

2009

# Working with Partners in Montana, Wyoming, Utah, Colorado, North Dakota, South Dakota, Nebraska and Kansas to Conserve Fish and Wildlife Resources

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**Conserving America's Fisheries**

**U.S. Fish and Wildlife Service  
Department of the Interior**

**Fisheries Program**

**Mountain-Prairie Region Strategic Plan**

**Working with Partners in Montana, Wyoming, Utah, Colorado,  
North Dakota, South Dakota, Nebraska and Kansas to Conserve Fish and Wildlife  
Resources**

**2010 - 2014**

**June 2009**

## **A Message from the Regional Director**

The U.S. Fish and Wildlife Service has a proud heritage in fisheries and aquatic resource conservation. Our Director, has asked each Regional Director to renew our commitment in conserving these valuable resources. In the Mountain-Prairie Region we have a great diversity of fisheries resources from the plains of North Dakota to the Rocky Mountains of Colorado. If we are to be successful in meeting current and future challenges to the fisheries and aquatic resources of the Region, we must continue to create and maintain partnerships such as those fostered by the National Fish Habitat Action Plan and continue to use adaptive management principles. We must partner with others and adapt our management activities to address the accelerated effects of climate change on fish, wildlife and their habitats. We plan to continue refining and improving our Fisheries Program's core population and habitat functions related to assessment, monitoring, planning, production, refugia, fish stocking, habitat restoration, fish passage, fish health, and research.

Despite efforts by the Service and others to conserve fish and other aquatic resources, a growing number of species are declining at alarming rates. The reasons for these declines are linked largely to habitat loss and impacts of harmful exotic or transplanted species. Due to the nature of aquatic species, many of the key stressors are exacerbated by climate change effects on water availability, changes in temperatures and duration and timing of hydrologic regimes such as snow-melt and rain events. There is an urgent need to identify and implement actions that will reverse these alarming trends before it is too late. This Strategic Plan describes the current and future role of our Regional Fisheries Program. This collaborative strategy will hopefully pay big dividends for our aquatic and terrestrial resources.

Our Regional Fisheries Program employees take great pride in their work on fisheries and aquatic resources of the Region. Working closely with our stakeholders and partners at the Federal, State, Tribal, and private levels, I believe we can reach the goals identified in this Strategic Plan for the Fisheries Program. Implementing this Program Plan is one of my highest priorities in the Mountain-Prairie Region.

Regional Director

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## **Executive Summary**

The Mountain-Prairie Region Fisheries Program (Program) of the U. S. Fish and Wildlife Service (Service) historically has played an important role in conservation and management of fish and other aquatic resources and key wildlife resources on tribal and DOD lands. In 2002, a new national vision was developed entitled *Conserving America's Fisheries, U. S. Fish and Wildlife Service Fisheries Program Vision for the Future*. The purpose of this Vision has been to improve the Service's ability to fulfill its resource conservation and management role and to improve relationships with our partners. That Vision was stepped down regionally into a five-year Strategic plan (Plan). Our new five-year extension of that original Plan is the result of ongoing communication with our partners and evaluating our progress, relevance, and emerging challenges.

Through the dedicated involvement of States, Tribes, other governments, other Service programs, private organizations, public institutions, and interested citizens, this Regional Plan outlines desired activities, identifies areas of weakness, identifies challenges and opportunities, and offers solutions in the form of actions. This plan continues to outline our priorities towards improving species populations and their habitats. This Plan will guide the Program into the future. The Plan is consistent with the collective goals and objectives of the many partners who manage fish and wildlife throughout the Service's Prairie-Mountain Region.

This Plan will guide the Program from FY2010 to FY2014: improving working relationships and communication with partners; establishing performance measures by which progress toward conservation goals and objectives can be measured; increasing opportunities for protecting, restoring and enjoying healthy aquatic resources; improving recreational opportunities; strengthening relationships with State and Tribal governments; coordinating research and technology priorities among partners; and establishing a highly competent workforce.

By working with our partners as outlined in this Plan, many great accomplishments in aquatic species and habitat conservation can and will be achieved. However, the Region recognizes that without adequate funding and staffing levels, many of the goals and objectives included in this Plan cannot be accomplished.

## **Introduction**

The Fisheries Program of the U.S. Fish and Wildlife Service (Service) has played a vital role in conserving and managing fish and other aquatic resources since 1871. Today, the Fisheries Program is a critical partner with States, Tribes, other governments, other Service programs, private organizations, public institutions, and interested citizens in a larger effort to conserve these important resources. In 2002, working with its many partners in aquatic conservation through the Sport Fishing and Boating Partnership Council's Fisheries Steering Committee, the Service completed its strategic vision document: *Conserving America's Fisheries, U.S. Fish and Wildlife Service Fisheries Program Vision for the Future*. The Vision includes goals, objectives, and action items on a national scale.

This Regional Strategic Plan is an extension of the Vision and of our first Regional Strategic Plan activities, which covered 2003-2008. This Plan describes actions to be implemented by the Region during the next five-years to fulfill the goals and objectives identified in the Vision. The Fisheries Program and its partners and stakeholders recognize that many responsibilities for managing and conserving fish and other aquatic resources are shared, and overall success is contingent upon the combined knowledge, resources and commitment of each party. Therefore, the Region views this strategic plan as a general contract between the Fisheries Program and those partners and stakeholders that contributed to the development of this document.

## **Vision Statement**

The Service and its Fisheries Program are working with partners to restore and maintain fish and other aquatic resources at self-sustaining levels and support Federal mitigation programs for the benefit of the American public. To achieve this vision, the Fisheries Program is committed to working with our partners to:

1. Protect the health of aquatic and terrestrial habitats.
2. Restore fish, other aquatic resources and key tribal wildlife resources.
3. Provide the public with opportunities to enjoy the benefits of healthy aquatic and terrestrial resources.

## **The Mountain-Prairie Region Fisheries Program**

The Service's Fisheries Program in the Mountain-Prairie Region helps conserve, protect, and enhance aquatic and terrestrial resources and provides economically valuable recreational fishing and hunting to the public and tribes across the Region. The program comprises 12 National Fish Hatcheries; one National Fish Technology Center; one National Fish Health Center; and ten Fish & Wildlife Conservation Offices (FWCO's, formerly known as Management Assistance Offices) serving Colorado, Kansas, Montana, Nebraska, North Dakota, South Dakota, Utah, and Wyoming.

The Region's National Fish Hatcheries produce millions of coldwater, coolwater, and warmwater game fish every year for stocking in public lakes, rivers, and streams. Hatchery-raised fish meet legally mandated "mitigation" requirements and compensate for fish losses caused by federal water projects and associated dams. The Region's hatcheries also raise native

fish and other aquatic wildlife to help restore populations in the wild and to support recovery of threatened and endangered species. Their roles as refugia and for production to maintain climate stressed populations are continually evolving. Two of the hatcheries – one at Ennis, Montana and the other at Saratoga, Wyoming – are part of the National Broodstock Program, providing disease-free and genetically sound eggs to dozens of states, tribes, other hatcheries, and research facilities. These eggs support production of millions of fish for recreational angling opportunities, species recovery and restoration, mitigation, tribal subsistence fishing, and other fisheries activities.

The Fish Technology Center and Fish Health Center, both located in Bozeman, Montana, assist the National Fish Hatcheries by improving aquatic species conservation techniques and methods for the benefit of state and federal agencies and tribes throughout the nation. The work of the Centers also includes fish nutrition and diet development studies, wild fish health surveys, and managing disease threats like whirling disease.

The Fish and Wildlife Conservation Offices support tribal fisheries and wildlife management programs, and work with multiple partners to help preclude the need to list species and assist in recovering threatened and endangered species. Staff at FWCOs assess and monitor populations and their habitats and plan, and implement and evaluate restoration projects. They provide vital conservation contributions by recommending hunting and fishing regulations to Tribes. They also implement invasive species control actions, habitat restoration, and fish passage projects. Species such as Colorado River fishes, cutthroat trout, bull trout, imperiled prairie or desert fishes, and pallid sturgeon are our highest priority species in the Region.

