management; monitoring and evaluation; developing and tracking biological objectives; review of technical documents and processes; project proposal reviews; coordination of projects, programs, and funding sources within subbasins; facilitating and participating in focus workgroups on Program issues; and information dissemination). In recent years, the region has seen an increase in reliance of the fish and wildlife managers on tribal coordination organizations funded by the BPA. Unlike the Foundation, the tribal organizations function at a sub-regional scale and are not designed to initiate collaborative efforts with the federal and state agencies, NPCC, BPA, and other stakeholders at the basin-wide scale. As the NPCC identified in the 2009 Program, its ability to implement the Program benefits from the ongoing coordination efforts of groups, committees, and organizations. Regardless of the number of entities that are formally members of the CBFWA, the Foundation staff has demonstrated the ability to collaborate, on a basin-wide scale, with all fish and wildlife managers, NPCC, BPA, and other stakeholders to assist with the implementation of the NPCC's Program.

From 2009-2011, the Foundation staff collaborated with other coordination groups to facilitate efforts that support the NPCC's Draft MERR Plan. For example, working closely with NPCC staff to develop draft monitoring implementation strategies, Foundation staff took the lead role in coordinating and facilitating the meetings that led to the development of the strategies. The broad agency representation, including former CBFWA members, supports the assertion that the Foundation and its staff are still capable of effectively coordinating and encouraging those entities, many of which were former members, to commit to participating in efforts coordinated and facilitated by Foundation staff.

In the recent development of the Columbia River Basin Collaborative Data Sharing Strategy, Foundation staff was critical to the success of the project. By relying on past relationships, and understanding the participating entities organization and operations, Foundation staff was able to facilitate discussions that led to the development of individual data management plans for the six Tribes and three states that collect and manage salmon and steelhead data which support VSP indicators. One tribe and two states are not current members of CBFWA, yet participated fully. In developing a prioritization scheme for BPA funded data management projects, the Coordinated Assessments project (co-facilitated by Foundation staff) helped each agency and tribe improve their own data management processes and create the beginnings of a Basin-wide data sharing network. This data system will be funded through a multitude of funding sources and will help coordinate monitoring for several regional programs.

During the last several years, the Foundation staff has collaborated with the NPCC staff and Members to identify Fish and Wildlife Program Indicators that can be used to support the NPCC's HLI Report. Working closely with the NPCC, Foundation staff made modifications to the SOTR and subsequently coordinated with the fish and wildlife managers to ensure data were provided that supports the NPCC adopted HLIs and FWIs. The value of these efforts and the usefulness of the NPCC and Foundation relationship were displayed when the NPCC members agreed that the Foundation's SOTR Project should be the source of the Fish and Wildlife Program Indicators.

The value added of the Foundation focus workgroups is true regional coordination among all the fish and wildlife manager, BPA and NPCC staffs to develop common priorities and effective products that support the adaptive management processes envisioned in the 2009 Fish and Wildlife Program. The recent coordination and oversight to regional data management projects by the co-managers has resulted in restructured and focused work plans for StreamNet, CRITFC Tribal Data Network, and NHI-IBIS.

##### Has there been user/member assessment of effectiveness and impact of the work accomplished? If so, describe the outcome and how the results have modified previous and proposed activities over time to increase value of this work.

A survey of current and former members, NPCC and BPA personnel, as well as representatives from other natural resource entities was conducted for calendar year 2010 (CBFWA 2011). The effort represented the first attempt to perform a large-scale survey of a coordination project that is funded through the NPCC's Program. The questions presented to the sample population were designed to obtain feedback from all stakeholders and agencies in an attempt to evaluate the effectiveness and value of the Foundation's coordination services, SOTR, and staff during 2010.

The target population for the annual survey was natural resource professionals that during the Fiscal Year: 1) participated in meetings facilitated through the CBFWA sponsored workgroups, 2) visited the SOTR website, and/or 3) sought assistance from the workgroup facilitators. The sample also included Council members/staff and BPA employees.

Following is a summary of the survey:

##### Survey Respondents:

The survey was sent to 170 individuals

- 96 surveys completed
- Participants: 55 CBFWA members, 15 BPA and/or NPCC representatives, 17 individuals from other natural resource-oriented agencies, and 9 former CBFWA members
- Policy- and technical-level professionals participated, with 49 individuals active at both levels within their organization
- At least 14 individuals from each BPA-funded regional coordination organization participated
- 94% the of respondents participated in CBFWA meetings during 2010
- At least 11 individuals from each CBFWA sponsored workgroup participated

The survey had comprehensive coverage of CBFWA Members and non-members, technical and policy representation, and broad participation across all the CBFWA focus workgroups.

##### CBFWA Organization (all work groups):

- 62% of the respondents believed the role of the CBFWA in 2010 was to facilitate discussions among the agencies and tribes rather than to advocate or inform decision makers
- 89% of the participants rated their overall experience with the organization as average or better



- 93% of the respondents indicated the organization was average or better in comparison to other coordination organizations with 54% rating the experience as above average or excellent
- 80% of the respondents indicated that if the Foundation's coordination services were terminated, there would be at least some impact to their organization's ability to coordinate, at a technical- and policy-level, with fish and wildlife entities from throughout the Basin, and to address or participate in NPCC's Program issues and processes
- 61% of the CBFWA member respondents were satisfied with the effort to implement the 2010 CBFWA Work Plan
- 85% of the CBFWA member respondents agreed the 2010 Work Plan provided opportunities to develop useful technical documents
- 82% of the CBFWA member respondents agreed the 2010 Work Plan provided opportunities to address policy-oriented issues
- 81% of the CBFWA member respondents rated the value of their membership as average or better with 58% of those individuals indicating the value was good to excellent
- 20% of the CBFWA Members meeting participants were dissatisfied or very dissatisfied with the Members' meetings
- 31% of the CBFWA Members meeting participants indicated that Member level coordination services were not very valuable

There was a high level of satisfaction with the CBFWA organization particularly at the technical level; however, coordination at the policy level is not working as effectively as it could.

