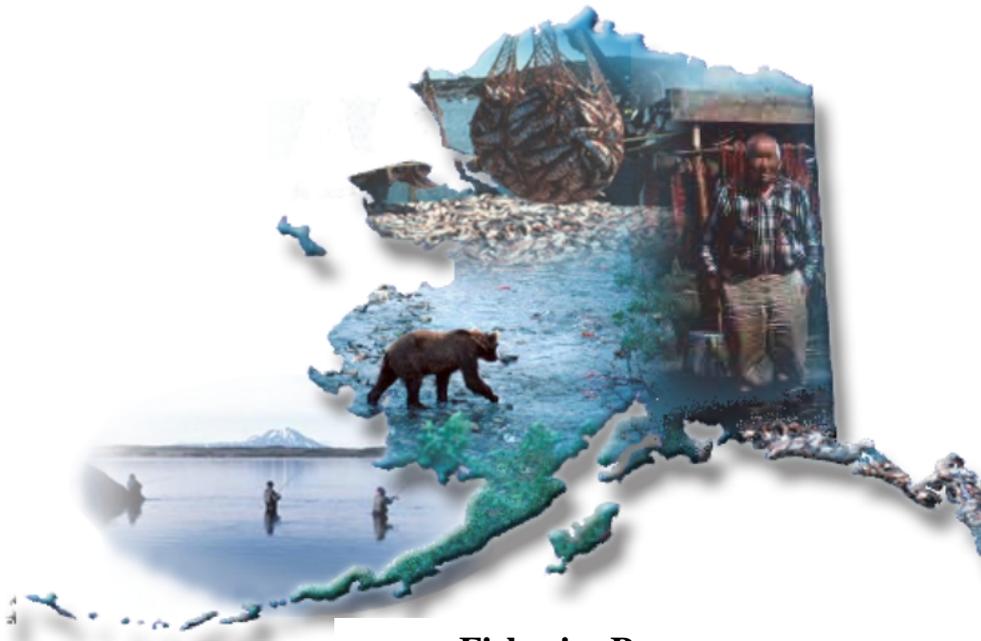


Conserving America's Fisheries

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



**Fisheries Program
Alaska Region Strategic Plan
2009 - 2013**

A Message from the Regional Director

Fish are a vital resource to Alaska – they feed our citizens, fuel our economy, make possible the quality of life that we enjoy, and ensure the continuation of our diverse cultures and conserve biological diversity. As one of a group of many partners interested in or charged with maintaining and improving the quality of this important resource, the U.S. Fish and Wildlife Service's Alaska Region Fisheries Program recognizes both the scope of these challenges and that success in maintaining our fishery resources at a healthy level takes dedication and commitment. Most importantly, we recognize that the course ahead is not one in which we can successfully travel alone. Sustaining what we have requires working collaboratively with our partners to prioritize and fill critical information gaps, making careful and informed management decisions, restoring habitats now before population losses are significant, and involving the public as an active partner in conserving Alaska's fishery resources.

Alaska is unique in many ways, primarily in that our fisheries have yet to suffer from many of the problems that have devastated wild fish populations elsewhere. Because of this, we have the opportunity to conserve and maintain sustainable fisheries, and to do so while continuing to develop a diverse and healthy economy. Despite these advantages, the task of conserving fish populations and their habitats is immense and success is not an easy task. We face many challenges ahead, perhaps none greater than from our changing climate. Developing and initiating effective responses to the challenges will require clear and frequent communication with stakeholders, as well as cooperation and consultation with a host of partners.

It is in recognition of the aquatic resources with which we are blessed and the efforts needed to conserve them, the U.S. Fish and Wildlife Service's Alaska Fisheries Program has produced this plan, the second 5-year commitment to conserving Alaska's fishery resources. The 2009-2013 Alaska Fisheries Strategic Plan updates the 2004-2008 Plan and is a blueprint for action and a renewed pledge to our partners and stakeholders on our continued commitment to address aquatic conservation issues where they matter most. It will enable us to work in partnership with other Service programs (Refuges and Subsistence), Alaska Department of Fish and Game, Alaska Tribes and Native organizations, non-governmental organizations, and other Federal agencies to meet Alaska's challenges for many years to come.

Geoffrey L. Haskett

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Executive Summary

In December 2002, the U.S. Fish and Wildlife Service completed its *National Fisheries Program Strategic Vision for the Future*. That landmark document was developed in collaboration with partners from across the country, including the Alaska Department of Fish and Game (ADF&G), to better define the Service's role in conserving and managing the Nation's aquatic resources. The Vision, because it is national in scope, outlines a number of broad goals and objectives that will focus the efforts of the National Program over two consecutive 5-year periods. Because the aquatic resources and the issues that threaten their status differ among the Service's Regions, the priority of these goals and objectives likewise varies from one part of the nation to another. Alaska shares in many of the same aquatic habitat threats common among the Service's Regions and is arguably America's climate change *ground zero*— with landscape level effects that are both immediate and visible.

The direction outlined in this plan is based largely upon the strategic direction and the lessons we learned in implementing the 2004-2008 regional plan. We believe that many of the conservation and partnership commitments outlined in the previous plan should continue in the coming 5 years, but with modifications based on the lessons we learned along the way, input from our partners, as well as incorporating new challenges and opportunities we see on the horizon. We were not successful in completing every task we identified 5 years ago, but we made substantial progress and achievements for the vast majority of those obligations. Additionally, we worked aggressively at developing 5-year work activity plans for each of our field offices that identifies and prioritizes work activities and fish monitoring projects where aquatic resource threats are most imminent. Our Alaska Fisheries Program has expanded into forming new and stronger external partnerships and has strengthened its role in enhancing internal coordination to support our Fish Passage and Habitat Restoration Programs. Expanded Alaska partnerships under the National Fish Habitat Action Plan (NFHAP) are opening new doors to work with diverse groups interested in conserving and restoring fish habitats where they matter most. As a result of these efforts, we are now better positioned to line out our course of action and formalize new commitments for fisheries and aquatic resource conservation.

Our greatest challenge in the coming years is the complex and uncertain impacts anticipated from climate change. Major climatic changes have occurred in recent decades with visible and measurable consequences in Alaska. This overarching conservation issue pays no heed to political or administrative boundaries and will demand a strategic, proactive, creative and collaborative approach. Our approach to addressing climate change will emphasize strategies that support understanding of physical processes occurring across landscapes in Alaska, determine species and landscapes most impacted and develop broad-scale management priorities, implement adaptive management strategies, and reduce our own carbon foot print in our daily work activities. Ultimately, our success at ensuring diverse and abundant fish populations and ecologically functioning landscapes will depend on how quickly we can build needed advancements in our technical capabilities, how well we integrate our efforts with those of our partners and across programs, and how strategic we are with limited resources.

Introduction

The Fisheries Program of the U.S. Fish and Wildlife Service (Service) has played a vital role in conserving and managing¹ 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 programmatic scale.

This Regional Strategic Plan is an extension of the Vision, describing more specifically the tactics to be implemented by the Alaska Region during the next five years to fulfill the goals and objectives identified in the Vision. This effort represents the second half of the ten-year cycle for which the Vision was intended. 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

The vision of the Service and its Fisheries Program is 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:

- Protect the health of aquatic habitats.
- Restore fish and other aquatic resources.
- Provide opportunities to enjoy the many benefits of healthy aquatic resources.

¹ States have primary authority for managing fish within their respective geopolitical boundaries; the Alaska Department of Fish and Game (ADF&G) is the agency with primary responsibility to manage fish in the Alaska Region. The terms "manage" and "management" in the context of this plan are used as broad general terms to encompass Service activities, such as planning, monitoring status and trends of populations, and restoring habitats, that contribute to ADF&G efforts to sustain and restore fish populations; to meet Service responsibilities to conserve fish on National Wildlife Refuges under the Alaska National Interest Lands Conservation Act (ANILCA) and the Refuge Improvement Act; and Service responsibilities authorized under other Federal laws. The Service and the ADF&G operate under a longstanding Memorandum of Understanding (MOU) that recognizes responsibilities afforded to each other under the State and Federal Constitutions, laws, and regulations. More importantly, this MOU recognizes a shared mutual concern for fish and wildlife and their habitats, a desire to develop and maintain a cooperative working relationship to benefit fish, wildlife, and their habitats to benefit the public.