### **Making Decisions and Setting Priorities**

The Fisheries Program embraces a balanced approach toward resource stewardship that recognizes the need to conserve and manage self-sustaining populations and their habitats, and at the same time, provide quality opportunities for responsible fishing and other outdoor recreation activities. All efforts are undertaken in a manner consistent with State and Tribal management prerogatives and are defined in Fishery Management Plans.

To further focus conservation activities, the Service initiated the Strategic Habitat Conservation (SHC) framework in 2006. Strategic Habitat Conservation is a science based framework for making management decisions about where and how to deliver conservation actions most effectively. Working with partners is a fundamental part to SHC and is essential in biological planning, conservation design and conservation delivery. Monitoring and evaluating conservation actions and adapting future management decisions are crucial to successful conservation outcomes. Some examples of the application of the SHC framework in Region 6 include the Colorado River Recovery Program, the Western Native Trout Initiative, and the Missouri River recovery efforts. The SHC framework will also be applied to the additional challenges brought on by climate change.

The Fisheries Program uses seven criteria to decide what activities, opportunities, and issues to address in cooperation with partners. The criteria are based on the identification of a Federal role and a determination of whether or not the Service is the most appropriate Federal agency. The Service will weigh proposed and potential activities by:

- The strength of Federal authority and responsibility;
- The extent to which our efforts will complement others in the fisheries and aquatic resource conservation community;
- The extent to which our tribal wildlife conservation efforts will address the Federal government's trust responsibilities;
- The likelihood that our efforts will produce measurable resource results;
- The likelihood that our efforts will produce significant economic or social benefits; and
- The extent of partner support.
- The extent to which our actions address current and emerging limiting factors such as habitat loss, climate change, and invasive species.

The Region recognizes that without adequate funding and staffing levels many of the goals, objectives and actions presented in this Plan cannot be fully achieved.

## **Program Plans**

### **1. Partnerships and Accountability**

#### **A. Partnerships**

##### **General Comments**

Continued collaboration between the Service, States, other federal agencies and Tribes on priorities, goals and objectives, is essential to effective conservation efforts. Coordination within and outside the Service needs to continually be improved to optimize efficiencies and take best advantage of opportunities.

The Service will maintain a commitment to long-term cooperative programs such as the National Fish Habitat Action Plan. Continued improvement is needed in collaborative decision-making, continuity of support and staff representation, and open communication. In 2006, the Service initiated the Strategic Habitat Conservation (SHC) framework as a reaffirmation of our current business model for successfully achieving conservation goals. One of the guiding principles of SHC is that partnerships are essential for developing conservation strategies and implementing those strategies at a landscape scale. The Fisheries Program's involvement in National Fish Habitat Partnerships is a prime example of implementing the SHC framework. We will also provide capabilities to Landscape Conservation Cooperatives LCC, (i.e. science and conservation alliances) to apply adaptive management on a landscape scale that is effective for aquatic and terrestrial species and populations in addressing the challenges of climate change.

**Goal: Open, interactive communication between the Fisheries Program and its partners.**

##### **Challenges and Opportunities**

Need to overcome the historical challenge of concerns about State, Tribal and Federal rights.

Need to overcome the challenge of changing staff and the lack of temporal consistency and longevity.

Need to continue to improve effective communication among partners.

Need to assist Federal agencies to be more interdependent and more collaborative.

Need to find common ground and overlap in natural resource priorities that can be significantly different among partners.

Need to be committed to the initiation and nurturing of new partnerships and the rejuvenation and revitalization of ongoing partnerships.

Need to continue leveraging fiscal resources through strong, open, and honest partnerships.

## **Objectives**

### **1.1 Develop and improve long-term partnerships with States, Tribes, and other federal agencies, non-governmental organizations (NGOs), and other Service Programs to develop collaborative conservation strategies for aquatic resources.**

#### **Actions**

- a. Continue implementing annual Fisheries Program Summit meetings, for each State in the Region, to include Tribal and State fisheries managers, other Service program managers, other federal agencies and NGOs to identify, plan, coordinate and evaluate work on important fisheries, wildlife and habitat conservation issues and to explore new opportunities to improve government-to-government relationships.
- b. Continue to support all existing regional Fish Habitat Partnerships (FHP) through 2014. Currently recognized FHPs are the Western Native Trout Initiative and the Desert FHP.
- c. By 2010, successfully promote the Great Plains Prairie FHP for recognition by the National Fish Habitat Action Plan Board.
- d. Continue identifying Fisheries facilities and communities suitable for and interested in establishing additional Friends Groups.
- e. By September 30, 2014, work with internal FWS partners (Ecological Services,

National Wildlife Refuges, Law Enforcement, and Partners for Fish and Wildlife) to ensure LCC and other Climate Change Action Plan priorities are successful.

- f. Continue to work with our partners at the Federal, State, Tribal and private levels, to protect our historic fish cultural stations and the Fisheries Program's museum property collections.
- g. By September 30, 2010, work with the Washington Office, Fisheries and Habitat Conservation to develop an initiative to achieve partial National funding for operations of the D. C. Booth Historic National Fish Hatchery.

## **B. Accountability**

**Goal: Effective measuring and reporting of the Fisheries Program's progress toward meeting short-term and long-term fish and other aquatic resource conservation goals and objectives.**

### **Challenges and Opportunities**

Need to ensure that sufficient funding and staffing are dedicated to adequately evaluating and reporting on actions.

Need to clearly define realistic and attainable performance measures and reporting requirements.

Need to adjust programs to increase efficiency based on performance measures.

### **Objectives**

**1.2 Develop and implement performance measures to determine the efficiency and effectiveness of Fisheries Program resource activities and financial accountability.**

### **Actions**

- a. By January 1 of each year, prepare written station work plans for each Fisheries field station in the Region describing work and performance expectations as well as measures for that year.
- b. By March 30, 2010, complete an economic analysis of the benefit to cost ratio of the Service Fisheries Program in the Region. Include the total angler economic impacts of mitigation fish stocking programs, restoration/recovery, habitat restoration, and tribal assistance programs.
- c. Work with the National Fisheries Management Team (Assistant Regional Directors and the Washington Office) to ensure Performance measures are in alignment with the FWS operational plan and accurately represent Fisheries

outcomes.

- d. By October 30, annually share the Fisheries Accomplishment Module and Fisheries Operational Needs information with DOI, our Washington Office, OMB, and our partners and stakeholders.

## **2. Aquatic Species Conservation and Management**

### **A. Native Species**

#### **General Comment**

Native species conservation and management focuses on: 1) restoring declining aquatic species populations to help preclude the need to list under the Endangered Species Act (ESA); 2) recovering those species listed as threatened or endangered; 3) preventing the spread and controlling invasive species; and 4) managing interjurisdictional populations.

Opportunities for protecting, restoring and enjoying healthy aquatic native species resources are characterized into five areas: Planning and Coordination, Habitat, Species Conservation, Information, and Funding. Actions to address challenges and opportunities and to determine work focus areas for native species will employ the five criteria identified in the Implementation section.

**Goal: Self-sustaining populations of native fish and other aquatic resources that maintain species diversity, provide recreational opportunities for the American public, and meet the needs of tribal communities.**

#### **Challenges and Opportunities**

Need to provide adequate flow regimes especially in light of anticipated impacts of climate change.

Need to minimize or prevent predation and competition from non-native species.

Need to continue to address the increasing impacts on native species from aquatic invasive species (AIS).

Need to address concerns about genetic degradation of native aquatic species.

Need to take into account the diverse public demands for fish and wildlife resources.

Need to ensure that Recovery Plans are written, revised and updated; recovery teams are formed; and recovery actions are implemented.

The Fisheries Program's role in recovery plan development differs by species but may be either a key support role or a lead role.