**Foundation Websites:**

- 87% of the respondents indicated that the Foundation's website provided valuable and useful information
- Most users of the website (66%), used it from time-to-time (once per month)
- 97% of the respondents rated the website as average or better
- 69% of the respondents have visited the SOTR website
- 96% of the respondents found the site to be somewhat to very informative
- 86% found the site to be somewhat to very useful

There is a high level of satisfaction among participants with the CBFWA websites.

**Foundation Staff:**

- 94% of the respondents rated the service provided by the staff as good to excellent
- Of the respondents that had contacted the Foundation staff, 99% indicated that their request was handled to their satisfaction and they valued the interactions and support
- 68% of the CBFWA members are satisfied with the extent to which the Foundation staff keeps them informed on important activities
- 87% were satisfied with the quality of the work of the staff
- 63% of the participants rated the Foundation staff as effective in meeting the needs of the membership
- 31% of the respondents were neutral in their assessment of the effectiveness of the Foundation staff

The CBFWA Membership is satisfied with the performance of the Foundation staff.

To view the final report, please visit:

[http://www.cbfgwa.org/Committees/Members/meetings/2011\\_0310/2010CBFGWAOrganizationandStaffSurveyReport \(FINAL\).pdf](http://www.cbfgwa.org/Committees/Members/meetings/2011_0310/2010CBFGWAOrganizationandStaffSurveyReport(FINAL).pdf).

**Future RME Protocols and Methods**

Although this project is not a "traditional" monitoring and evaluation project, the Foundation does monitor the number of meetings convened, level of representation, and meetings attended. In addition, focus workgroup participants and those that have used the SOTR products (i.e., website and annual report) are surveyed to evaluate the effectiveness and value of the coordination services provided by the Foundation staff.

The target population for the annual surveys are all natural resource professionals that during the Fiscal Year: 1) participated in meetings facilitated through the respective workgroups, 2) visited the SOTR website, and/or 3) sought assistance from the workgroup facilitators. The sample also included Council members/staff and BPA employees. Email invitations are sent to the potential respondents requesting their participation in the survey, assuring them that their responses remain anonymous. A link to the web-based survey is included with the solicitation. Follow-up reminder messages are periodically sent prior to the closing-date for the survey.

**RM&E**

**What type(s) of RM&E will you be doing?**

- Status and Trend Monitoring
- Project Implementation/Compliance Monitoring

**Where will you post or publish the data your project generates?**

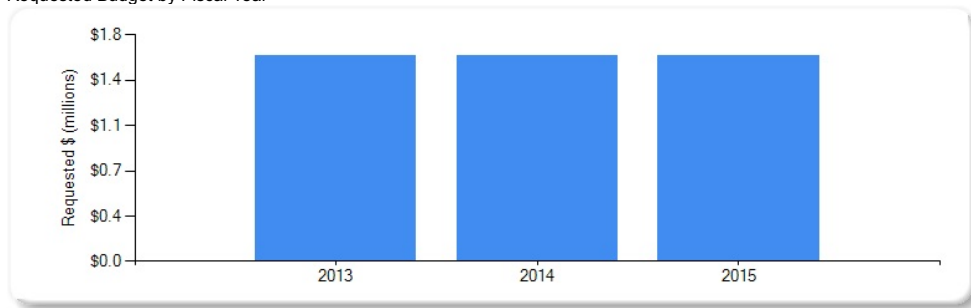
- [CBFWA Status of the Resource Website](#)
- [BPA Pisces](#)

**Project Deliverables & Budget**

| Project Deliverable   | Start | End  | Budget    |
|---|-------|------|-----------|
| DEL 1.1 Continue the development and maintenance of the SOTR website and Annual Report  | 2013  | 2015 | \$482,941 |
| DEL 1.2 Face-to-face and on-line communications with fish and wildlife managers   | 2013  | 2015 | \$160,981 |
| DEL 2.1 Continue to develop and implement the Anadromous Salmonid Monitoring Strategy (ASMS)  | 2013  | 2015 | \$70,122  |
| DEL 2.2 Continue coordinating, implementing, and facilitating the Coordinated Assessments Project   | 2013  | 2015 | \$245,429 |
| DEL 2.3 Coordinate and facilitate habitat effectiveness evaluation discussions among anadromous fish managers   | 2013  | 2015 | \$70,722  |
| DEL 2.4 Coordinate and facilitate hatchery effectiveness evaluation discussion among anadromous fish managers   | 2013  | 2015 | \$140,245 |
| DEL 2.5 Collate and summarize information on estuary and ocean impacts  | 2013  | 2015 | \$35,061  |
| DEL 2.6 Coordinate and facilitate the anadromous fish managers' participation in the 2014 Program Amendment process                                       | 2013  | 2015 | \$140,245 |
| DEL 3.1 Continued updating and implementation of a Pacific Lamprey Monitoring Strategy to coordinate projects and direct data management                  | 2013  | 2015 | \$82,098  |
| DEL 3.2 Summarize progress on critical uncertainties previously identified and develop updated and revised Critical Uncertainties document.               | 2013  | 2015 | \$54,732  |
| DEL 3.3 Continued development of technical documents providing information and recommendations to lamprey managers, stakeholders, and interested parties. | 2013  | 2015 | \$136,830 |