Importance of Fish to Alaska

Alaska's fishery resources are fundamental to the economic, social, and ecological vitality of the State. Fish produced in rivers, lakes, and marine waters of Alaska support thriving recreational and commercial fisheries worth hundreds of millions of dollars annually. They are also the mainstay of a subsistence culture that has existed for thousands of years. Of particular importance to Alaskans are Pacific salmon, which directly provide for subsistence, recreational, and commercial uses, while also playing an important ecological role by transporting marine-derived nutrients into Alaska's freshwater ecosystems. These nutrients contribute to the productivity of Alaska's rivers, lakes, wetlands, and forests. Humans, mammals, birds, juvenile salmon, resident fishes, and aquatic insects all rely on healthy fish populations as part of a diverse ecosystem. Historically, communities in other areas of the United States have also had a high reliance on fish; however, overfishing, habitat loss, pollution, and the introduction of nonnative species have devastated wild fish populations and diminished that link between fish and society. Alaska's aquatic resources are subject to these same threats and are especially vulnerable to climate change, but there is still the opportunity to respond to them and avoid this broken link. The purpose of this plan is to define how the Alaska Region Fisheries Program will work with Service Refuges, the Alaska Department of Fish and Game (ADF&G), and other partners to take advantage of the opportunity while it still exists.

Alaska Region Fisheries Program

Federal management of Alaskan fisheries began with the purchase of the Alaskan Territory in 1867 and continued until Statehood in 1959. During these early years, salmon hatcheries were built and laws were passed to strengthen and protect over-fished fisheries from destructive harvest methods. With Statehood, fisheries management was transferred from the Service to the State of Alaska. Statehood resulted in a reduced Service presence in Alaska; the Alaska Region Fisheries Program staffed only one field office in Juneau from 1959 until 1970.

As the Service's fisheries responsibilities² in Alaska have grown, primarily due to the Alaska National Interest Lands Conservation Act (ANILCA) and court decisions on Federal subsistence jurisdiction and responsibilities, the Alaska Region's Fisheries Program has expanded. Fisheries Program staff are located at four Fish and Wildlife Field Offices (FWFO), the Conservation Genetics Laboratory (CGL), and the Regional Office. Our staffs specialize in fish ecology, fish biology, statistics, genetics, anthropology, and administration. We monitor long-term trends of fish populations, co-manage subsistence fisheries, monitor for aquatic invasive species, restore degraded habitats, remove barriers to fish passage, and conduct environmental education in rural

²Public laws including the ANILCA, Refuge Improvement Act, Fish and Wildlife Coordination Act, Federal Power Act, National Environmental Policy Act, Nonindigenous Aquatic Nuisance Prevention and Control Act, Sikes Act, and the Yukon River Salmon Act provide specific and sometimes very broad authorities for the Service to work with, and provide technical and financial assistance to State and Federal agencies to conserve fish populations and their habitats.

and urban schools. We provide technical and financial assistance to, and work cooperatively with Refuges, other government agencies, Alaska Tribes and Native organizations, schools and universities, and other interested groups. This coordinated effort provides fish for subsistence, recreational, and commercial uses.

Strategic Habitat Conservation - Our Fisheries Program works cross- programmatically within the Service, as well as with our external partners in a variety of watershed-level strategic planning efforts follow the Strategic Habitat Conservation (SHC) approach developed by the Service and USGS. The SHC framework is founded on an adaptive, iterative approach to biological planning, conservation design, conservation delivery, monitoring, and research. A fundamental principle of SHC is the need to set measurable objectives for how ecological systems will function. Setting and linking fish population level objectives with habitat availability and use within large-scale ecosystem and conservation units provide the necessary building blocks to carry us forward into 21st century resource conservation. However, to fully implement all elements of SHC will require our Fisheries Program to work closely with other Service programs to integrate performance goals, enhance skill sets, and recruit new staff with expertise such as GIS and habitat modeling capabilities. Examples of fisheries strategic conservation planning in Alaska include:

- The *U.S. and Canada Yukon River Joint Technical Committee Plan* defines spawning population objectives, habitat assessment and suitability models, as well as uncertainty analysis for salmon stocks within the 1,700 mile Yukon River watershed.
- The *Strategic Action Plan of the Mat-Su Basin Salmon Habitat Partnership* identifies important habitat for salmon and other fish species and prioritizes fish habitat conservation actions, including protection, enhancement, and restoration of key habitat.
- The Alaska Region *National Wildlife Refuge Biological Review* process provides an opportunity to establish management goals, landscape data needs, and set biological monitoring priorities for fishery trust resources on each of Alaska's 16 National Wildlife Refuges.



Locations of Alaska – Alaska Region Fisheries and Ecological Service offices.

Fisheries Program Plan

The Alaska Region’s Strategic Plan for the Fisheries Program 2009-2013 “steps down” the focus areas and goals in the National Fisheries Program’s *Strategic Vision for the Future*³. The overarching goal of the Alaska Region’s Fisheries Program is to maintain diverse, self-sustaining native fish populations to provide for subsistence, recreational, personal use, and commercial uses, and for maintaining healthy ecosystems. To do this, we emphasize partnerships, setting priorities to fill information gaps, protecting and restoring habitats, preventing the introduction of aquatic invasive species, educating and seeking input from the public, using sound science, and maintaining a strategically positioned workforce. This plan will be implemented by Alaska Region Fisheries Program staff through projects that link back to the goals, objectives, and tactics that follow. The plan sets ambitious performance targets (see Appendix) that will be accomplished by seeking efficiencies in operations, leveraging funds and assistance from partners, and securing additional funds in the Federal budget.

³ Excluded from our Plan is the Mitigation Fisheries goal. The Mitigation Fisheries goal refers to mitigation of impacts on fisheries from Federal locks and dams. The Alaska Region’s fishery resources are fortunate in that there are no Federal locks and dams in Alaska for which mitigation is required; therefore, this goal does not apply.

Focus Area:
Partnerships and Accountability

Partnerships

To achieve the goals of the Vision, the Service needs to work closely with its partners. Our Field Offices provide key support to Alaska's National Fish Habitat Partnerships (FHPs) – the primary work units of the National Fish Habitat Action Plan. Alaska FHPs include the Matanuska-Susitna Basin Salmon Habitat Partnership; the Southwest Alaska Salmon Habitat Partnership; and two candidate FHPs – the Kenai Peninsula Fish Habitat Partnership, and Salmon in the City (Anchorage). The Service works with the Alaska FHPs and their local, state, and regional stakeholders to implement all relevant NFHAP strategies in key areas of the Region.

Matanuska-Susitna Basin Salmon Habitat Partnership - In 2005 the Service helped establish the Matanuska-Susitna Basin Salmon Habitat Partnership. The Partnership brings together a diverse group of federal, state, local, and tribal governments, non-governmental organizations, local industry and businesses, and private landowners to restore and conserve important fish habitat in the Mat-Su Basin. Through the Partnership the Service is actively implementing the National Fish Habitat Action Plan in Alaska, identifying important habitats for salmon and other fish species in the Mat-Su Basin; prioritizing fish habitat conservation actions, including protection, enhancement and restoration of key habitat, education and outreach, research, and mitigation; and identifying potential collaborations and funding sources for partners to address fish habitat conservation.

We face an increasingly complex biological and social setting that demands collective approaches to complex issues. Climate change challenges will require us to work quickly at increasing our understanding of physical processes occurring across landscapes, determine species and landscapes most impacted, implement adaptive management strategies, and integrate our efforts with those of our partners and across Service programs. Invasive species do not abide legal boundaries, and require solid partnerships across jurisdictions to limit their damages. Declining or level funding, coupled with steadily increasing operating costs, further challenges our ability and that of our partners to adequately and responsively address common aquatic resource issues. A major focus of this plan is to continue building communication and coordination between the Service and its partners to meet our common challenges effectively.

Goal 1.1 – Open, interactive communication between the Fisheries Program and its partners.

Objective 1.1 – Develop and improve long-term partnerships with States, Tribes, other federal agencies, non-governmental organizations (NGOs), Refuges and other Service Programs to develop collaborative conservation strategies for aquatic resources; implementing 100% of the tactics identified below by their target dates.

Tactic 1.1.1 – Hold regular coordination meetings with internal and external partners to identify information and research needs, emerging issues, and priorities for collaboration; to share information and results; to provide and receive feedback; and to seek additional funding to achieve common goals.