Need to include Non-Governmental Organization's in habitat restoration and threat reduction partnerships.

## **Objectives**

### **2.1 Recover fish and other aquatic resource populations protected under the Endangered Species Act.**

#### **Actions**

- a. By September 30, 2014, assess all current conditions (e.g. quantity and quality) and trends of listed fish and other aquatic resource populations.
- b. By September 30, 2014, stabilize or improve 50 percent of threatened and endangered aquatic species listed a decade or more.
- c. By September 30, 2014, working with other Service programs, complete Recovery Plans for 50 percent of listed fish and other aquatic species.
- d. By September 30, 2014, work with Ecological Services to fulfill 50 percent of requests for endangered species technical assistance on the Department of the Interior (DOI) managed and influenced lands and waters.
- e. By September 30, 2010, define our working list of Recovery tasks for assessment, production, planning, outreach, and evaluation.
- f. Continue implementing 50-100 percent of National Fish Hatchery System (NFHS) recovery production tasks as prescribed in approved Recovery Plans. This is dependent on strong teamwork among other Service branches and responsible Federal agencies.
- g. Meet 100 percent of post-stocking survival targets, prescribed by approved Recovery Plans, for hatchery propagated listed species.

### **2.2 Restore declining aquatic species and maintain self-sustaining populations to preclude the need for listing under the Endangered Species Act.**

#### **Actions**

- a. By September 30, 2014, assess current condition (e.g. quantity and quality) and trends for 100 percent of depleted Federal trust fish and other aquatic resource populations.
- b. By September 30, 2014, complete restoration plans for 50 percent of Federal trust depleted fish and other aquatic resource populations and ensure that climate change stressors are addressed in all new and revised plans.

- c. By September 30, 2010 identify the full complement of restoration plan tasks for priority species in Region 6.
- d. By September 30, 2014, implement 50 percent of Fish and Wildlife Conservation Office tasks as prescribed in approved Fishery Management Plans.
- e. By September 30, 2014, implement 50 percent of production tasks as prescribed in approved Fishery Management Plans.
- f. By September 30, 2014, meet 100 percent of post-stocking survival targets, prescribed by approved Fishery Management Plans, for hatchery propagated depleted species.
- g. By September 30, 2014, identify and provide refugia for 50 percent of fish and other aquatic species identified in Fishery Management Plans due to climate change and other stressors.
- h. Work with partners through existing and new partnership forums (Mississippi Interstate Cooperative Resource Association, National Fish Habitat Partnerships, Landscape Conservation Cooperatives, etc.) to identify the greatest threats to self-sustaining native fish and other aquatic resource populations. Establish monitoring and evaluation processes to assess population trends of species most at risk from climate change and other stressors.

## **B. Aquatic Invasive Species (AIS)**

### **General Comments**

Aquatic invasive species (AIS) are nonnative plants and animals that threaten the diversity or abundance of native aquatic species, the ecological stability of infested waters, and the commercial, agricultural, and recreational activities dependent on those waters. These nonnative introductions are second only to habitat alteration as a factor in the decline of native aquatic species in North America, and climate change will exacerbate the introduction and spread of many AIS. New introductions and the spread of already established invasive species have the potential to add to these declines and hinder efforts to restore already depleted and ESA listed native species. “Invasives” do not include species intentionally introduced by States and FWS to maintain recreational fisheries in altered habitats except for those which are threats to native species in specific areas.

Numerous strategies for assessing, controlling, eliminating or preventing AIS invasions are emerging; these require concerted and persistent efforts on the part of resource managers. To effectively address the many AIS within or near the Region, the partnerships developed among States, Tribes and Federal agencies and other stakeholders need to be continued and expanded.

**Goal: Risks of AIS invasions are substantially reduced and their economic, ecological, and human health impacts are minimized.**

### **Challenges and Opportunities**

- Need to continue to gather reliable baseline data in order to assess areas at high risk for invasions in order to prioritize prevention and control activities.
- Need to incorporate baseline survey data in the standardized Geographic Information System (GIS) driven spatial analysis template.
- Need to develop standardized, landscape-scale, data management, analysis, control, monitoring, and adaptive management methodologies through a national AIS Strategic Plan.
- Need to increase support from state and private aquatic resource conservation partners for AIS prevention and control endeavors.
- Need additional chemical and biological control research efforts.

### **Objectives**

#### **2.4 Prevent new introductions of AIS.**

##### **Actions**

- a. By September 30, 2014, annually conduct 140 surveys for baseline/trend information, early detection and rapid response for aquatic invasive species.
- b. By September 30, 2014, annually support 8 state/interstate management plans to prevent and control AIS.

#### **2.5 Minimize range expansion and population growth of established AIS.**

##### **Actions**

- a. By September 30, 2014, conduct 70 activities to support the management/control of aquatic invasive species annually.
- b. The Regional AIS Coordinator and Fisheries Program will continue to work with the established AIS points-of-contact within each state and other federal agencies.
- c. Utilize the state points-of-contact to improve coordination, prevention, detection, and control programs. Species identified as being of high concern are:
  - A. Zebra/Quagga mussels
  - B. Asian carp
  - C. Salt cedar

- D. New Zealand mudsnail
- E. Certain non-native, predatory fish stocked outside of their historic range (e.g., walleye in western Montana)
- F. Purple loosestrife

- d. By September 30, 2014, work with the states to address AIS pathways in the Region and help the states develop rapid response plans, as appropriate.
- e. Annually review and update as needed each NFH and FWCO Hazard Analysis and Critical Control Point Plan (HACCP).
- f. Annually collaborate with other Regional programs to create or update HACCP plans for each refuge or ES office.
- g. Continue to coordinate and work with the Western Regional Panel on Aquatic Nuisance Species, the 100<sup>th</sup> Meridian Initiative, Colorado River and Missouri River Basin Teams and other interagency and public-private partnerships.
- h. Continue to support the development of AIS Management Plans by Nebraska and Wyoming and provide logistical and technical support in the implementation of all eight Region 6 state plans.

### **C. Interjurisdictional Fisheries (IJ)**

**Goal: Interjurisdictional fish populations are managed at self-sustaining levels.**

#### **Challenges and Opportunities**

The Service is among many authorities, including the States, and various commissions and committees, that set targets to maintain or increase fish populations. We must continue to strive to effectively and cooperatively work with these authorities to avoid conflicting decisions, which may adversely affect intergovernmental relations and measures that affect fish populations. As we and our partners evaluate the effects of climate changes on these populations and their habitats, we will utilize the SHC framework to develop and share expertise in coordination with our partners in order to achieve biological planning, conservation design and ultimately implement conservation actions.

#### **Objectives**

##### **2.5 Co-manage interjurisdictional fisheries.**

#### **Actions**

- a. Continue to assist the lead State agencies in managing 100 percent of harvested populations of IJ fish to desired population condition, as defined in approved management plans (e.g., shovelnose sturgeon, paddlefish).
- b. By September 30, 2014, fulfill 100% percent of requests for interjurisdictional fisheries technical assistance on DOI managed and influenced lands and waters.

**2.6 Support, facilitate, and/or lead collaborative approaches to manage interjurisdictional fisheries at the landscape scale.**

**Actions**

- a. Define our IJ species and managed populations in Region 6.
- b. By September 30, 2014, assist in completing management plans for 100 percent of interjurisdictional fish populations, and ensure they address climate change, invasive species, emerging pathogens and habitat.
- c. By September 30, 2014, assist with the assessment of current condition (e.g. quantity and quality) and trends for 100 percent of interjurisdictional fish populations.
- d. Increase inter-regional coordination concerning species and watersheds where Service involvement is requested by States (e.g. through Mississippi Interstate Cooperative Resource Association, Missouri River Natural Resource Council, NFHAP FHPs, and LCCs).