|  |      |              |                    |
|--|------|--------------|--------------------|
| DEL 4.1 Screen and Passage Workshops and Training Courses  | 2013 | 2015         | \$83,520           |
| DEL 4.2 Conduct periodic technical review of all existing and proposed screen criteria for anadromous salmonids  | 2013 | 2015         | \$41,760           |
| DEL 4.3 Implement review of existing and development of new screen criteria pertinent to species other than anadromous salmonids.                        | 2013 | 2015         | \$41,760           |
| DEL 5.1 Continue developing and implementing monitoring strategies for resident fish   | 2013 | 2015         | \$350,612          |
| DEL 5.2 Finalize resident fish loss assessment methodologies   | 2013 | 2015         | \$70,123           |
| DEL 5.3 Prepare and support the resident fish managers for their participation in the upcoming Program amendment process                                 | 2013 | 2015         | \$280,490          |
| DEL 6.1 Continue to coordinate and facilitate the development of the Wildlife Monitoring Implementation Strategy to report wildlife HLIs for the Program | 2013 | 2015         | \$75,487           |
| DEL 6.2 Coordinate and facilitate the development of standard business practices and protocols for BPA-funded wildlife mitigation projects               | 2013 | 2015         | \$113,230          |
| DEL 6.3 Coordinate and facilitate the wildlife managers' participation in the 2014 Program Amendment process   | 2013 | 2015         | \$188,717          |
| DEL 7.1 Facilitate meetings and provide information updates and analyses for the CBFWA Members   | 2013 | 2015         | \$628,502          |
| DEL 7.2 Attend and participate in meetings and activities that relate to fish and wildlife management in the Columbia River Basin                        | 2013 | 2015         | \$261,276          |
| DEL 7.3 Maintain CBFWA website and archive   | 2013 | 2015         | \$157,126          |
| DEL 7.4 Time and travel support to CBFWA Members for participation in regional coordination activities   | 2013 | 2015         | \$804,726          |
|  |      | <b>Total</b> | <b>\$4,716,735</b> |

Requested Budget by Fiscal Year



| Fiscal Year  | Actual Request     | Explanation |
|--------------|--------------------|-------------|
| 2013         | \$1,572,245        |             |
| 2014         | \$1,572,245        |             |
| 2015         | \$1,572,245        |             |
| <b>Total</b> | <b>\$4,716,735</b> |             |

| Item                      | Notes   | FY 2013            | FY 2014            | FY 2015            |
|---------------------------|---|--------------------|--------------------|--------------------|
| Personnel                 | Includes \$58,477 for CBFWA Members time reimbursement.                         | \$908,125          | \$908,125          | \$908,125          |
| Travel                    | Include \$175,431 for CBFWA Members travel reimbursement.                       | \$197,031          | \$197,031          | \$197,031          |
| Prof. Meetings & Training |   | \$15,100           | \$15,100           | \$15,100           |
| Vehicles                  |   | \$0                | \$0                | \$0                |
| Facilities/Equipment      | (See textbox below)   | \$45,600           | \$45,600           | \$45,600           |
| Rent/Utilities            |   | \$76,093           | \$76,093           | \$76,093           |
| Capital Equipment         |   | \$0                | \$0                | \$0                |
| Overhead/Indirect         | Indirect rate is 29.46% for Foundation staff and 12.8% for CBFWA Member funding | \$330,296          | \$330,296          | \$330,296          |
| Other                     |   | \$0                | \$0                | \$0                |
| PIT Tags                  |   | \$0                | \$0                | \$0                |
| <b>Total</b>              |   | <b>\$1,572,245</b> | <b>\$1,572,245</b> | <b>\$1,572,245</b> |

**Major Facilities and Equipment explanation:**

The Foundation maintains office space in the same building as the NPCC in order to provide easy access for meeting participants and facilitate close communication between the NPCC and Foundation staff. Due to shrinking budgets and staff, the Foundation will likely move from its current location; however, a priority is to maintain close location to NPCC offices, light- rail for fish and wildlife manager access, and access to sufficient conference rooms to facilitate meetings and workshops. The Foundation also maintains adequate phone and internet service to support WebEx on-line meeting support to keep meeting costs to a minimum.

**RM&E Protocols and Methods**

There are no RM&E protocols identified for this proposal.

**Cost Share**

| Source / Organization                | Fiscal Year | Proposed Amount | Type    | Description  |
|--------------------------------------|-------------|-----------------|---------|--|
| Burns-Paiute Tribe                   | 2013        | \$25,000        | In-Kind | Participation by tribal representatives not funded by BPA, coordination of internal policies within tribe, collaboration with co-managers to implement outcomes, and contributions of non-BPA funds. |
| Shoshone-Bannock Tribes              | 2013        | \$75,000        | In-Kind | Participation by tribal representatives not funded by BPA, coordination of internal policies within tribe, collaboration with co-managers to implement outcomes, and contributions of non-BPA funds. |
| Shoshone-Paiute Tribes               | 2013        | \$75,000        | In-Kind | Participation by tribal representatives not funded by BPA, coordination of internal policies within tribe, collaboration with co-managers to implement outcomes, and contributions of non-BPA funds. |
| Umatilla Confederated Tribes (CTUIR) | 2013        | \$45,000        | In-Kind | Participation by tribal representatives not funded by BPA, coordination of internal policies within tribe, collaboration with co-managers to implement outcomes, and contributions of non-BPA funds. |
| Confederated Tribes Of Warm          | 2013        | \$45,000        | In-Kind | Participation by tribal representatives not funded by  |