- a. Regional office leadership will meet at least twice annually with ADF&G leadership to address policy level issues and discuss resource issues of mutual interest.
- b. Collaborate with agencies and other researchers via climate change forums such as the Alaska Executive Climate Change Roundtable, North Slope Science Initiative, Forum on Eco-regional Monitoring on National Wildlife Refuges, and WILDREACH to further enhance our understanding and develop effective and adaptive strategies to address threats to Alaska’s aquatic resources. Multi-agency collaborations will help us in assessing where adverse impacts to fish populations are most likely, and strategically implement monitoring and assessment studies to begin documenting changes in aquatic habitat, seasonal timing, and population characteristics.
- c. Convene annual joint meetings with Refuges, U.S. Geological Survey – Alaska Science Center (USGS), Alaska Cooperative Fish and Wildlife Research Unit, ADF&G, and Fisheries Program field offices to identify information and research needs and review ongoing projects and research on issues not addressed within Tactic 1.1.1b.
- d. Using the Southwest Alaska Interagency Meeting and the Mat-Su Partnership Salmon Workshop as models, each field office will sponsor an annual partnership coordination meeting. These meetings will provide an opportunity to identify common issues, goals, and information needs, discuss planned and ongoing projects, formulate ways to strategically leverage funds, and to jointly seek project funding from outside sources.

- e. The Conservation Genetics Laboratory will host annual planning and coordination meetings with other genetic laboratories: ADF&G, USGS, NOAA Fisheries, DFO, and University of Alaska – Fairbanks.

Tactic 1.1.2 – Post updated information about Fisheries Program activities and accomplishments on the Alaska Region Fisheries website homepage to foster better communications between the Fisheries programs, its internal and external partners, and the public.

- a. By December 30, 2009 the Alaska Region Fisheries webpage will contain updated information that captures the main focus and functions of our program. The Fisheries Program Coordinator will work with field office representatives and regional office leadership to identify key information about our Program and post it on our website.
- b. Each field office will annually review its website and provided updated information on its fisheries monitoring activities, fish passage and habitat restoration activities, NFHAP, and other partnership related developments.

Tactic 1.1.3 – Participate in meetings held by partners to broaden the Program’s perspective and appreciation of the range of issues collectively faced by resource managers.

- a. Participate in the Alaska Board of Fisheries meetings.
- b. Participate in climate change workshops and attend lectures that will further our Program’s abilities to address this issue as outlined in Tactic 1.1.1 b.
- c. Participate in NFHAP technical committees and workshops within the established and developing Alaska Partnerships.
- d. Participate in the Alaska Invasive Species Working Group and Alaska Committee for Noxious and Invasive Plants Management.
- e. Participate in the Interagency Monitoring and Evaluation Group for the Tongass National Forest.
- f. Participate with Refuges in the Comprehensive Conservation Plan and Biological Review processes. Collaborate on strategies for implementation of priority objectives.
- g. Participate in the Yukon River Drainage Fishermen’s Association annual meetings.

- h. Participate in the annual national meeting of the American Fisheries Society (AFS); a minimum of one Regional representative will be sent to these meetings annually, preferably field office staff presenting a session paper. Support AFS Alaska Chapter, Western Division, and student unit meetings through attendance and volunteering for organization committee positions.

Accountability

We view this strategic plan as a contract between the Service and those partners that contributed to its development. Accountability to this agreement is critical to maintaining strong working relationships with our partners and to achieving the goals set forward in this plan. To be accountable we must communicate plan goals and achievements to our partners and seek their evaluation of our implementation of the plan.

Alaska Region Fisheries Publication Policy and Report Series - Our Alaska Fisheries Publication Policy requires all Fisheries monitoring and assessment studies be published within our Alaska Fisheries Publication Series (AFPS) or in scientific journals. Since this policy was established in 1985, our Program has produced over 350 peer reviewed publications in the AFPS and 105 professional journal publications.

Alaska Region Fisheries employees played a key role in the development of the Service's new scientific journals that will begin in 2009. The Alaska Region AFPS was used as a model in the development of these journals. We have a full time biometrician who reviews study plans to ensure that studies are statistically rigorous and scientifically sound before data are collected. These measures provide transparency of our program activities, deliver timely and scientifically-sound results for fisheries management, and demonstrate accountability for every dollar used for fishery assessment and monitoring studies. All AFPS reports (Data Series and Technical Reports) are available on our regional website at:

Equally important is communicating our achievements to the Department of the Interior and the Office of Management and Budget. The challenge here is in devising performance measures to quantify performance. Performance measures may provide a false sense of achievement or not adequately capture our successes unless carefully selected. Likewise, it is critically important that targets identified in this plan are both achievable and ambitious. We need to track progress against timeline milestones, increase our ability to anticipate problems earlier, and communicate any deviations from the plan to maintain credibility.

Goal 1.2 – 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.

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

- a. Fulfill 100% of the annual performance reporting requirements for measuring the efficiency and effectiveness of the Fisheries Program in achieving resource, financial, and workforce management goals.

Tactic 1.2.1 – Utilize the Service’s Fisheries Information System (FIS) database to capture critical performance measure accomplishment outputs.

- a. Field offices will annually review their planned work activities, estimate annual performance measure accomplishments (targets), and evaluate progress towards achieving those targets prior to end of year accomplishment reporting.
- b. Field offices will annually review and update biological information within the FIS Population module to ensure that it is current and accurately reflects the best available information on the biological status for each fish population⁴ within their area of responsibility.

Tactic 1.2.2 – Evaluate success in achieving conservation goals via performance reporting in the annual budget process.

Tactic 1.2.3 – Improve accountability to partners via better communication of our work plans and our achievements as identified in Tactics 1.1.1 and 1.2.2.

⁴ The term *fish population* in this context refers those populations identified in the FIS database which oftentimes represent meta-populations within watersheds or fish stocks in large geographic landscape areas, often coinciding with multiple fish stocks within ADF&G’s management areas.

Focus Area:
Aquatic Species Conservation and Management

Native Species

From a national perspective, Alaska is unique because much of its aquatic resources have not yet suffered as extensively from the detrimental effects of overfishing, habitat degradation and loss, pollution, and the introduction of nonnative species that have devastated wild populations of aquatic species in the rest of the Nation. Over time, these factors coupled with climate change, may present a greater threat to Alaska's aquatic resources than they do today; ultimately threatening the economic and ecological vitality of the State. The major difference between aquatic resource management in Alaska and in other parts of the country is that we still have the opportunity to maintain what we have while developing a diverse and healthy economy.

Climate Change

Global climate change is having measurable effects on aquatic systems in Alaska, and fish populations in the region will undoubtedly be affected. Chukchi and Beaufort Sea temperatures are rising and salmon are being captured along the north coast in increasing frequency. They may establish spawning populations in rivers where they have not been before. Many glaciers throughout Alaska are receding at rapid rates and summer stream flows will be dramatically reduced. Fish species such as Arctic grayling and Dolly Varden that live and overwinter in glacial streams will be faced with very different environments when flows decline. Ice-free periods in many of the large rivers and lakes in Alaska are getting longer and water temperatures are increasing. Certain fish diseases such as *Ichthyophonus* infections, which are more virulent in warmer waters, have had deleterious impacts on Yukon River Chinook salmon in recent years. Additionally, many features of fish physiology such as spawning time and egg development rates, are related to water temperature. A warming trend may influence migration, spawning, and hatching time of fish and may make aquatic ecosystems more susceptible to invasion from non-native species.

Maintaining what we have and understanding changes requires working with our partners to prioritize and fill critical information gaps, making careful and informed management decisions, protecting habitats now before population losses are significant, and involving the public as an active partner in conserving Alaska's fishery resources. To do so, managers have a variety of tools at their disposal; these include management planning, population assessment and monitoring, habitat assessment and restoration, aquatic invasive species prevention and control, and aquatic education and outreach. The challenge is in determining the most effective allocation of our limited resources to maximize our ability to maintain or improve what we have.

Alaska Whitefish Assessment and Monitoring

Whitefish are widely distributed throughout Alaska, and are most common in the northern and western areas of the state. These species are targeted in subsistence, sport, and commercial fisheries and are also important to ecosystem functions as prey for many species of fish, birds, and mammals. Many Alaska whitefish populations undertake extensive migrations that rival distances traveled by returning salmon. The Alaska Fisheries Program is recognized as a leader in whitefish research in the state and with interest in these species expanding, the Program will continue to identify whitefish as high priority species for fishery conservation in Alaska.