**a. Public Use**

**a. Recreational Fishing**

**Goal: Quality opportunities for responsible fishing and other related recreational enjoyment of aquatic resources on Service lands, on Tribal and military lands, and on other waters where the Service has a role.**

**Challenges and Opportunities**

Need to increase integration of fishery management and hatchery programs to determine impacts of recreational fish on native species.

Need to consider how best to match public use opportunities with steadily increasing demand.

Need to be cognizant of disturbance to other wildlife caused by recreational fishing.

Need to implement additional recreational fishing programs on NWRs where they would be compatible with refuge goals

Need to increase education and outreach efforts geared towards America's youth, that will spark an interest in recreational fishing and the conservation of aquatic resources.

Need to establish and maintain partnerships with fishing equipment and boat manufacturers to improve the quality of recreational fishing opportunities.

Need to improve access to recreational fishing waters on Service, Tribal and military lands.

Need to use State and Federal fish hatcheries as gateways to recreational fishing and ecological education and other outreach opportunities.

Need to improve web-based informational resources directed at identifying the role of hatcheries and the importance of recreational fishing in local, regional, and national economies.

Need to enhance the quality of the hatchery visitor's experience through hands-on educational programs, educational displays, slide shows and pamphlets, etc.

## **Objectives**

### **3.1 Enhance recreational fishing opportunities on Service and Department of Defense (DOD) lands.**

#### **Actions**

- a. By September 30, 2014, fulfill 100 percent of requests for technical assistance, on Service and DOD lands, that focus on connecting people with nature.
- b. By September 30, 2008, coordinate with States or serve as liaison between States and the NWR System concerning recreational fishing on refuges.
- c. Ongoing: work with Ecological Services to continue to conduct contaminants analysis of fish flesh in waters on Service lands to ascertain levels of harmful contaminants and provide warning signs for anglers using those waters.
- d. Annually, provide potential for 275,000 recreational angler days per year.

### **3.2 Provide support to States, Tribes, and other partners to identify and meet shared or complementary recreational fishing and aquatic education and outreach objectives.**

#### **Actions**

- a. By September 30, 2014, fulfill 100 percent of requests for technical assistance to States, Tribes, and other partners.

- b. By September 30, 2014, develop and implement at least five (5) new outreach or educational events, and continue to support existing and on-going activities to connect people with nature.

### **3.3 Recognize and promote the value and importance of recreational fishery objectives in implementation of other Service responsibilities.**

#### **Actions**

- a. Annually serve 250,000 visitors at NFHS facilities.
- b. Annually provide National Fishing and Boating Week events at 100 percent of NFH in this Region.
- c. Annually, assure that this Region's Fisheries website is kept up-to-date and provide information explaining recreational fishing opportunities in the Region.
- d. Work with other Service programs to explain the importance of recreational fishing to the Fisheries Program and ensure that recreational fishing is viewed and considered important during the planning and decision-making processes of other programs.
- e. Annually, provide potential for 275,000 recreational angler days per year.

#### **D. Mitigation Fisheries**

**Goal: The Federal government meets its responsibilities to mitigate for the impacts of Federal water projects, including restoring habitat and/or providing fish and associated technical support to compensate for lost fishing opportunities.**

#### **Challenges and Opportunities**

Need to determine the relationship between mitigation responsibility and optimum hatchery capability.

Need to determine the relationship between mitigation responsibility, hatchery output, and impacts to wild fish and modify actions to avoid impacts and/or to improve effectiveness.

Need to work with the Federal water development agencies to secure full cost reimbursement of any new and existing mitigation programs.

Need to create a task force to revisit aging mitigation programs and revise mitigation programs to meet contemporary needs and philosophies.

Within the Region, climate change predictions indicate that water quantity will likely decline in many states which may affect reservoir operations and mitigation programs.

## Objectives

### **3.4 Identify the mitigation responsibilities of Federal agencies for Federal water projects.**

#### **Action**

a. As Landscape Conservation Cooperatives are developed, ensure that the Corps and Engineers and Bureau of Reclamation are included as key partners.

### **3.5 Meet the Service's responsibilities for mitigating fisheries at federally-funded water projects.**

#### **Actions**

- a. By September 30, 2010, meet 100 percent of mitigation plan fish production targets.
- b. Analyze the Region's mitigation fish stocking targets and adjust annually during *Fisheries Program Summit* meetings with States and Tribes.
- c. By September 30, 2010, determine the regional NFHS capabilities to meet mitigation responsibilities and recommend improvements to bring the NFHS to full production for mitigation.
- d. Annually, provide potential for 275,000 recreational angler days per year.

### **3.6 Recover 100 percent of costs for mitigation activities associated with hatchery production and stocking from the water project sponsor.**

#### **Action**

- a. Continue to recover full costs from responsible federal agency when providing fish for federal water projects such as the Animas-La Plata Project.

## **4. Cooperation with Native Americans**

**Goal: Assistance is provided to Tribes that results in the management, protection, and conservation of their treaty-reserved or statutory trust natural resources, which help Tribes, develop their own capabilities.**

### **Challenges and Opportunities**

Need to ensure that the Service's Native American Policy is fully implemented.

Need to improve the Service's credibility with Tribes.

Need to focus the Service and Tribal partnerships on resource issues of mutual concern.

Need to continue to establish and support cooperative Tribal fish and wildlife programs.

## **Objectives**

### **4.1 Provide technical assistance to Tribes.**

#### **Actions**

- a. Conduct annual summits with Tribes to discuss fish and wildlife needs.
- b. Continue FWCO Technical assistance and consultation support for fish and wildlife management
- c. Complete four Conservation Officer training sessions annually.

### **4.2 Identify sources of funds to enhance Tribal resource management.**

#### **Actions**

- a. Annually each FWCO will assist partner Tribes with 1 to 3 grants for FW management or habitat restoration by reviewing/commenting on drafts.
- b. Continue Fisheries Restoration and Irrigation Mitigation Act (FRIMA) implementation, as policy and funds allow, to support fishery restoration on Confederated Salish-Kootenai Tribal lands

### **4.3 Recognize and promote the Service's distinct obligations toward Tribes within the Fisheries Program.**

#### **Actions**

- a. Fulfill 100 percent of Tribal Trust fish production requests.
- b. Complete eight Tribal consultations per year associated with issues such as logging, oil/natural gas development, Federal Energy Regulatory Commission (FERC) re-licensing, and section 404 activities.
- c. Facilitate meetings to resolve conflicting resource objectives between Tribes, Tribal Fish and Wildlife Commissions and other governments.
- d. By September 30, 2014, re-visit or develop a Memorandum of Understanding (MOU) with each Tribe in the Region describing how we work together, mutual expectations, identifying contacts, and maintaining a proactive approach to working with Tribes.

- e. Work closely with the Great Plains Tribal Fish and Wildlife Commission and the Montana/Wyoming Tribal Fish and Wildlife Commissions on important issues involving natural resource management activities on Tribal Lands.
- f. By September 30, 2010, include Tribal Assistance in future climate change and landscape management initiatives.
- g. Support development of a national budget initiative to ensure that trust obligations to tribes are met.

## **5. Leadership in Science and Technology**

### **General Comments**

Science and technology form the foundation of successful fish and aquatic resource conservation and are used to structure and implement monitoring and evaluation programs that are critical to determine the success of management actions. The concept of using monitoring to evaluate the success of management actions is a guiding principle of Strategic Habitat Conservation. In addition, the Service's Climate Change Strategic Plan identifies monitoring as a key component of a National Fish and Wildlife Adaption Strategy.

**Goal: Science developed and used by Service staff for aquatic resource restoration and management is state-of-the-art, scientifically sound and legally defensible, and technological advances in fisheries science are available to partners.**

### **Challenges and Opportunities**

Need to continually improve communication among academic institutions, state, federal and tribal fishery resource managers, and Service Fish Technology Centers.

Need timely dissemination of recent scientific findings to fishery resource managers.

Need to increase the use of the peer review process to ensure scientific rigor.

Need to ensure that Recovery Plans are revised to reflect current habitat conditions, situations, species status, and state-of-the art science.