Springs

|  |      |          |         |   |
|--|------|----------|---------|---|
|  |      |          |         | BPA, coordination of internal policies within tribe, collaboration with co-managers to implement outcomes, and contributions of non-BPA funds.  |
| Yakama Confederated Tribes                             | 2013 | \$75,000 | In-Kind | Participation by tribal representatives not funded by BPA, coordination of internal policies within tribe, collaboration with co-managers to implement outcomes, and contributions of non-BPA funds.  |
| Kootenai Tribe   | 2013 | \$50,000 | In-Kind | Participation by tribal representatives not funded by BPA, coordination of internal policies within tribe, collaboration with co-managers to implement outcomes, and contributions of non-BPA funds.  |
| National Oceanic and Atmospheric Administration (NOAA) | 2013 | \$20,000 | In-Kind | Participation by agency representatives not funded by BPA, coordination of internal policies within agency, collaboration with co-managers to implement outcomes, and contributions of non-BPA funds. |
| US Fish and Wildlife Service (USFWS)                   | 2013 | \$75,000 | In-Kind | Participation by agency representatives not funded by BPA, coordination of internal policies within agency, collaboration with co-managers to implement outcomes, and contributions of non-BPA funds. |
| Columbia River Inter-Tribal Fish Commission (CRITFC)   | 2013 | \$35,000 | In-Kind | Participation by agency representatives not funded by BPA, coordination of internal policies within agency, collaboration with co-managers to implement outcomes, and contributions of non-BPA funds. |
| Burns-Paiute Tribe                                     | 2014 | \$25,000 | In-Kind | Participation by tribal representatives not funded by BPA, coordination of internal policies within tribe, collaboration with co-managers to implement outcomes, and contributions of non-BPA funds.  |
| Shoshone-Bannock Tribes                                | 2014 | \$75,000 | In-Kind | Participation by tribal representatives not funded by BPA, coordination of internal policies within tribe, collaboration with co-managers to implement outcomes, and contributions of non-BPA funds.  |
| Shoshone-Paiute Tribes                                 | 2014 | \$75,000 | In-Kind | Participation by tribal representatives not funded by BPA, coordination of internal policies within tribe, collaboration with co-managers to implement outcomes, and contributions of non-BPA funds.  |
| Umatilla Confederated Tribes (CTUIR)                   | 2014 | \$45,000 | In-Kind | Participation by tribal representatives not funded by BPA, coordination of internal policies within tribe, collaboration with co-managers to implement outcomes, and contributions of non-BPA funds.  |
| Confederated Tribes Of Warm Springs                    | 2014 | \$45,000 | In-Kind | Participation by tribal representatives not funded by BPA, coordination of internal policies within tribe, collaboration with co-managers to implement outcomes, and contributions of non-BPA funds.  |
| Yakama Confederated Tribes                             | 2014 | \$75,000 | In-Kind | Participation by tribal representatives not funded by BPA, coordination of internal policies within tribe, collaboration with co-managers to implement outcomes, and contributions of non-BPA funds.  |
| Kootenai Tribe   | 2014 | \$50,000 | In-Kind | Participation by tribal representatives not funded by BPA, coordination of internal policies within tribe, collaboration with co-managers to implement outcomes, and contributions of non-BPA funds.  |
| National Oceanic and Atmospheric Administration (NOAA) | 2014 | \$20,000 | In-Kind | Participation by agency representatives not funded by BPA, coordination of internal policies within agency, collaboration with co-managers to implement outcomes, and contributions of non-BPA funds. |
| US Fish and Wildlife Service (USFWS)                   | 2014 | \$75,000 | In-Kind | Participation by agency representatives not funded by BPA, coordination of internal policies within agency, collaboration with co-managers to implement outcomes, and contributions of non-BPA funds. |

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[http://www.cbfwa.org/RegionalIssues/Correspondence/CBFWA/IEAB\\_116\\_and\\_117\\_CBFWatoNPCC\\_20Feb2008FINALsig.doc.pdf](http://www.cbfwa.org/RegionalIssues/Correspondence/CBFWA/IEAB_116_and_117_CBFWatoNPCC_20Feb2008FINALsig.doc.pdf).

2007. CBFWA-CSMEP. Letter from Chairman Dan Diggs to Greg Delwiche, BPA requesting funding for CSMEP in FY 2008. Submitted to BPA and NPCC Members. (October 3, 2007) 3 Pages.  
[http://www.cbfwa.org/csmep/web/documents/meetings/2007\\_1004/CSMEP\\_FundingLetter\\_to\\_BPAFinal.doc](http://www.cbfwa.org/csmep/web/documents/meetings/2007_1004/CSMEP_FundingLetter_to_BPAFinal.doc).

2007. CBFWA Letter from Larry Peterman, Chair of CBFWA to Stephen Wright, BPA, and Tom Karier, NPCC, requesting consideration of critical unmet needs during the WP-07 Rate Proceedings. Submitted to BPA and NPCC. November 21, 2007. 2 pages. [http://www.cbfwa.org/Committees/Members/meetings/2007\\_1205/CBFWAltr\\_BPA-NPCC\\_WP07RateProceedings112107Final-Encl.pdf](http://www.cbfwa.org/Committees/Members/meetings/2007_1205/CBFWAltr_BPA-NPCC_WP07RateProceedings112107Final-Encl.pdf).

2006. CBFWA Letter from Chairman Ron Trahan to Mark Walker, NPCC, providing comment on CBFWA sponsored coordination projects. (October 6, 2006) 4 pages.  
[http://www.cbfwa.org/RegionalIssues/Correspondence/CBFWA/2006\\_1006CBFWatoNPCC.pdf](http://www.cbfwa.org/RegionalIssues/Correspondence/CBFWA/2006_1006CBFWatoNPCC.pdf).

2006. CBFWA-FSOC. Agencies' letters supporting Farmer's Conservation Alliance (FCA) Fish Screens Efforts. (January 26, 2006) 10 Pages.  
[http://www.cbfwa.org/Committees/FSOC/meetings/2010\\_1028/AgencyLetters\\_ODFW\\_NMFS\\_NRCS\\_USFW\\_FSOC\\_Review11\\_10.pdf](http://www.cbfwa.org/Committees/FSOC/meetings/2010_1028/AgencyLetters_ODFW_NMFS_NRCS_USFW_FSOC_Review11_10.pdf).

2006. CBFWA Letter from Chairman Ron Trahan to Tom Karier, NPCC, providing comment and guidance on a comprehensive data management strategy (comments on Data Center proposal). (June 12, 2006) 2 pages.  
[http://www.cbfwa.org/RegionalIssues/Correspondence/CBFWA/2006\\_0612CBFWatoNPCC.pdf](http://www.cbfwa.org/RegionalIssues/Correspondence/CBFWA/2006_0612CBFWatoNPCC.pdf).