Fundamental to conserving and managing Alaska's aquatic native species is having sufficient baseline and time-series data. The Service uses these data to monitor status and trends on National Wildlife Refuges, provide for the subsistence fishing priority on Federal conservation units as specified in ANILCA, and provide constructive input when developing projects. The ADF&G uses these same data to manage fish populations to sustain important subsistence, recreational, and commercial fisheries throughout the State. Decision makers in other Federal and State agencies and local governments also use these same data. However, a persistent problem is that too few baseline and time-series data exist for most aquatic resources in Alaska. The State's large size, coupled with the logistical and budgetary constraints associated with conducting monitoring and assessment studies in remote areas, contribute to the paucity of baseline information necessary for making informed decisions. A major challenge is deciding where to use limited funding to monitor stock-specific and broad scale trends to support the conservation and management of Alaska's fish populations.

Another challenge is ensuring that existing fisheries data and expertise are incorporated into the development of internal and external aquatic resource conservation and management plans. In many cases, data are not readily available or easily accessible to those that need to use them for making decisions.

Goal 2.1 – Self-sustaining populations of native fish and other aquatic resources that maintain species diversity, provide subsistence, recreational, personal use, and commercial opportunities for the American public, and meet the needs of tribal communities.

Objective 2.1 – Restore declining fish and other aquatic resource populations before they require listing under the *Endangered Species Act*.

- a. By September 30, 2013, in cooperation with ADF&G and others, help ensure that 99%⁵ of populations of native aquatic non-T&E species are self-sustaining in the wild, as prescribed in management plans⁶ – Fisheries (PART⁷)

⁵ The Alaska Fisheries Program uses a combination of criteria to evaluate if a fish population is at self-sustaining

- b. By September 30, 2013, know the current status (e.g., quantity and quality) and trend of 79% of populations of native aquatic non-T&E species managed or influenced by the Fisheries Program - Fisheries (PART)
- c. By September 30, 2013, 57 % of populations of native aquatic non-T&E species have approved management plans - Fisheries (PART)

Objective 2.2 – Maintain diverse, self-sustaining fish and other aquatic resource populations.

- a. By September 30, 2013, 31% of tasks prescribed in management plans will be implemented - Fisheries (PART)

Tactic 2.2.1 – Identify threats to resources, prioritize information needs, and incorporate information into management plans.

- a. By January 30, 2010 each Fisheries field office will work with local ADF&G staff, Refuges, and other partners to update Fisheries field office 5-year work activity plans, prioritizing monitoring and research needs on an area-by-area basis. Fisheries vulnerability assessments associated with climate change will be given special consideration in updating work plans.
- b. All high priority projects not currently funded will be included in the Fisheries Operations Needs (FONS) module within the FIS database. FONS project priorities will be reviewed and updated by the field offices and the regional office annually.
- c. Continue to participate in regional planning efforts for NFHAP partnerships, climate change forums, Refuge coordination meetings, committees within the Yukon and Kuskokwim Rivers, Arctic-Yukon-Kuskokwim Sustainable Salmon Initiative, Southeast Sustainable Salmon Fund and others to prioritize information

levels; the determination is based on defined management objectives in a State fishery management plan or ancillary information regarding harvest trends and habitat quality. Currently, only lower Kuskokwim broad whitefish are identified as a population below the self-sustaining threshold among 142 other fish populations within the FIS database.

⁶ “Management plans” in the context of this document refer to a broad range of planning documents for the management of fish populations (see Glossary), e.g., fishery management plans for National Wildlife Refuges in Alaska or ADF&G fishery management plans.

⁷ PART stands for Program Accomplishment Rating Tool; it consists of established national performance measures used by the Service for rating its accomplishments.

needs and to develop long-term monitoring programs.

- d. Meet at least once annually with Service Conservation Planning Assistance staff to identify threats to aquatic resources from development projects under their review, to ensure that their information needs are incorporated into statewide and regional plans.
- e. Participate with ADF&G in the development and review of escapement goals for salmon stocks on National Wildlife Refuges in Alaska⁸.

Tactic 2.2.2 – Fund projects that address high priority information needs.

- a. As part of annual work planning, identify projects in management plans to ensure that the highest priority needs are addressed.
- b. Integrate annual work planning with that of the ADF&G and other partners, given constraints of the various funding sources, to collectively ensure that the highest priority information needs are addressed.
- c. Include a timeline in all Fisheries investigation plans to ensure that projects are being carried through to completion; timely completion of projects provides the opportunity for redirecting funds to the next highest priority need.

Tactic 2.2.3 – Ensure that high priority issues are addressed by acquiring additional funding.

- a. Enter priority projects identified in 2.2.1 into FONS, and also in the Refuges Operating Needs System (RONS) when such projects occur on National Wildlife Refuges.
- b. Alaska Region leadership will meet annually to develop joint budget initiatives to address high priority information needs. These initiatives will be developed in a collaborative manner with appropriate partners and will be carried forward to National initiatives.
- c. Identify alternative funding sources within and outside Service programs to help address priority issues.

Tactic 2.2.4 – Ensure that information is made available for planning and

⁸ The Service has a responsibility to “(a) provide for the conservation of fish, wildlife, and plants, and their habitats within the System; (b) ensure that the biological integrity, diversity, and environmental health of the System are maintained for the benefit of present and future generations of Americans” (Refuge improvement Act of 1997, Public Law 105-57 Section 5(4)).

decision-making.

- a. Promote and support the development of geographically-linked and shared database systems in partnership with other agencies and organizations that collect physical and biological information important for Alaska fisheries conservation.
- b. Continue to post all Fisheries Program project reports on the Region's Fisheries website.
- c. Adhere to reporting deadlines identified in investigation plans.
- d. Give publication of results, through outlets such as Alaska Fisheries Data Series and Technical Reports, or the Service's Journal of Fish and Wildlife Management and North American Fauna, a higher priority than the initiation of new studies in annual work plans for field offices.
- e. Coordinate with local area ADF&G biologists annually during the Service's fish collecting permit application process. Annually provide biological summary results as specified under provisions of the collecting permit.

Tactic 2.2.5 – Inform and educate the public about the threats to Alaska's fishery resources so they are wise stewards of these resources.

- a. Ensure that information on the Fisheries Program's website is current and easily understandable (see Tactic 1.1.2).
- b. Develop feature articles for the Service's Fisheries publication *Eddies* that highlight the work of the Fisheries Program in collaboration with our partners.
- c. Collaborate with ADF&G and other partners on aquatic resource information and education efforts (see Tactic 2.2.1).
- d. Raise Fisheries outreach and education as a priority at all field stations (see Tactic 3.2.2).

Focus Area:

Aquatic Species Conservation and Management

Aquatic Invasive Species

Aquatic invasive species are nonindigenous plants and animals that threaten the diversity or abundance of native species, the ecological stability of infested waters, and the commercial, agricultural or recreational activities dependent on those waters. Across the nation, these nonnative species introductions are second only to habitat alteration as a main contributor to the decline of native species in North America. In many aquatic systems, they are in fact the leading cause of native species extinctions. Fewer aquatic invasive species have become established in Alaska than in many other states. Although the known impacts of aquatic invasions in Alaska are still fairly limited, the risks and the uncertainties are both high and will only increase as the climate warms.

Ballast water and hull fouling from shipping activity are known to be major sources of invasive species and present a significant risk to native species at Alaska ports and in its coastal waters. The fact that Port Valdez, in Prince William Sound, receives the third highest volume of ballast water of any U.S. port underscores the potential for shipping to serve as an invasive species pathway to Alaskan waters. The extraordinary importance of shipping for transporting oil and gas, coal, logs, and other goods between Alaska and ports in the contiguous United States, and other countries, adds to this risk. Because climate change and the loss of sea ice are projected to lead to expanded northern shipping, the risk of shipping-mediated species invasions in Arctic and Bering Sea coastal waters will increase.

Alaska Ballast and Shipping Initiative – With over 40,000 miles of coastline that link Alaskans to the bounty and benefits of the seas, from salmon to marine mammals to vital supply lines, we must be vigilant in protecting our ports and coastal communities from the risks of invasion. With that many miles of coastline and the thousands of ship visits per year, it also means we cannot do it alone. Under this initiative, the Service has worked with our partners at the Prince William Sound and Cook Inlet Regional Citizens’ Advisory Councils to survey coastal waters for biological invaders, examine methods to prevent invasions from ballast water or fouling organisms on ship hulls; and engage coastal communities in helping to be the eyes and ears that can help detect new invasions. In collaboration with the Smithsonian Environmental Research Center, the Service funds school children and local volunteers in nearly a dozen Alaska communities to annually set out traps for European green crabs and settling plates for invasive tunicates. As the climate warms and the risks of invasion spread northward, additional communities throughout Alaska may be added to this network. These young citizen scientists learn about invasion biology, and help sustain the quality of Alaska’s vital link to the sea.