Need to ensure that scientific investigations are designed and implemented to meet standards equal to those of peer-reviewed journals.

Need to create a scientific advisory board to identify local, regional, and national research needs.

### **Objectives**

### **5.1 Utilize appropriate scientific and technologic tools in formulating and executing fishery management plans and policies.**

### **5.2 Develop and share applied aquatic scientific and technologic tools with partners.** **Actions**

- a. By September 30, 2014, implement 50 percent of applied science and technology tasks as prescribed by Recovery Plans.
- b. By September 30, 2014, implement 50 percent of applied science and technology tasks as prescribed by Fishery Management Plans.
- c. By September 30, 2014, 75 percent of DOI watershed units will have current wild fish health surveys
- d. By September 30, 2010, participate in LCC activities and inform internal and external partners regarding capabilities the FTC and FHC have to contribute.
- e. By September 30, 2010 increase the FTC and FHC visibility across FWS programs.
- f. By September 30, 2010, actively guide the use of SSP funds to meet FWS fish research needs via annual meetings with U.S. Geological Survey/Biological Research Division (USGS/BRD) and Fishery Coop Unit leaders at the Region universities to exchange information and identify research needs where USGS/BRD can assist the Service.
- g. By September 30, 2014, revise or develop Hatchery Standard Operational Plans for all NFHs in the Region.
- h. By September 30, 2014, develop or continue eight cooperative agreements with States for fish health support to include cost reimbursement for services provided (e.g., virology testing).

## **6. Aquatic Habitat Conservation and Management**

**Goal: America's streams, lakes, estuaries, and wetlands are functional ecosystems that support self-sustaining communities of fish and other aquatic resources.**

### **Challenges and Opportunities**

Need to provide adequate training and funding to utilize GIS and Watershed Analysis technologies and methodologies to identify major aquatic resource threats.

Need to continue to ensure functional ecosystem restoration is an integrated process that crosses administrative and programmatic boundaries.

Need to use contemporary and emerging hydrological restoration methodologies in restoration processes.

Need to avoid piecemeal stream restoration approaches by identifying the overall causes of habitat condition decline prior to implementing instream restoration measures.

Need to ensure that the best stream evaluation/restoration approaches are utilized (e.g. Rosgen method).

Need to develop diverse regional, landscape, and watershed partnerships to build support and leverage additional resources for aquatic habitat conservation and management.

Need to direct mitigation programs to restore altered habitats and self-sustaining native fish populations to the maximum extent practicable.

## **Objectives**

### **6.1 Facilitate management of aquatic habitats on national and regional scales.**

#### **Actions**

- a. Annually provide fish passage and assessments for priority species.
- b. Support LCCs by providing population status of priority species and fish passage data in formats usable in GIS models and databases on a landscape scale.
- c. Work closely in partnership with recognized and candidate FHPs to develop and implement habitat restoration priorities.
- d. Support NFHAP Science and Data Committee by providing fish populations' status and fish passage data in format usable in GIS models and database.
- e. Maintain GIS database for NFHAP and other native cutthroat trout restoration partners per Conservation Agreements to which the FWS is a signatory and as identified as primary restoration need for up to six native cutthroat trout teams.
- f. Implement Healthy Lands initiatives restoration projects in the Green River Basin in cooperation with regional partners to support SHC and NFHAP goals.
- g. By September 30, 2010, complete all Fish Passage and NFHAP 2009 American Recover and Reinvestment Act (ARRA) projects completed towards habitat restoration goals..

### **6.2 Expand the use of Fisheries Program expertise to avoid, minimize or mitigate impacts of habitat alteration on fish and other aquatic species.**

## **Actions**

- a. By September 30, 2014, reconnect an annual average of up to or at least 100 miles of streams through the completion of fish passage projects.
- b. By September 30, 2014, enhance or restore 10 upland acres, 10 wetland acres, 10 riparian miles, and 10 stream miles of habitat on Tribal, State or private lands to achieve habitat conditions consistent with partnership goals (e.g. NFHAP, Joint Venture, LCC).

### **6.3 Increase the quantity and improve the quality of aquatic and riparian habitat on Service lands.**

## **Actions**

- a. By September 30, 2014, enhance or restore 10 upland acres, 10 wetland acres, 10 riparian miles, and 10 stream miles of habitat on Service lands to achieve habitat conditions consistent with Comprehensive Conservation Plans.
- b. By September 30, 2014, 100 percent of NFHS stations will meet environmental requirements for effluent as defined by Federal, State, and Tribal law.
- c. Offer Fisheries expertise and assistance to NWR's for the completion of Comprehensive Conservation Plans to ensure the fisheries habitat issues are a component of each final plan, where feasible and appropriate.
- d. Assure that land protection proposals on Service lands are key agenda items at each *Fisheries Program Summit* described in 1.1.

## **7. Workforce Management**

**Goal: Maintain and support an adequately-sized, strategically positioned workforce with state-of-the-art training, equipment, and technologies.**

### **Challenges and Opportunities**

Need a highly competent workforce with the diverse capabilities necessary for modern conservation programs. Outreach, advocacy and targeted recruitment techniques are key to achieving a diverse and highly functional workforce. Recruitment and retention systems should be used to their fullest potential.

Need for more clearly defined career paths and advancement opportunities, especially for wage grade and lower grade staff.

Need to improve the Service's capabilities in watershed and aquatic habitat assessment, and program analysis.

Need to continuously work to improve the aging Regional Fisheries Program facilities and equipment.

**Objectives:**

**7.1 Staff Fisheries Program field stations to effectively meet the Service's goals and objectives in fish and other aquatic resource conservation, at adequate levels and in strategically aligned and structured positions.**

**7.2 Provide staff with opportunities to maintain competencies in the expanding knowledge and technologies needed to improve opportunities for professional achievement, advancement and recognition.**

**7.3 Provide staff with access to facilities and equipment needed to effectively, efficiently and safely perform their jobs.**

**Actions**

- a. Annually Update 20% of the R6 NFHS Facility Condition Indices (based on completed Condition Assessments).
- b. By September 30, 2010 implement all ARRA projects following Departmental and Service guidance.

**Actions** (the following Actions apply to all three Objectives)

(Note: underlined words and phrases are defined in the glossary at the end of this section.)

**Action A.** Pilot the design of a workforce infrastructure for a portion of Fisheries, including:

- Performing position reviews and job analyses for a functional group of positions
- Developing a strategically-aligned position structure
- Validating staffing and workload measurement models.
- Establishing training and development profiles.
- Marketing the need for and success of these efforts.

**Action B.** Once the design is completed, implement the new infrastructure identified from the initial functional grouping position review and job analysis, including:

- Instituting a change management effort directed at field managers and Regional staff.
- Evaluating the position review/job analysis and implementation process so that improvements can be made for the next functional grouping(s) to be implemented (then repeat Tactic A for that grouping).

- Associating the new position structure with performance outputs and measures and with Fisheries Operation Needs System (FONS) database and budget requests.

**Action C. Use the infrastructure implemented to conduct an ongoing permanent workforce planning process, including:**

- Identifying existing and upcoming management meetings where workforce planning can be discussed.
- Participating in training efforts.
- Participating in efforts to identify new or different functional groupings and update/associate relevant competencies with those groupings.
- Providing agenda time at project leader/similar meetings for presentations on workforce planning.
- Providing competency assessments for the Fisheries workforce.
- Conducting gap analysis for the Fisheries program.
- Helping to identify solutions to fill the gaps found.
- Providing information to the field on suggested solutions.
- Querying managers on effectiveness of existing solutions and new proposals.
- Evaluating effectiveness of new infrastructure and making indicated changes.

**Action D. Use the infrastructure to facilitate hiring well-qualified Fisheries staff by:**

- Beginning to identify questions and associate them with Fisheries workforce infrastructure based on positions and competencies.
- Hiring individuals based on prioritization of required competencies and filling previously-identified competency gaps.