2004. CBFWA Letter from Co-chair Gary Aitken, Sr. to Mark Walker, NPCC, providing comment on the Draft Columbia River Research Plan. (November 30, 2004). 2 pages.  
[http://www.cbfwa.org/Committees/Members/meetings/2004\\_1130/CBFWAResearchPlanResponseLtr113004FINALwAttachments.pdf](http://www.cbfwa.org/Committees/Members/meetings/2004_1130/CBFWAResearchPlanResponseLtr113004FINALwAttachments.pdf)

## Key Personnel

To fully implement the work proposed for Project 1989-062-01, Program Facilitation and Coordination, staffing requirements exceed the Foundation's current capacity. Foundation staff will support the focus workgroups as funding allows. Provided here are resumes for the existing staff. Currently, the coordinators are responsible for coordinating and facilitating multiple focus workgroups. If the project is fully-funded, two additional coordinators (i.e., Anadromous Fish and Wildlife Management Coordinators) and one additional clerical staff will be hired to augment the current staff.

### ASSISTANT DIRECTOR

#### Janice M. Eckman (currently Acting Executive Director)

1987 - Present

#### Duties:

Oversee all Focus Workgroup Facilitators, Facilitate Columbia Basin Fish and Wildlife Authority Focus Workgroups, and Act as CBFWA Historian.

Assists the Executive Director to establish and implement management objectives, priorities, and deadlines to accomplish the objectives of the Members as described in the CBFWA Work Plan and serves as the Executive Director's representative at professional meetings and contract negotiations as directed. Oversees activities of the administrative support staff to ensure quality and timely work products. Performs all duties associated with personnel administration and management (i.e., performance evaluations, position reviews, work plans, development and preparation of performance descriptions and performance review for all CBFWA support staff). Analyzes office operations and procedures for uniformity and efficiency, maintains office operating standards and policies, and oversees comprehensive administration of group benefit policies and reporting requirements. Administers the fiscal staff and approves funding requests, contract proposals, budgets, and statements of work to assure consistency of project requirements. Responsible for assurance that the Columbia Basin Fish and Wildlife Foundation's legal requirements are met in fiscal operations, personnel, employment practices, and general liability coverage. Serves as the CBFWA historian and manager of the CBFWA archives. Currently serves as President of the Columbia Basin Fish and Wildlife Foundation.

#### Past Experience:

2002

*Acting Executive Director, and President of Columbia Fish and Wildlife Foundation, Columbia Basin Fish and Wildlife Authority, Portland, Oregon*

Coordinated agendas for all meetings and maintained a close liaison with the CBFWA Members through frequent individual visits, phone conferencing and periodic meetings in conjunction with the NWPPC meetings, and maintains a liaison between the Members and the natural resource interest groups. Ensured that the CBFWA staff represented all Members equally, performing duties with competence and initiative, but within the limits prescribed by the Authority's positions and Charter. Supervised CBFWA staff and the fiscal affairs of the CBFWA, including preparing annual budgets in consultation with the Fiscal Director and Assistant Director of the CBFWA, and supervises the operations and administration of CBFWA contracts. Represented all policy decisions of the CBFWA Members relative to the Program and responsible for the implementation and monitoring of the policy decisions developed directly between BPA, CBFWA, and NPCC.

1995 - 2002

*Assistant Director for Administration and Vice President of Columbia Fish and Wildlife Foundation, Columbia Basin Fish and Wildlife Authority, Portland, Oregon*

Assisted the Executive Director to establish and implement the management objectives, priorities, and deadlines to accomplish the objectives of the Members as described in the CBFWA Work Plan. Served as the Executive Director's representative at professional meetings and contract negotiations as directed. Supervised activities of the administrative support

staff to ensure quality and timely work products. Performed all duties associated with personnel administration and management (i.e., performance evaluations, position reviews, work plans, development and preparation of performance descriptions and performance review for all CBFWA support staff). Analyzed office operations and procedures for uniformity and efficiency, maintained office operating standards and policies, and oversaw comprehensive administration of group benefit policies and reporting requirements. Administered the fiscal staff and approves funding requests, contract proposals, budgets, and statements of work to assure consistency of project requirements. Ensured that the Columbia Basin Fish and Wildlife Foundation's legal requirements were met in fiscal operations, personnel, employment practices, and general liability coverage.

1987 – 1995

*Executive Assistant, Columbia Basin Fish and Wildlife Authority, Portland, Oregon*

Served as the office manager, overseeing information flow and interoffice work assignments. Supervised the administrative assistant, clerical receptionist and the work products of the data manager. Interpreted necessary action on CBFWA correspondence determines distribution and assigns responses to appropriate CBFWA staff or committees. Oversaw the maintenance of the CBFWA calendar. Establishing a network system and an accounting system.

**Knowledge, skills, and abilities:**

Possesses over 30 year's administrative and managerial experience. Training includes formal education in business, ongoing education and training through management and human resource classes and seminars, and on-the-job training classes offered.

**FISH AND WILDLIFE PROGRAM COORDINATOR**

**Tom K. Iverson**

1999 - Present

**Duties:**

Facilitate Anadromous Fish Focus Workgroups, Wildlife Focus Workgroups, and Columbia Basin Fish and Wildlife Authority Focus Workgroups

Responsible for coordinating input from Federal, State, and Tribal fish and wildlife managers into the development and implementation of the NPCC's Program. Work with CBFWA Members to develop strategic plans for influencing NPCC and BPA decision-making. Perform financial and biological analyses to inform and support CBFWA strategic positions. Assist in preparing issue, information and response papers, and public presentations to the NPCC and others. Work with other CBFWA staff, NPCC staff, and BPA staff to develop meeting agendas, review-process guidelines, and schedules. Work with potential project sponsors at their request to educate and involve them in the process and to assist in the development of project proposals. Work with utility and other interested parties to disseminate information about the Program. Report accomplishments of Program. Annually review BPA funded projects for consistency of implementation with NPCC recommendations. Review and track monthly BPA fish and wildlife project expenditures. Track mainstem issues such as Implementation Team and Biological Opinion litigation and report to membership. Currently serves as Secretary of the Columbia Basin Fish and Wildlife Foundation.