We also know that Alaska, with its abundant resources, is a popular destination for anglers, boaters, and adventure travelers from the lower-48 states, as well as from across the globe. However, we are only beginning to learn the pathways through which invasive species may be introduced and the potential affect they may have on the State's native species.

Of particular concern to Alaska are northern pike which are indigenous to parts of Alaska, but which have been illegally transported to south central Alaska where they have damaged valuable trout and salmon fisheries; tens of thousands of Atlantic salmon farmed in floating ocean net pens escape into the North Pacific Ocean annually and pose a serious threat to Alaska's native salmon species; European green crabs which can compete with commercially important native crab species and are now projected to be able to establish widely in Alaska coastal waters as the climate warms; Chinese mitten crab, an invader that can feed directly on salmon eggs and is abundant in the west coast ports whose waters are often released as ballast in Alaska; New Zealand mudsnails which have proliferated in the western U.S. and, if introduced to Alaska, could threaten its world class trout fisheries; and invasive aquatic plants like purple loosestrife and Eurasian watermilfoil, which could disrupt fish passage, reduce migratory bird habitat, and even present a risk to human health and safety by interfering with safe floatplane operation.

The huge expanse of Alaska, the complexity of its coastline, the innumerable water bodies, and the relative paucity of human capital to detect and respond to an invasion presents a daunting challenge. However, there is still an opportunity in Alaska to avoid the overwhelming impacts invasive species have caused in the lower-48 states, but only if the effort is made now. To be effective in the long-term, that effort must fully engage Alaskans as citizen scientists to be our expanded network of eyes and ears on-the-ground and in-the-water.

Goal 2.2 – Risks of aquatic nuisance species invasions are substantially reduced, and their economic, ecological, and human health impacts are minimized.

Objective 2.2a – Prevent new introductions of aquatic nuisance species.

Objective 2.2b – Minimize range expansion and population growth of established aquatic nuisance species.

Tactic 2.2.1 – Raise awareness of the extent of the threat of invasive species and the need to prevent their introduction and limit the spread of those already in Alaska.

- a. Continue to meet regularly with ADF&G to focus on effective implementation of the State's Aquatic Nuisance Species Management Plan and expanding, as appropriate, the number of species addressed and range of partners involved in aquatic nuisance species prevention and control.
- b. Expand participation in outreach events such as boating, fishing, outdoor shows, and school events. Develop outreach materials for and participate in at

least one major outdoor show in Alaska each year.

- c. Work with the ADF&G and other partners to develop at least one collaborative prevention-oriented outreach activity annually.
- d. Collaborate with Refuges and other Service programs on outreach and prevention planning (see also Tactic 2.2.5).
- e. Participate in ADF&G “Aquatic Nuisance Species Coordinating Committee” meetings and support other statewide interagency and intergovernmental coordinating forums, through Memoranda of Understanding and direct participation, as appropriate.

Tactic 2.2.2 – Identify potential invasive species, understand pathways of potential transport, and prevent introduction of harmful nonnative species.

- a. Support collaborative investigations of invasive species and their potential pathways.
- b. By December 31, 2011, improve understanding of climate-induced changes to potential introduction, establishment and risk patterns for invasive species in Alaska.
- c. By December 31, 2010, work with partners to establish priorities for field and laboratory (e.g., genetic) invasive species identification protocols.
- d. By December 31, 2011, work with the ADF&G and the Alaska Natural Heritage Program to develop a unified database of invasive species sightings.
- e. Train Service and partner personnel in the use of invasive species identification materials and sampling and reporting protocols.
- f. Continue to work with other knowledgeable sources (e.g., Regional Citizens’ Advisory Councils, NOAA, USCG, and private industry) on methods to minimize shipping-mediated introductions.
- g. By September 30, 2013, conduct ten (10) surveys for early detection and rapid response for aquatic invasive species

Tactic 2.2.3 – Increase efforts to coordinate Alaska-based efforts with national and international efforts on high-risk pathways to reduce the likelihood of the introduction of new aquatic species associated with those pathways.

- a. Review and comment, in collaboration with partners, on all Aquatic Nuisance Species Task Force (ANSTF) and National Invasive Species Council (NISC) draft prevention or control plans, and participate in ANSTF or NISC prevention panels as appropriate.
- b. Continue to work with sport fishing guides and adventure tours and lodges to assess visitation to Alaska as a pathway for introduction of New Zealand mudsnail and prevent mudsnail introduction to Alaska; by April 30, 2010, expand the effort to include National Wildlife Refuges, National Park Service, and other partners.
- c. Work with ADF&G to encourage the U.S. Coast Guard to initiate ballast water sampling and improve compliance with ballast water management regulations in Alaska.
- d. Continue to work with State of Alaska to assist in minimizing the risks of introduction of aquatic nuisance species through new aquaculture imports and facilities, review and provide comments on State of Alaska aquaculture regulations as they are developed and shared.

Tactic 2.2.4 – Facilitate the prevention and control of aquatic nuisance species through the development, implementation, and support of State management plans, invasive species control plans, regional panels and other mechanisms.

- a. Provide logistic, technical and coordination support to ADF&G to implement the State of Alaska Aquatic Nuisance Species Management Plan.
- b. Participate in Aquatic Nuisance Species Task Force Regional Panels.
- c. By September 30, 2013, conduct 5 activities (1/yr) to support the management/control of aquatic invasive species - Fisheries (PART)

Tactic 2.2.5 – Increase awareness of Hazard Analysis and Critical Control Points (HACCP) or similar control planning within the Service and among our partners in Alaska.

- a. By September 30, 2010, the Regional Invasive Species Coordinator will formulate how the Alaska Region of the Service can further implementation of Service Manual Chapter 750FW1, Managing Invasive Species Pathways.
- b. By March 31, 2010, the Regional Invasive Species Coordinator will participate in HACCP Planning Training.
- c. By March 31, 2011, the Regional Invasive Species Coordinator will initiate

efforts to develop HACCP training and implementation within the Fisheries Program and other partners in Alaska as needed.

Tactic 2.2.6 – Work with Refuges, ADF&G, Alaska Native organizations, other Federal agencies, and nongovernmental organizations to increase detection, rapid response and other capabilities to control aquatic nuisance species populations and prevent their expansion.

- a. By December 31, 2009, establish a cross-programmatic, Alaska Region Invasive Species Team and oversee Team activities.
- b. Continue to collaborate with Refuges to determine the feasibility of preventing and eradicating aquatic invasive species from selected Refuges in Alaska.
- c. Assess the feasibility of developing detection and rapid response protocols and training materials for green crabs, mitten crabs, tunicates and other invasive species, and make such materials available to appropriate Service and partner personnel.

Focus Area:
Aquatic Species Conservation and Management

Interjurisdictional Fisheries

Responsibility for managing native, interjurisdictional fisheries in the United States is assigned by many laws, treaties, and court orders, and follows no single model. By definition, interjurisdictional fisheries management is a collaborative process involving State, Federal, Tribal, and international governments. This process is represented by two examples in the Alaska Region. One is State and Federal management of subsistence fisheries within and adjacent to Federal conservation units in Alaska and the other is related to meeting U.S. obligations under the international Yukon River Salmon Agreement.

Yukon River Salmon Agreement - In March 2001, after 16 years of negotiations, the U.S. and Canada reached a long-term agreement on the conservation and allocation of Canadian-origin, Yukon River salmon. The Fisheries Program was involved in these negotiations since their inception in 1985 and is now participating as a partner with the ADF&G to ensure our U.S. obligations with Canada are met. Federal funds provided to the parties as a result of establishing the Yukon River Salmon Agreement have greatly assisted in managing U.S. fisheries to help meet obligations for Canadian border passage, and have funded projects to enhance knowledge of salmon migrations, run strength, and harvests, and to develop better tools for preseason forecasting.