## **Implementation**

This strategic plan will be implemented through annual work plans, detailing projects that link back to the strategic plan. The Fisheries Program will use adaptive management principles to continue to refine effectiveness and in deciding what fishery activities, opportunities, and issues to address. Partners will be consulted as key decisions are made that affect the direction of the Fisheries Program. We will be vigilant about issues and actions that help address emerging climate change science.

## **Evaluation and Reporting**

Adaptive management is the standard for our activities; therefore, determining the Service's success in implementing this strategic vision will be based on annually monitoring and evaluating accomplishments. This evaluation phase will provide the information required to "fine tune" regional Fisheries Program priorities, annual work plans, and budgets.

Equally important is communicating successes and failures to our partners, stakeholders, Congress, and the Administration. The Fisheries Program will report annually on its progress towards achieving strategic plan objectives through meetings with our partners and with each budget submission to Congress. A report to Congress will be written biennially.

## **Inventory and Revision**

This strategic plan will guide the Regional Fisheries Program for the next five-years, through fiscal year 2014. During FY 2014, the Fisheries Program, with input from partners and stakeholders, will inventory (1) the status of the Region's aquatic resources in order to determine the progress made in conserving the Region's fisheries over the previous five-years, and (2) the structure, role, and effectiveness of the Fisheries Program. Conclusions drawn from these inventories will serve to guide the development of the next five-year strategic plan during FY 2014.

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## **Glossary of Terms and Definitions**

### **Agreement**

Any document approved by two or more parties that identifies their roles and responsibilities in achieving mutual objectives (e.g. Memorandum of Agreement, Memorandum of Understanding (MOU), Cooperative Agreement, Grant, Contract) (FWS Native American Policy).

### **Applied Science**

Science used in actual practice or used to work out actual problems (Webster's Unabridged Dictionary, 1992).

### **Approved**

Agreed upon and sanctioned by the parties involved.

### **Aquatic Nuisance Species**

Introduced, exotic, or transplanted species, including viruses, bacteria, protozoans, and parasites, that threaten the diversity or abundance of native species or the ecological stability of infested waters, or commercial, agricultural, aquacultural or recreational activities dependent on those waters (Fisheries Program Vision for the Future).

### **Asset**

An individual item or group of similar items of real property valued at \$5,000 or more that is/are documented in the Real Property Inventory, or individual item of equipment that is documented in the Personal Property Inventory.

### **Baseline**

Any historic or collected data that is used as a control or “benchmark” to make comparisons with expected or actual conditions.

### **Candidate Species**

Any species being considered by the Secretary for listing as an endangered or a threatened species, but not yet the subject of a proposed rule (50 C.F.R. 424.02).

### **Challenges/Opportunities**

Pertaining to Regional Fisheries Program strategic plans, refers to explicit obstacles (challenges) that stand in the path of accomplishing objectives, and favorable circumstances (opportunities) for progress or advancement. “Challenges” is analogous to the planning term “problems” in Meffe et al. (2002).

### **Condition Assessment**

Periodic inspection by qualified personnel to fully determine and document the existence and condition of an asset or item of equipment and identify maintenance needs and associated repair costs, if any.

**Conservation**

Management, restoration, and protection of self-sustaining and imperiled species populations (Fisheries Program Vision for the Future).

**Cooperative Agreements**

See Grant.

**Depleted Population**

A population whose abundance or other appropriate measure is below its management goals, or, in the absence of management goals, a population considered to be below historical levels.

Does not include populations listed as candidate, threatened, or endangered under the *Endangered Species Act*.

**DOI Authority or Influence**

Owned or regulated by the Department of the Interior (DOI), or where DOI has a partnership role, or where DOI has jurisdiction because of listed species, i.e., critical habitat.

**Ecosystem**

A geographic area including all the living organisms (people, plants, animals, and microorganisms), their physical surroundings (such as soil, water, and air), and the natural cycles that sustain them (<http://ecosystems.fws.gov/>). For purposes of the Fisheries Program, ecosystems are delineated along the 53 FWS ecosystem units.

**Effluent**

Water and associated suspended and dissolved materials included within the discharge stream (point-source or otherwise) from a facility using water (e.g., aquaculture facility/NFHS cultural station).

**Endangered Species**

A species listed under the *Endangered Species Act* as being in danger of extinction throughout all or a significant portion of its range (50 C.F.R. 424.02).

**Enhancement (Population)**

Stocking fish or other aquatic species to augment existing native populations with additional individuals in order to reach self-sustaining population levels, appropriate genetic diversity, or improve a fishery. Population-specific criteria for achievement of enhancement are defined in a plan or agreement.

**Enhancement (Habitat)**

The manipulation of the physical, chemical, or biological characteristics of a habitat site (undisturbed or degraded) to heighten, intensify, or improve specific function(s) or to change the growth stage or composition of the vegetation present. Enhancement is undertaken for a purpose such as water quality improvement, flood water retention or wildlife habitat. Enhancement results in a change in habitat function(s), but does not result in a gain in habitat size (e.g., length, area, or volume). This term includes activities commonly associated with the terms, improvement, enhancement, management, manipulation, or directed alteration. Site-specific criteria for achievement of enhancement are defined in a plan or agreement.

## **Equipment**

Moveable items used in day-to-day activities for the purpose of fulfilling the Service's mission. These items have an acquisition cost of \$5,000 or more or are sensitive property items that include automobiles, trucks, heavy machinery, boats, all-terrain vehicles, weapons, and shop/laboratory/office appliances including laptop computers. These items are cataloged in the Personal Property Inventory database.

## **EPA Approved Water Quality Standards**

The Water Quality Standards Regulation (40 CFR 131) describes State requirements and procedures for developing, reviewing, revising, and adopting water quality standards (WAS), and EPA requirements and procedure for reviewing, approving, disapproving, and promulgating water quality standards as authorized by section 303 (c) of the *Clean Water Act*.

## **Facility**

An individual item or group of *related* items of real property valued at \$5,000 or more and documented in the Real Property Inventory, and is not used to refer to a field station, which is an aggregate of “facilities”.

## **Facility Condition Index (FCI)**

The FCI is the ratio of accumulated deferred maintenance to the current replacement value of a property item. A ratio of less than 5% indicates a “good” condition, a ratio from 5 % to 10% indicates “fair” condition, and a ratio greater than 10% indicates “poor” condition. FCI is an indicator of the depleted value of a bureau’s constructed assets. In other words, the FCI illustrates the percentage of its assets value that a bureau would have to spend to eliminate the deferred maintenance backlog.

## **Fish Access**

Unobstructed pathway allowing movement in and out of habitats previously unavailable or limited due to a barrier, for use in completing life history requirements.

## **Fish Screen**

A manufactured structure or device placed within a stream, diversion or other water movement facility for the purpose of decreasing fish mortality by decreasing entrainment of juvenile and adult fish into a water supply system.

## **Fish Passage Barrier**

A manmade device or influence that prevents or inhibits fish or other aquatic species from reaching historic habitats. Barrier includes, but is not restricted to, dams, culverts, inefficient fishways, water diversions, ineffective screens, and inadequate flows (Service Manual, 710 FW 1).

## **Fishery Management Plan**

A planning document for the conservation of one or more fisheries. See also ‘Management Plan.’

**Friends Group**

A formal association of individuals and groups committed to assisting the Fisheries Program to attain the goals, objectives and tactics included in this plan.

**FWMA (Fish and Wildlife Management Assistance)**

A programmatic organizational branch in the Washington Office that administers funds from 1331 (Anadromous Fish Management) and most of 1332 (Fish and Wildlife Assistance) of the Fish and Wildlife Service annual budget. These funds support activities at 64 fish and wildlife management assistance offices (also sometimes known as Fishery Resources Offices, Fish and Wildlife Resource Offices, etc.) throughout the nation. Most of these activities are part of the Fisheries program, though FWMA also includes wildlife management assistance on tribal lands.