**Past Experience:**

1999 - 2003

*Anadromous Fish Technical Analyst, Columbia Basin Fish and Wildlife Authority, Portland, Oregon*

Responsible for providing technical and policy assistance and analysis to the Anadromous Fish Committee (AFC) in support of its planning and implementation activities including 1) development of work plans for anadromous fish programs (e.g. research, monitoring, and evaluation; capital improvements at dams; subbasin plans), 2) tracking and reporting on the implementation of work plans, 3) annual reporting and evaluation of implementation activities, and, 4) monitor system wide issues such as regional forums and workshops or symposia addressing Columbia River issues. Coordination and facilitation of AFC meetings, development of meeting agendas, ensure timely notification of meetings, and completion and distribution of meeting notes, maintain a record of AFC actions, and provide other administrative assistance in support of AFC meetings at the request of the committee chair. Assist in preparing issue, information and response papers, and presentations to the NPCC and others to advocate CBFWA consensus recommendations. Facilitate various aspects of the NPCC Rolling Provincial Review. Coordinate and facilitate the Business Practices Committee through CBFWA to assist in reinventing the contracting and administration processes at BPA.

1994 – 1999

*Fisheries Biologist/Project Leader, Hydroacoustic Technology, Inc., Seattle, Washington*

Responsible for hydroacoustic evaluations of salmon and trout distributions and migrational characteristics at dams on the Columbia River, and in rivers in Washington, Alaska, and elsewhere in North America. Performed juvenile fish passage studies and bypass evaluations at mid-Columbia public utility district mainstem projects. Also conducted mobile hydroacoustic surveys of fish in lakes and at sea. Duties included study plan development, budget review, equipment deployment, staff hiring and scheduling, data collection, data analysis, and report writing. Perform duties simultaneously with multiple projects. In addition, this position involved instructing hydroacoustic theory and applications at short courses and as guest lecturer at the University of Washington.

1987 – 1993

*Fisheries Biologist III, University of Washington, Seattle, Washington*

Harvest Technology Study, Columbia River. Project leader for investigation of potential commercial harvest techniques for the removal of northern pikeminnow from the Columbia River. Developed research goals, established budgets, monitored spending, hired, scheduled and supervised employees. Established remote field stations. Performed fish sampling using numerous and various capture techniques. Also responsible for data collection, data entry and analysis, report writing and editing, meeting with public and other agencies, developing new fishing gear, and conducting training seminars.

**Education:**

1994 M.S. in Fisheries Management, University of Washington, Seattle, Washington

1989 B.S. in Fisheries Management, University of Washington, Seattle, Washington

**Continuing Education:**

Various workshops on harvest improvements, production facilities, monitoring habitat restoration, PIT tags, identifying research needs, river operations, Endangered Species Act, Anadromous Fish Evaluation Program, and other important facets of managing fish and wildlife populations in the Columbia River Basin.

**Examples of Recent Presentations and Publications:**

In addition to producing the long list of CBFWA reports cited under the Project References:

Iverson, T.K. 2006. Making Cooperative Management Work: Columbia Basin Fish and Wildlife Authority. Pages 159-162 in A.N. Read and T.W. Hartley, editors. Partnership for a common purpose: cooperative fisheries research and management. American Fisheries Society, Symposium 52, Bethesda, Maryland.

Presenter of "Coordinated Assessments for Columbia River Salmon" in the Advances in Data Management and Dissemination: The New Frontier, session at The 2011 Annual Meeting of the American Fisheries Society, September 4-8, 2011. Seattle, Washington.

Convener of a session entitled "Columbia River Hydropower Issues." The 2006 Annual Meeting of the Oregon American Fisheries Society, March 1-3, 2006, Sunriver, Oregon.

Presenter and Panelist for "Partnerships for a common purpose: Cooperative Fisheries Research and Management", Fourth American Fisheries Society/Sea Grant Symposium, Annual Meeting of the American Fisheries Society, Anchorage, Alaska, September 11-15, 2005.

Convener of a session entitled "Monitoring and Evaluation in the Columbia River Basin: Using Locally Derived Data for Regional Decision Making." The 2003 Annual Meeting of the Oregon Chapter of the American Fisheries Society, February 26-28, 2003, Eugene, Oregon.

Panelist for "Planning, Mitigation and Restoration in the Columbia Basin: Point-Counter-Point." The 2002 Annual Meeting of the Western Division of AFS (WDAFS) entitled "Toward Ecosystem-Based Management: Breaking Down the Barriers in the Columbia River Basin and Beyond", Spokane, Washington, April 27 to May 1, 2002.