The Ninth Circuit Court decision in *Alaska v. Babbitt* (1995) expanded Federal responsibility to include fisheries as part of the ANILCA subsistence priority for rural residents in applicable waters⁹. As such, the Federal government began managing subsistence fisheries on Alaskan rivers and lakes within and adjacent to Federal public lands in 1999¹⁰. This Federal authority is unique to Alaska. One challenge is to coordinate this effort between the State and Federal agencies to reduce conflicts to the greatest extent possible in areas where their respective regulatory processes may overlap. Federal involvement in managing subsistence fisheries has provided an influx of funds to fill data gaps, and has benefitted the State's management of subsistence as well as recreational and commercial fisheries. Here, the challenge is to ensure that the highest priority data needs are being addressed in concert with ADF&G, other partners, and affected parties.

⁹ Applicable waters are those navigable waters where the Federal government holds reserved water rights. Identification of those waters was remanded to the Federal agencies and continues to be litigated.

¹⁰ Federal subsistence regulations are mostly coincident to State subsistence regulations on waters subject to Federal subsistence jurisdiction. Such Federal regulations apply only to Federally qualified residents except when specific restrictions on non-Federally qualified users are promulgated to assure the Federal priority for qualified rural residents and/or healthy fish populations.

Goal 2.3 - Interjurisdictional fish populations are managed at self-sustaining levels.

Objective 2.3 - Co-manage interjurisdictional fisheries.

- a. By September 30, 2013, 1000 fish population assessments will be completed (200 annually).
- b. By September 30, 2013, 4 fishery management plans will be completed or revised.

Tactic 2.3.1 –Maintain a strong field operations component to the Fisheries Program to ensure that the highest priority fish population assessments are completed.

Objective 2.4 - Support, facilitate, and/or lead collaborative approaches to manage interjurisdictional fisheries.

- a. By September 30, 2013, 100% of fish species of management concern will be managed to self-sustaining levels, in cooperation with affected States and others, as defined in approved management documents (GPRA).

Tactic 2.4.1 – Provide Fisheries Program coordination between the State and other Federal agencies to provide for the subsistence fishing priority for Federally qualified users as specified in ANILCA.

- a. Continue to lead coordination of the interagency Federal Subsistence Board, the interagency Staff Committee, and the 10 Regional Advisory Councils.
- b. Continue liaison with ADF&G and the Alaska Board of Fisheries.
- c. Facilitate development of additional protocols with ADF&G and periodic review of the MOU.
- d. Coordinate inseason management actions with refuge managers, other Federal land managers, and State managers per established protocols.
- e. When appropriate, hold joint meetings of the three Yukon River Advisory Councils.

Tactic 2.4.2 – Provide managers with information on stock abundance and trends.

- a. Participate in planning efforts to integrate Federal information needs and funding with statewide and regional research and management plans.

Tactic 2.4.3 – Improve information and assessments for decision-making to ensure that U.S. obligations under the Yukon River Salmon Agreement are met.

- a. Continue to actively participate in the U.S.-Canada Joint Technical Committee (JTC) and contribute to the implementation of the JTC Plan (March 2005), through the *Research and Management Fund*, and other sources.
- b. Continue to participate in the review and implementation of the Yukon River Panel's Budget Priorities Framework (draft December 2007). Work through the Yukon River Panel to use the Yukon River Restoration and Enhancement Fund to fund the highest priority projects in the Framework.
- c. Continue to participate in the North Pacific Fisheries Management Council process to ensure Yukon River origin salmon by-catch issues are considered.

Focus Area:
Public Use

Recreational Fishing

The Service has a long tradition of providing opportunities for public enjoyment of aquatic resources through recreational fishing and aquatic education programs. Nowhere is this more true than on the streams, rivers, and lakes contained in the 77 million acres of National Wildlife Refuges in Alaska. Alaska's National Wildlife Refuges provide high quality recreational fishing opportunities for five species of Pacific salmon, rainbow trout, Dolly Varden char, Arctic grayling, sheefish, northern pike, and other species. Historically, the Alaska Region's Fisheries Program has had lead responsibility for the development of Refuge fishery management plans and conducting assessments aimed at sustaining fish populations to provide for recreational and other uses on National Wildlife Refuges in Alaska.

Recreational Fishing Outreach- The Fisheries program works to promote recreational fishing and conservation through education in our communities. Our goal has been to enhance the understanding, appreciation, and stewardship of Alaska's fishery resources. To accomplish this, we participate in a wide variety of outreach programs. As example, A "Pathway to Fishing" event is conducted each year in conjunction with the Kenai River Festival to teach young anglers about fish biology, sport fishing equipment and techniques, water safety, and angler ethics – the event culminates in a very popular casting practice. In 2008, we also partnered with the Kenai Community Library and Trustworthy Hardware to create a Fishing Rod Loan Program. The program is for kids aged 15 and under, and provides fishing rods that can be checked out from the library – just like checking out a library book!

In recent years the Fisheries Program has reduced its emphasis on recreational fishing due in large part to the workload associated with establishing a program to provide for the rural subsistence priority as specified in ANILCA and shifting to habitat conservation issues associated with residential and urban development. Successful implementation of the Federal Subsistence Program affords the Fisheries Program the opportunity to spend more effort on recreational fishing – in particular information needs related to National Wildlife Refuges and ADF&G priority management questions.

Goal 3.1 – Quality opportunities for 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.

Objective 3.1 – Enhance recreational fishing opportunities on Service and Department of Defense lands.

- a. By September 30, 2013, provide recreational fishing opportunities for 100% of all recreational fish species for which the Fisheries Program has a defined statutory or programmatic responsibility.

Tactic 3.1.1 – Coordinate with ADF&G and Refuges on recreational fisheries conservation and management issues.

- a. Meet annually with Refuges and ADF&G or more frequently as necessary, to identify priority fisheries management or access and competing use issues for recreational fish species on Alaska National Wildlife Refuges (see Tactic 1.1.1 on specific forums for collaboration).
- b. Fisheries field offices will incorporate priority Refuge recreational fisheries issues into their 5-year work activity plans and seek opportunities to implement projects in partnership with ADF&G and Refuges. This may often require collective efforts under Tactic 3.1.2.

Tactic 3.1.2 – Acquire additional funding to satisfy unmet information needs.

- a. Use Service funds to leverage funds within ADF&G-Sport Fish Division, Refuges, or other sources to conduct mutually beneficial, high priority projects that enhance recreational fishing opportunities.
- b. Ensure that priority information needs that benefit recreational fisheries on Refuges are included in FONS and RONS for purposes of seeking project implementation funds.

Tactic 3.1.3 – Work with Refuges to develop a link on the Region’s web-sites that describes the wide variety of sport fishing opportunities available on Alaskan Refuges.

Tactic 3.1.4 – Provide Fisheries expertise and support to Refuges in the Refuge Comprehensive Conservation Plan (CCP) and Biological Review processes.

- a. Fisheries field offices will assist Refuges in updating CCPs by providing up to date fishery resource information and defining priority information needs and conservation threats to aquatic resources.
- b. Fisheries Program staff will participate in Refuge biological reviews as a means of prioritizing fisheries and aquatic resource issues and seek cooperative strategies to address them.

Objective 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.

- a. By September 30, 2013, 100 % of sport fish populations are at levels sufficient to provide quality recreational fishing opportunities - Fisheries (PART).

Tactic 3.2.1 – Collaborate with ADF&G and other partners on recreational fishing and aquatic education outreach efforts.

- a. Ensure that aquatic education and outreach efforts within each Fisheries field office are clearly defined within staff's work responsibilities.
- b. Raise the importance of education and outreach by ranking these projects in FONS as a high priority.
- c. Recruit staff that are trained and interested in conducting outreach and education activities.
- d. Provide training to all staff to increase effectiveness of interactions with the public.
- e. Continue involvement in Science Camps, Adopt-A-Stream programs, National Fishing Week events, development of school curricula, and community presentations.

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

- a. By September 30, 2013, achieve 4000 volunteer participation hours (800 hrs annually) supporting Fisheries objectives.

Tactic 3.3.1 – Each field office, on an annual basis, will actively recruit for volunteers to assist our Alaska Fisheries Program to help us achieve our work activities, and to provide volunteers an opportunity to gain first hand knowledge and experience.

Focus Area:

Cooperation with Native Americans

The Alaska Region's obligations to Tribes are unique among Service Regions. Our interactions with Alaska Native governments and organizations are largely directed by the provisions of ANILCA and Alaska Native Claims Settlement Act. This differs from other parts of the country, where the Service's involvement with Native Americans is primarily guided by reserved doctrine rights, Executive Orders, judicial mandates, and specific treaties between the Federal government and Native American governments. As a result, only one Tribe in Alaska, the Metlakatla Indian Community of the Annette Island Reserve, has management jurisdiction over fish and wildlife on their lands. This difference does not preclude the Service from partnering with Alaska Tribes and Native organizations in fish and wildlife conservation activities.