**Goal**

A general description of what the group seeks to accomplish and for whom (Meffe et al. 2002).

**GPRA**

The Government Performance and Results Act of 1993, which requires Federal agencies to establish standards measuring their performance and effectiveness; and to develop strategic plans describing overall goals and objectives, annual performance plans with quantifiable measures of their progress, and reports describing their success in meeting standards and measures.

**Grants**

An award of financial assistance, including cooperative agreements, in the form of money, or property in lieu of money, by the Federal Government to an eligible grantee. The term does not include technical assistance which provides services instead of money, or other assistance in the form of revenue sharing, loans, loan guarantees, interest subsidies, insurance, or direct appropriations. Also, the term does not include assistance, such as a fellowship or other lump sum award, which the grantee is not required to account for. Grantee means the government (or other recipient) to which a grant is awarded and which is accountable for the use of the funds provided. The grantee is the entire legal entity even if only a particular component of the entity is designated in the grant award document (*adapted from 43CFR12.43 revised October 2002*). A grant or cooperative agreement shall be used only when the principal purpose of a transaction is to accomplish a public purpose of support or stimulation authorized by Federal statute. The statutory criterion for choosing between grants and cooperative agreements is that for the latter (cooperative agreements), "substantial involvement is expected between the executive agency and the State, local government, or other recipient when carrying out the activity contemplated in the agreement." (43CFR12.911 revised October 2002).

**Habitat Assessment**

Any one of many standard surveys to evaluate the chemical, physical, and/or biological characteristics of a specified area of land and/or water as habitat for a population, species, or community. Examples include baseline inventories, evaluations of management actions, and monitoring of changes over time.

**Hatchery Propagation**

Includes natural or artificial matings, fertilization of sex cells, transfer of embryos, development of offspring, and grow out of individuals of a species in a controlled environment.

### **Historic Properties/Sites and Collections**

Historic properties/sites are those that are listed on the National Historic Registry. Historic collections pertain to historic artifacts or documents that should be preserved through appropriate protocol.

### **Imperiled Species**

Any species listed as threatened or endangered under the authority of the *Endangered Species Act*, considered a candidate for listing, or its population is in a steep decline (Fisheries Program Vision for the Future).

### **Indirect Infrastructure**

NFHS Real Property Inventory assets, other than mission critical assets, that support carrying out the mission of the field station (e.g., office buildings, storage buildings, residences, roads, fences, kiosks, signs, above-ground fuel tanks).

### **Information Transfers Supported**

Activities conducted to provide technical information, expertise and programmatic information to partners and stakeholders to facilitate the prevention, early detection, rapid response, control and management, and education and outreach of aquatic invasive species. Includes technical assistance to other Service programs, Refuges, other Federal agencies and their lands, States, local governments, Tribes, private landowners, industries, non-governmental institutions, academic institutions and international partners. It does not include specific public awareness campaigns and State ANS management plans, or formal partnership opportunities such as the Regional Panels of the ANSTF.

### **In-stream**

The area within the confined width and depth of a flowing watercourse at or below bank-full stage.

### **Intergovernmental Personnel Act**

Permits the temporary assignment of personnel between Federal agencies, State and local governments, federally recognized Tribes, and other eligible organizations, in order to facilitate Federal-State-local government cooperation or to develop programs of mutual concern through the short-term, temporary assignment of skilled personnel (5 U.S.C. 3371-3376).

### **Interjurisdictional Fisheries**

Freshwater, coastal, or marine fish populations managed by two or more States, nations, or tribal governments because of their geographic distribution or migratory patterns (Fisheries Program Vision for the Future).

**Introduction**

The intentional or unintentional escape, release, dissemination, or placement of a species into an ecosystem as a result of human activity (Executive Order 13112).

**Invasive**

Any non-native species whose introduction does or is likely to cause economic or environmental harm or harm to human health (Fisheries Program Vision for the Future).

**Landscape Conservation Cooperative (LCC)**

A partnership formed around common, desired resource outcomes. An LCC can be thought of as a conservation science alliance in which the Service works with its partners to conserve populations of priority, target species and their habitats at landscape levels. LCC partnerships will also help us respond to one of the biggest stressors we anticipate impacting our trust resources: climate change.

**Leverage**

To increase means of accomplishing a purpose by providing additional resources. Can include, but is not limited to, providing funds, equipment, or personnel from an outside source.

**Listed Species**

Any species of fish, wildlife, or plant which has been determined to be endangered or threatened under section 4 of the *Endangered Species Act* (50 C.F.R. 402.02).

**Management Plan**

A broadly-used term to describe a planning document for the manipulation of natural resources in order to achieve societal goals. Can be specific to a species, population, community, watershed, ecosystem, or other location, or for activities including recovery, restoration, control, or use. Generally describes the historic and current resource characteristics or functions and outlines goals and objectives to establish or maintain those characteristics or functions at a desired condition. It further describes specific actions and timetables by the participants to achieve those goals and a format to report progress towards this accomplishment.

**Mitigation**

Activities contributing to preserving aquatic resources and offsetting aquatic and habitat resource loss due to water projects developed by the Federal government. Mitigation includes propagation of native species to preserve them from potential extinction as well as propagation of non-native species to fill vacant niches in severely altered habitat (e.g., reservoirs and tail waters) where native species can no longer survive or reestablish self-sustaining populations.

**National Fish Habitat Action Plan (NFHAP)**

The NFHAP, which was signed into effect by the Director and other partners on April 24, 2006, was forged by a coalition of anglers, conservation groups, scientists, state and federal agencies and industry leaders. The goal of the NFHAP is the development of partnerships that will protect, restore and enhance priority aquatic habitats at landscape levels across the

country.

### **Native Species**

Any species within historic range, the area occupied at the time of European colonization of North America (Fisheries Program Vision for the Future).

### **New Animal Drug Application (NADAs)**

The formal application and accompanying technical data sections submitted to the Food and Drug Administration (FDA) to demonstrate that a drug (not yet approved) is safe and effective for use on animal(s) and disease(s) indicated on the label. To be approved by FDA, the technical sections must demonstrate that the drug is safe to the animal(s) indicated on the label, safe to humans who may eat the animal(s) treated with the drug (in the case of food animals), safe to the environment as a result of its being manufactured and used, and that the drug is effective in treating or preventing the conditions indicated on the label.

### **NFHS Stations**

National Fish Hatchery System stations. Includes fish hatcheries, fish technology centers, fish health centers and historic fish hatcheries that are managed by the U.S. Fish and Wildlife Service.

### **Objective**

A specific statement of what the group intends to accomplish, stated in ways that can be measured and monitored. Several objectives may be written to address each goal (Meffe et al. 2002).

### **Outreach and Education Events**

A time-specific gathering of Fisheries Program staff and an audience of selected individuals, organizations, or the general public for the purpose of providing the audience with information on aquatic resource conservation, recreational fishing, and/or the functions of the U.S. Fish and Wildlife Service.

### **Partner**

Any individual, organization, or agency working with the another to meet common objectives by contributing capital towards shared activities. "Capital" includes funds, people, equipment, land/property access, and authority.

### **Population**

A discrete group of individuals of a single species or lesser taxon that is defined by its reproductive isolation and/or geographical distribution (e.g., management unit). Captive fish and their progeny held in captivity do not constitute a discrete population.

### **Population Assessment**

A broad category of biological surveys conducted to determine population characteristics of a species. Examples include baseline inventories, evaluations of management actions, and monitoring of changes over time of population parameters (e.g., abundance, distribution, genetics, sex ratios, recruitment, and growth rate).

### **Project**

A particular activity (e.g., a population assessment) or interrelated group of activities to implement a tactic and contribute towards meeting a planned objective. Interrelated activities are those components essential to completing a project from start to finish (including measuring and reporting the results of the work to stakeholders). A planned objective is one found in the strategic plan (*adapted from* Meffe et al. 2002). See Meffe et al. (2002) for more information and examples of writing a project. In Fisheries Information System, each record in the Fishery Operation Needs System Database and Accomplishments modules should be written as a project, where results are measured and recorded on the Activities page.