**FISH AND WILDLIFE PROJECT COORDINATOR**

**Neil Ward**

1999 - Present

**Duties:**

Facilitate Resident Fish Focus Workgroups, Lamprey Technical Workgroup, Fish Screen Oversight Committee, Status of the Resource Focus Workgroup, and Columbia Basin Fish and

**Wildlife Authority Focus Workgroups**

Responsible for coordinating and providing technical assistance to Federal, State, and Tribal fish and wildlife managers in support to their planning and implementation of projects implemented through the NPCC's Program. Facilitate scientific review of projects. Facilitation activities related to the project reviews include: monitoring activities of BPA-funded fish and wildlife projects, facilitating and coordinating project implementation review workshops. Work with CBFWA members to develop annual technical reports, for the NPCC, BPA, utility groups and public that highlight project implementation progress as well as population and habitat status relative to existing biological objectives. Perform technical reviews of projects to inform and support CBFWA strategic positions. Work with other CBFWA staff, NPCC staff, and BPA staff to develop meeting agendas, review-process guidelines, and schedules. Work with project sponsors, at their request, to develop project proposals and address technical and management concerns. Responsible for coordinating and providing technical assistance to Federal, State, and Tribal resident fish managers in support to their activities associated with the NPCC's Program. Activities associated with the resident fish managers include: coordinating schedules, priorities and work tasks, preparing and distributing meeting notices, agendas and action notes and assure that meeting arrangements are made, preparing draft documents for consideration by the Resident Fish Advisory Committee, facilitating scientific review of project management plans to assure consistency with CBFWA Operation, Maintenance and Enhancement Guidelines document, and tracking NPCC resident fish-related activities.

**Past Experience:**

1999 – 2003

*Resident Fish Technical Analyst, Columbia Basin Fish and Wildlife Authority, Portland, Oregon*

Responsible for providing technical and policy assistance to the Resident Fish Committee in support to its planning and implementation activities including the: development of detailed work plans, tracking implementation of specific program activities, evaluation, and annual reporting at the request of the caucus chair, preparation of issue and information papers, presentations to the NWPPC and others, facilitation of scientific reviews of resident fish projects by the resident fish managers and other interested parties, technical analysis for policy recommendations and related issue papers to address resident fish issues.

1996 – 1999

*Research Coordinator, Texas Parks and Wildlife Department, Athens, Texas*

Developed and supervised a fish genetics, health, and water quality laboratory, and planned, organized, directed, and performed associated research. Prepared research proposals, technical reports, manuscripts, and presentations addressing fisheries management, conservation genetics, fish health, and hatchery issues. Other activities include: developed policies and procedures and explored technology applications, coordinated with regulatory authorities to execute appropriate lab procedures, served on the department's research committee, manuscript review committee, and genetics committee. Planned, organized, promoted, and implemented a public outreach program and established productive relationships with the media. Promoted the program via radio, television, newspaper, and magazine interviews, trade shows, educational seminars, and public meetings.

1993 – 1996

*Genetics Research Assistant, Oregon Cooperative Fishery Research Unit, Department of Fisheries and Wildlife Sciences, Oregon State University, Corvallis, Oregon*

Conducted genetic and morphological research of wild and hatchery salmonid populations and analyzed and interpreted data, prepared and edited scientific manuscripts, and communicated findings to diverse audiences.

1993

*Teaching Assistant – Ichthyology, Department of Fisheries and Wildlife Sciences,**Virginia Polytechnic Institute and State University, Blacksburg, Virginia*

Designed and implemented teaching outlines for an ichthyology laboratory, prepared and presented weekly lectures and provided instruction on the safe and proper use of fish collection equipment.

1989 – 1992

*Graduate Research Assistant – Department of Wildlife and Fisheries Sciences, South Dakota State University, Brookings, South Dakota*

Designed, developed, and maintained a fish genetics laboratory and performed genetic and morphological analyses. Prepared progress reports and manuscripts.

**Education:**

1992 M.S. in Wildlife and Fisheries Sciences (Fisheries Management), South Dakota State University, Brookings, South Dakota

1990 B.S. in Wildlife and Fisheries Sciences (Fisheries Management), Texas A&amp;M University, College Station, Texas

**Examples of Recent Presentations and Publications:**

In addition to producing the long list of CBFWA reports cited under the Project References:

Ward, N. E., and D. L. Ward. 2004. Resident fish in the Columbia River Basin: Restoration, enhancement, and mitigation for losses associated with hydroelectric development and operations. *Fisheries* 29(3):10-18.

General meeting co-chair of "2015 American Fisheries Society Annual Meeting", Portland, OR.

Presenter of "Status of the Resources: An Interactive Information Tool", 2008 Idaho Environmental Summit, Boise, ID, November 18-19, 2008.

General meeting chair and program co-chair of "Human Population Growth and Fisheries: The Western Challenge", 2008 Western Division of the American Fisheries Society Annual Meeting, Portland, OR, May 4-9, 2008.

Presenter of "Status of the Resources Project: A Collaborative Data Mining, Compilation, and Reporting Effort for Fishes of the Columbia River Basin", 2007 Oregon Chapter of the American Fisheries Society Annual Meeting Eugene, OR, February 28 – March 2, 2007.

Presenter of "Effects of Federal Columbia River Power System Operations on native Resident Fish: The restoration Challenge", 4th International Reservoir Symposium: Balancing Fisheries Management and Water Uses for Impounded River Systems, Atlanta, GA, June 6-7, 2007.

Presenter of "Status of the Resources: A Collaborative Fish and Wildlife Data Sharing Project in the Columbia River Basin", 2006 Organization of Fish and Wildlife Information Managers Annual Meeting, Minneapolis, MN, October 16-19, 2006.

Organizer and convener of "Resident Fish in the Upper Columbia River Basin: Status, Management, and Restoration Conference", Spokane, WA, June 6-8, 2005.

Organizer and convener of "29th International Kokanee Workshop", Spokane, WA, June 8, 2005.

Presenter of "Resident Fish in the Columbia River Basin: Restoration, Enhancement, and Mitigation Losses Associated with Hydroelectric Development and Operations", 2004 Western Division of the American Fisheries Society Annual Meeting, Salt Lake City, UT, February 29 - March 4, 2004.

Convener of session entitled "Management of Resident Fish in the Columbia River Basin", 2004 Western Division of the American Fisheries Society Annual Meeting, Salt Lake City, UT, February 29 - March 4, 2004.

**SYSTEMS AND DATAMANAGER****Binh Quan**

2007- Present

**Duties:**

Manage and maintain Status of the Resource Website, Focus Workgroup Websites, and Columbia Basin Fish and Wildlife Authority Website.