Fisheries Capacity Building - The purpose of the Partners for Fisheries Monitoring Program (Partners Program) is to enhance capacity building and integration of rural communities and Alaska Native organizations into subsistence fishery management in Alaska. The Partners Program provides for the hiring by tribal and regional nonprofit organizations of fishery biologists, social scientists, education professionals and interns. The Office of Subsistence Management mentors and guides the development and implementation of effective partnerships, including multiple unique agreements with non-government organizations to increase rural and Alaska Native participation and involvement in the subsistence fisheries management program. Partners Program efforts are integrated into the Fisheries Resource Monitoring Program with oversight by Service staff. Partners lead projects collecting information on stock status and trends, harvest monitoring, and traditional ecological knowledge.

Our goal is to continually improve working relationships with Alaska Natives. Given the unique circumstances and legislation underlying the relationship between Federal agencies and Alaska Natives, we must work collaboratively to achieve common goals. Alaska Tribes and Native organizations offer special opportunities for partnering. They are intimately connected to the culture and fabric of local communities and have a very strong interest in fish, wildlife, and habitat conservation. The Service's Fisheries Program welcomes opportunities to partner with Alaska Tribes and Native organizations.

Goal 4.1 – Improve working relationships with Alaska Natives to achieve common goals¹¹.

Objective 4.1 – Provide technical assistance to Alaska Tribes, Alaska Native and rural organizations to help those entities develop capacity to participate in aquatic resource conservation.

Tactic 4.1.1 – Continue to provide technical assistance via the Partners for Fisheries Resource Monitoring Program to build local capacity in fisheries research and monitoring.

Objective 4.2 – Recognize and promote the Service’s distinct obligations toward Alaska Tribes and Alaska Native organizations within the Fisheries Program.

- a. By September 30, 2013, complete 20 training sessions to support Tribal fish and wildlife conservation (4 annually).

Tactic 4.2.1 – Ensure meaningful consultations with Tribal governments on Fisheries Program projects that occur on or adjacent to regional and village corporation lands.

- a. Fishery investigation plans are shared, and regional and village corporations are consulted regarding projects that occur on or adjacent to their lands.
- b. Annual project reports and updates are provided to local community representatives.

¹¹ The National goal is “Assistance is provided to Tribes that results in the management, protection, and conservation of their treaty-reserved or statutorily defined trust natural resources which helps Tribes develop their own capabilities.” This goal was modified because the Alaska Region's obligations to Tribes differ from that of other Regions of the Service, and to recognize the mutual benefits of partnering with Alaska Tribes and Native organizations.

Focus Area

Leadership in Science and Technology

Science and technology form the foundation of successful fish and aquatic resource conservation. Both are used to structure and implement monitoring and evaluation programs that are critical to determining the success of management actions. Of utmost importance is ensuring partner confidence in the appropriateness and quality of Service work products. This is currently accomplished in three ways. First, the Alaska Region's Fisheries Program has an Investigation Plan Policy to ensure that projects are statistically rigorous and scientifically defensible; the Regional biometrician provides support and oversight of compliance with the policy. Second, the Alaska Region's Fisheries Program has a publication policy to ensure that all study results are published and disseminated. Third, staffs are encouraged to participate in scientific meetings to present results and receive feedback.

Fisheries Genetics Conservation- The sophisticated laboratory techniques and analytical methods of conservation genetics are increasingly being applied to a variety of species in many fish and wildlife management contexts. Genetic data is critical to accurately measure and assess the status of fish species, especially in response to human activities and climate change. Genetic variation provides the raw material for species adaptation and evolutionary flexibility in response to environmental change. As genetic diversity declines, a species' ability to adapt to environmental change decreases and risk of extinction increases. Understanding genetic relationships among organisms is increasingly crucial in defining population boundaries and management units, divisions which provide a framework for monitoring species' health as well as the effects of conservation actions.

In Alaska, conservation genetics has long been an integral part of fisheries management and conservation activities. Providing conservation genetics research and support to the Fisheries program and its partners is the primary function of the Region's Conservation Genetics Laboratory (CGL). Established in 1987, the CGL was the first conservation genetics facility in the Service and remains the largest. The CGL designs and conducts genetic research and provides expertise to address conservation and management issues in Alaska, as well as other Service Regions across the country. The need for genetic information to inform conservation efforts for North America's fish and wildlife species will continue to increase into the foreseeable future. The CGL is uniquely positioned to continue providing genetics expertise for the Service in Alaska, and throughout the United States, to enhance its conservation efforts.

Fisheries biologists at our FWFOs continually work at developing and applying new technologies to improving efficiencies of fisheries assessment studies. As an example, we have advanced application of video technology to accurately monitor salmon and steelhead returns in Alaska. Underwater video systems have become an important tool allowing resource managers to do more with less. Use of these systems has greatly reduced field crew size, improved the

quality of the data collected, and reduced overall field operational costs.

The following goals, objectives, and tactics were devised to meet the scientific and technological needs of the Fisheries Program.

Goal 5.1 – Science developed and used by Service employees for aquatic resource restoration and management is state-of-the-art, scientifically sound and legally defensible, and technological advances in fisheries science developed by Service employees are available to partners.

Objective 5.1 – Use appropriate scientific and technologic tools in formulating and executing fishery management plans and policies.

- a. Provide 100% compliance with Alaska Region Fisheries Program investigation plan and publication policies.

Tactic 5.1.1 – Adhere to the highest scientific standards and ethics in all Fisheries Program activities to improve partner confidence in the appropriateness of Service science.

- a. Ensure that employees have the requisite training needed to carry out scientific studies (Tactic 7.2.1). Incorporate training needs into employee Individual Development Plans, and review developmental progress during bi-annual performance evaluations.
- b. Maintain a rigorous peer review process for Fisheries Program investigation plans and technical reports.
- c. Ensure that studies funded by the Service, but conducted by partners, are covered by investigation plans consistent with Fisheries Program policy.
- d. Foster scientific professionalism by encouraging membership and participation in professional scientific societies and organizations.

Tactic 5.1.2 – Identify and prioritize research needs on a regional basis annually, based on input from partner coordination meetings identified in Tactic 1.1.1.

- a. Based on input from the individual partner coordination meetings mentioned in Tactic 1.1.1, the Regional Office will develop a consolidated list of research needs. Those needs will be prioritized on a regional scale within FONS.

Objective 5.2 – Develop and share applied aquatic scientific and technologic tools with partners.

- a. By September 30, 2013, 20 applied aquatic science and technologic tools will be developed through publications (4 annually).

Tactic 5.2.1 – Technological advances in the areas of genetics and fisheries techniques will be reported in publication outlets or shared at professional meetings annually.

Focus Area

Aquatic Habitat Conservation and Management

Aquatic habitat loss, degradation, and fragmentation are leading causes of aquatic species decline in North America and unfortunately Alaska is not immune to this national trend.

With tens of thousands of streams in Alaska, many in largely undeveloped watersheds, the fact that fish passage could be a significant threat to the State's fish populations may come as a surprise to many. However, recent surveys have demonstrated that thousands of culverts underlying major highways, city streets, and forest roads impede fish migrations. In fast-developing regions such as the Matanuska-Susitna Valley and the Kenai Peninsula, as many as 80% of surveyed culverts may be inadequate for the passage of fish at certain life stages and within certain flow regimes. Such barriers within a drainage can lead to reduced escapements, reduced productivity, and reduced opportunities for subsistence, recreational, and commercial fishers.

Fish Passage Program in Alaska - The Fish Passage Program provides technical assistance and federal funds to partners who wish to remove, replace, or retrofit culverts, weirs, abandoned dams, or other structures that impede fish movement. Through these partnerships, the Service has restored access to hundreds of miles of spawning and rearing habitat for both anadromous and resident fish species. We have worked in partnership with the State and local governments and local watershed groups to identify and evaluate over 1,100 stream crossing structures along thousands of miles of Alaska streams.