### **Recovery**

Improvement in the status of listed species to the point at which listing is no longer appropriate under the criteria set out in section 4(a)(1) of the *Endangered Species Act* (50 C.F.R. 402.02).

### **Recovery Plan**

A planning document pursuant to the *Endangered Species Act* for the conservation and survival of Federally listed species (16 U.S.C. 1533(f)).

### **Recovery Plan Task**

A specific recovery action, as outlined within the recovery strategy of a Recovery Plan to meet recovery goals and objectives. Recovery Plan Tasks are listed in the Implementation Schedule of Recovery Plans. This term is used in the 1990 ES Recovery Plan Guidance, however, a revised draft version of this document replaces the term “task” with “action” (change expected to be in place by 2004).

### **Recovery Plan Production Task**

Any recovery plan task that specifies hatchery production activities as part of the recovery strategy for that species.

### **Recreational**

An activity which provides or enhances public opportunities such as fishing, hunting, and wildlife watching.

### **Refugia**

Isolated areas or facilities in which imperiled wild or captive produced organisms can be held in protection, preferably for short periods of time but possibly long-term.

### **Research**

An activity that directly or indirectly supports gathering, analyzing, and disseminating scientific information.

### **Restoration (Habitat)**

The manipulation of the physical, chemical, or biological characteristics of a site with the goal of returning natural/historic functions to a former or degraded habitat. Site-specific criteria for achievement of restoration are defined in a plan or agreement. Habitat restoration is divided into re-establishment and rehabilitation.

### **Restoration (Population)**

The process of returning the quantity and/or quality of one or more depleted or extirpated populations to some previous condition, often a baseline established to meet goals and objectives in a plan or agreement.

**Riparian**

A landscape position - lands contiguous to perennial or intermittent streams, channels and rivers. Riparian areas may include upland, wetland, and riparian plant communities (The Service FY 2003 Annual Performance Plan).

**Riverine**

Areas within the active channel of a river or stream.

**Self-sustaining**

Capable of maintaining itself independently (Webster's New World Dictionary, Third College Edition, s.v. "self-sustaining"; Fisheries Program Vision for the Future).

**Species of Management Concern**

Any species subject to management by the Department due to statutory or programmatic responsibility.

**Sport Fish**

Any species targeted by anglers for recreation.

**Stabilized**

Species in the wild whose numbers have remained relatively constant and whose threats are relatively constant. Stable does not mean secure.

**Stakeholder**

Any agency, group, or individual that can place a claim on the agency's attention, resources or outputs, or who sees themselves as affected by agency actions or who can affect the agency's future (Organization of Wildlife Planners; Developing Comprehensive Management Systems for Wildlife Agencies Seminar; October 23-27, 1995; Stowe, Vermont).

**Strategic Habitat Conservation (SHC)**

The Service has adopted SHC as the new business model for achieving resource conservation. It consists of elements that occur in an adaptive management loop: biological planning, conservation design, conservation delivery, and monitoring and research. Six principles guide SHC: 1) the conservation of populations and ecological functions that sustain them; 2) define measurable population objectives; 3) use the best scientific information available and manage uncertainty through an iterative cycle of planning, doing and evaluating; 4) management actions, decisions and recommendations must be defensible and transparent; 5) conservation strategies must apply the concepts of adaptive management; and 6) partnerships are essential for management and for developing conservation strategies.

**Subsistence**

The practice of taking fish, wildlife or other wild resources for one's sustenance - for food, shelter or other personal or family needs.

**Sustainable**

A population whose abundance or other appropriate measure is at or above its management goals, or, in the absence of management goals, a population indicated to be healthy by the best available scientific or anecdotal evidence.

**Tactic**

An operational approach chosen to overcome a stated problem, also sometimes referred to as "strategy" (Crowe 1987; Meffe et al. 2002).

**Task**

An assigned piece of work often to be finished within a certain time (*adapted from* Merriam-Webster's Collegiate Dictionary. [www.m-w.com](http://www.m-w.com)).

**Technical Assistance**

Expertise, information, or other help provided by the Service upon request by a partner or stakeholder to facilitate the development, enhancement, and management of fish and wildlife resources (e.g. direct on-site support, information transfer, and baseline inventories) (*adapted from* the Service FY 2003 Annual Performance Plan and the Service Native American Policy). Record all activities (including communications) related to one issue or project as one request for technical assistance fulfilled. Technical assistance is not consultation. In the most general terms, consultation is initiated by the Service and technical assistance is initiated by a partner or stakeholder.

**Techniques and Culture Technology Tools**

Tasks and activities associated with new (i.e. never before developed) techniques and advances in applied fisheries science and fish culture.

**Threatened Species**

Any species listed under the *Endangered Species Act* that is likely to become endangered within the foreseeable future throughout all or a significant portion of its range (50 U.S.C. 1531 *et seq.*).

**Tribal Consultation**

A request by the Service for information or feedback from Native American governments regarding the management of fish and wildlife resources for which trust responsibilities and other fiduciary obligations are attached to the United States. Occurs when the Service initiates discussions with tribal officials regarding a pending federal action (e.g. designation of critical habitat, rule making, or listing species). Consultation could be legally mandated or could be a voluntary effort by the Service to gain tribal perspective to an issue or action. All consultations must comply with current Federal Native American policies, including Secretarial Order Nos. 3206, 3175, and Executive Order 13175. Record all communications related to one issue or action as one consultation. Consultation is not technical assistance. In the most general terms, consultation is initiated by the Service and technical assistance is initiated by a partner or stakeholder.

**Tribal Trust Responsibility**

The fiduciary obligations that attach to the U.S. as trustee of the assets and resources that the U.S. holds in trust for Native American governments and their members, the treaty and

statutory obligations of the U.S. toward Native American governments and their members, and other legal obligations that attach to the U.S. by virtue of the special relationship between the Federal Government and Native American governments. The identification and quantification of trust assets is recognized as an ongoing and evolving process (The Service Native American Policy 1994).

**Tribe**

Federally recognized Tribes as regarded by Federal law and formally identified by DOI.

**Upland**

Land or an area of land lying above the level where water flows or where flooding occurs (The Serviced FY 2003 Annual Performance Plan).

**Watershed**

A standard eight digit USGS cataloging unit representing part or all of a surface drainage basin, a combination of drainage basins, or a distinct hydrologic feature. The USGS divides the United States into 2150 cataloging units, which are the fourth level of classification in the USGS Hydrologic Unit system. For more information, see <http://water.usgs.gov/GIS/huc.html>. Synonym: DOI Watershed Unit.

**Watershed Plan**

A planning document for the restoration and/or management of any of the USGS cataloging units or other appropriate scale. Generally describes the historic and current characteristics of the watershed and outlines goals, objectives, and partner roles to maintain or re-establish its function to a state of being at, or somewhere between, its historic state and current functional state.

**Wetland**

Lands transitional between terrestrial and aquatic systems where the water table is usually at or near the surface or the land is covered by shallow water. For purposes of this classification, wetlands must have one or more of the following three attributes: (1) at least periodically the land supports predominantly hydrophytes; (2) the substrate is predominantly undrained hydric soils; and (3) the substrate is nonsoil and is saturated with water or covered by shallow water at some time during the growing season of each year (Cowardin et al. 1979). By definition wetlands include areas meeting specific criteria included in the 1987 Corps of Engineers Wetlands Delineation Manual, as well as in the USDA-NRCS's National Food Security Act Manual (FWS FY 2003 Annual Performance Plan, <http://planning.fws.gov/Appendix.html#II>).

**Wild Fish Health Survey**

A formalized national partnership of Service, State and Tribal resource agencies to document the national distribution of fish pathogens, including viruses, in free-ranging fish. Its use allows for management decisions based on greater levels of science-based information and is publicly available on the web.

## **Literature Cited**

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