Responsible for administering Class C network (4 Microsoft Servers/12 workstations), Avaya VoIP Phone System, 5 printers, large format plotter, and various portable equipment. Responsibilities include: managing network upgrades, equipment purchases, and supervise subcontractors, creating and administering SQL Server 2000 databases of fish and wildlife funding and regional coordination data, coordinating data issues with regional entities, managing database-driven website using Coldfusion MX, ASP, CSS, VB, JS, & SQL Server, creating GIS maps for presentation and web, and assemble spatial datasets for streams, land ownership, land cover, etc., and aiding CBFWA members (States, Tribes and Feds) in technical, data & software issues..

**Past Experience:**

2007



*Owner/Consultant, QuanPartners, LLC, Portland, Oregon*

Worked with customers to develop and write technical documents, delivered documents to remote development groups. Contracted with eNucleus, Inc. for continued support and maintenance of their products. Duties included development modifications, data center and hosting services and management of servers and networks. Provide hosting and datacenter services. Managed and supported a windows Server farm.

2007-2009

*Programmer / Project Manager, eNucleus, Inc. (Formerly The TAK group), Vancouver, Washington*

Responsible for the development, management and release of commercial products (www.benefitsaccelerator.com, www.crelab.com, www.myfuelpilot.com). Provided product support to internal and external customers. Provided program enhancements and bug fixes for all applications using Data Junction 5.0, wrote export programs from MSSQL 2000 based on HIPPA standards. Developed reports using Crystal Reports 7 accessing MSSQL Server 2000. Provided server hosting and maintenance (Window/virus updates, backups, troubleshooting). Developed clear and detailed requirements, project plans, including project timelines, budget and resources. Identified and resolved issues between business requirements and technical developers. Successfully managed large projects throughout the project lifecycle. Managed development and engineering teams in the US and India. Delivered offshore engineering solutions. Reported directly to the CEO of company.

Technology: Java, JBuilder 6, SQL Navigator, Oracle 9i, .Net, SQL Server 2000, Delphi, DataJunction and Starteam

1998-2004

*Programmer / Project Manager, The TAK Group, Vancouver, Washington*

Led multiple multimillion dollar development projects for CITGO Petroleum and CILA International. Project includes a turnkey supply chain application for CILA (Government of Venezuela), a virtual oil company application that was released in 10 Latin American countries. Created and tracked project budgets and status. Developed detailed project plans, including project timelines, budgets and resources and presentations to client. Worked with key business and IT stakeholders to define requirements and technical solutions. Managed expectation between internal and external customers. Managed team of developers and analysts through all phases of the project.

Technology: RUP, Java, Jbuilder, SQL Navigator, Oracle 9i and Starteam

*Programmer Analyst*

Worked on a team to design, develop and deliver a turnkey transportation application. System was developed as a client/server application written in Java using Jbuilder and had SQL Server 2000 as a database. Led development team through all phases of the project. Developed several key modules such as the rating/routing, ordering and shipping.

1994-1998

*Software Engineer, Decision Dynamics, Inc.*

Worked on a team to design, develop and deliver client/server applications in the maintenance and petroleum industry. Accomplishments included: Customer Information Network (CrN) for CITGO Petroleum: Used PowerBuilder 4.0, Watcom SQL, Sybase, PVCs to develop system. Developed eMSDS Electronic File Cabinet for Windows: Used Delphi, Watcom SQL and PVCs. Developed purchasing module in a product called DynaStar 2000 Maintenance Management System: Used Delphi, Watcom SQL and PVCs. Assisted in network administration of Novell network.

1993-1994

*Test Engineer, Sequent Computer Systems*

Ran test suites on different Sequent Platforms to identify problems and/or bugs in Sequent's unix releases. Worked with Software Engineers to devise, analyze and improve existing testing procedures. Accomplishments included: Wrote test automation scripts in K and C shell, Analyzed test results and fixed assigned bugs using C.

#### **Skill Set:**

Operating system: Windows 2008/2003 Servers, Windows 7 on desktops

Database: Microsoft SQL Server 2000, 2005 and 2008

Reporting tools: Microsoft SQL Server Reporting Services (SSRS), Coldfusion Reporting

Programming Language: Cold Fusion, C#, HTML, Javascript, ASP.NET, MVC, Web Forms, Visual Basic, LINQ, Query Language

Other tools: ArcGIS 9.2, Adobe CS4 (Flash, Dreamweaver, Photoshop, Illustrator, Publisher)

#### **Education:**

B.S. in Computer Science, Portland State University, 1995

### **EXECUTIVE ASSISTANT**

**Trina Gerlack**

1997 - Present

#### **Duties:**

- Provide clerical support to focus workgroup facilitators.
- Provide administrative/supervisory support to the Executive Director and the Assistant Director.
- Provide accurate typing and editing of documents using Microsoft program applications, including transcription, and posting and assembling attachments for distribution.
- Capture meeting discussions and translate information directly into summary notes using a laptop.
- Receive and transmit information by e-mail, internet, scanning, and faxing.
- Assist and update focus workgroup web pages.
- Assist in maintaining CBFWA office filing system and directory/ mailing databases.
- Maintain Outgoing Chron Log and generate a monthly Chron report.
- Awareness of staff and meeting schedules
- Receive and route telephone calls
- Record and route incoming mail and prepare outgoing mail
- Photocopying, printing and book binding functions
- Security check and office closing procedures
- Maintain Fish and Wildlife calendars and reference book updates
- Assist in inventory of office items
- Assist key operator with office equipment (fax machine, copier, postage meter, cell phones, head-sets, teleconference units, projectors, laptops, etc.) and inventory of equipment locker.
- Preparing and making staff travel arrangements, reserving meeting facilities, and scheduling teleconferences.
- Maintenance of fish and wildlife directory and mailing databases
- Perform additional duties as assigned.

#### **Notes**

<none>

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