In addition, wetland development, natural resource extraction, urban sprawl, and hydroelectric projects have the potential to further degrade aquatic habitat and reduce water quality and quantity if not implemented with adequate environmental safeguards. The Service's role here, primarily through its Conservation Planning Assistance (CPA) Program, is to work with the responsible agencies to avoid, minimize, or mitigate the impacts of development on aquatic habitats. The Service is implementing a "Green Infrastructure" approach, working collaboratively with the State and local communities to minimize these negative impacts to aquatic habitats. To make informed decisions on such impacts requires expertise in fish biology, fish ecology, hydrology, and watershed science.

Anadromous Waters Catalog – Alaska fish habitat protection authorities and conservation planning processes are constrained by the limited extent of current information of fish distributions and their habitats. Alaska Statute 41.14.870 (Catalog of Waters Important for Spawning, Rearing, and Migration of Anadromous Fishes; AWC) affords considerable protection to anadromous fishes and their habitats. However, it is estimated that less than half the waters in the State that are used by anadromous fishes have been documented within the AWC. Documentation of specific salmon spawning and rearing areas ensure that adequate measures are in place for land use planning and help avoid costly restoration work in the future. Our Fisheries Program is well positioned to continue providing assistance to the State in collecting stream inventory information and extending AWC distributions.

The Fisheries Program is playing a leading role in the establishment of Alaska’s Fish Habitat Partnerships and is working with our partners to implement the habitat restoration and protection goals of the NFHAP. Addressing these issues in Alaska means developing new techniques, educating ourselves and our partners in state-of-the-art habitat restoration techniques, developing and implementing watershed restoration plans, and making appropriate staffing decisions.

Goal 6.1 - America’s streams, lakes, estuaries, and wetlands are functional ecosystems that support self-sustaining communities of fish and other aquatic resources.

Objective 6.1 - Facilitate management of aquatic habitats on national and regional scales.

Tactic 6.1.1 – Identify and implement significant watershed assessment management programs with partners to ensure that habitat conservation and restoration is an integral component of management actions.

- a. Continue involvement with fish habitat partnerships, watershed councils, State agencies, and other non-governmental organizations to address water quality and habitat issues in Alaska.
- b. Provide technical review of fish and fish habitat related projects supported by Partners for Fish and Wildlife, Coastal, Fish Passage, and NFHAP programs in each field office.
- c. Continue participation in NFHAP’s Recognized and Candidate Fish Habitat Partnerships to conserve fish and wildlife resources on public and private lands in priority ecosystems.
- d. Apply the Green Infrastructure approach and the Strategic Habitat Conservation framework to assure habitat conservation and the sustainability of fish populations at the landscape scale.

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

- a. By September 30, 2013, 1000 acres will be reopened to fish passage.
- b. By September 30, 2013, 125 miles will be reopened to fish passage.

Tactic 6.2.1 – Continue to work with other Federal agencies, ADF&G, Alaska Department of Transportation, Alaska Railroad, boroughs, municipalities, Alaska Native entities, and private landowners to identify, assess and remove barriers to fish movement on their lands.

- a. By September 2010, organize another Fish Passage Design and Culverts workshop to provide state-of-the-art information regarding design and construction of embedded culverts simulating stream conditions and maximizing fish passage.
- b. In cooperation with partners, complete inventories of fish passage barriers in three watersheds per year.
- c. Work with ADF&G, Alaska Department of Transportation, and other partners to remove barriers to fish migration near population centers, transportation corridors, and areas of particular importance to anadromous fish.
- d. Continue to cooperate with ADF&G, USFS, and others to refine the fish passage survey protocols, upstream habitat assessments, and joint remediation strategies.
- e. By December 2010, through coordination with partners and Fish Habitat Partnerships, prioritize key watersheds for implementation and subsequent evaluation of aquatic habitat management and restoration projects.

Tactic 6.2.2 – Work with the Service’s Conservation Planning Assistance program , ADF&G, and NGOs to assess the cumulative impacts of development and resource extraction on fish populations and their habitats.

Objective 6.3 – Increase the quantity and improve the quality of aquatic and riparian habitat on lands within and adjacent to Service lands.

Tactic 6.3.1 – Assist Alaska Refuge’s Realty Division in evaluation of aquatic components in the Land Acquisition Priority System.

Tactic 6.3.2 – Conduct assessments of fish distribution, prioritized under Tactic 2.1.1, to identify areas with high aquatic resource values.

Tactic 6.3.3 – Train and assist Refuge engineering staff to properly design and install fish-friendly stream crossing structures on all Refuge roads.

Focus Area

Workforce Management

The Fisheries Program relies on a broad range of professionals to accomplish its mission: biologists, anthropologists, statisticians, geneticists, managers, administrators, clerks, and maintenance workers to name a few. Without their skills and dedication, the Fisheries Program cannot succeed. Employees must be trained, equipped and supported to perform their jobs safely, often under demanding environmental conditions, and to keep current with the constantly expanding science of fish and aquatic resource management and conservation. The Fisheries Program also relies on a diverse seasonal workforce to complete our field activities. The ability to recruit and select superior candidates from across the country in a timely manner is critical to accomplishing our mission on the ground.

A key challenge to achieving the goals in this plan is keeping the Program's workforce aligned with changing priorities. Meeting this requires recruiting the right people, retaining our employees to meet new challenges, providing quality training, and offering opportunities for career development. Current workloads, changing organizational structure, and changing issues often inhibit a manager's ability to see the big picture and to anticipate future needs. Demanding day-to-day workloads may cause staff to shy away from taking advantage of opportunities to advance their professional growth; such behavior ultimately reduces the available pool of future senior level biologists and managers.

Goal 7.1 – Maintain and support an adequately-sized, strategically positioned workforce with state-of-the-art training, equipment, and technologies in their career fields.

Objective 7.1 – Staff the Fisheries Program at levels adequate to effectively meet the Service's goals and objectives in fish and other aquatic resource conservation.

Tactic 7.1.1 – Keep the workforce aligned with changing priorities.

- a. Develop and adhere to annual prioritized work plans and align staff to address priorities for each field office each year.
- b. Examine each new vacancy as an opportunity to realign staff expertise to address changing priorities.
- c. Develop and promote interdisciplinary "Stream Teams" in the field offices to incorporate the diversity of expertise needed to efficiently and effectively conduct aquatic habitat improvement projects.

Objective 7.2 - Provide employees with opportunities to maintain competencies

needed to effectively address priority resource challenges; and improve opportunities for professional achievement, advancement, and recognition.

- a. All employees will receive 40 hours of annual training¹², in excess of required training, needed for achievement and advancement as identified in Individual Development Plans.

Tactic 7.2.1 – Renew the emphasis on annual performance evaluations to provide employees with positive meaningful feedback on job expectations, responsibilities, and job-related skills and training needed for future advancement.

- a. Annually, each Fisheries staff member will have in place an effective Individual Development Plan to further enhance their abilities to perform their job and to pursue their career path.

Tactic 7.2.2 – Provide staff with opportunities to excel in their current jobs and to advance into new ones.

- a. Each station will nominate an individual to the “Stepping up to Leadership” training at least once every 3 years.
- b. The Fisheries Program will nominate at least one individual to the “Advanced Leadership” training annually.

Objective 7.3 - Provide employees with access to facilities and equipment needed to effectively, efficiently, and safely perform their jobs.

Tactic 7.3.1 – During the annual budgeting and priority setting process, field supervisors will work with the Regional Office to identify top priority projects and the staffing, support services (e.g., computers and software, biometric support), safety, and training needed to accomplish the highest priorities.

¹² Training includes detail work assignments in other positions as well as participation and attendance at scientific meetings.

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 five criteria in deciding what fishery activities, opportunities, and issues to address; and consult partners as key decisions are made that affect the Program direction. 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 likelihood that our efforts will produce measurable resource results regarding the resource;
- The likelihood that our efforts will produce significant economic or social benefits; and
- The extent of partner support.

Evaluation and Reporting

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 the 2013 fiscal year. During the 2012 fiscal year, the Fisheries Program, with input from partners and stakeholders, will inventory (1) the status of the Region's aquatic resources 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 the 2013 fiscal year.

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Appendix: Program Performance Summary - Fisheries

Program Performance Summary – Fisheries

Measures listed under “Fisheries (PART)” may be common to both Fish and Wildlife Conservation Offices (Aquatic Invasive Species) and the National Fish Hatchery System

DOI Strategic Goal: Resource Protection					
Mission Goal: Protect the Nation’s natural, cultural and heritage resources					
DOI End Outcome Goal 2: Sustain Biological Communities on DOI Managed and Influenced Lands and Waters Consistent with Obligations and State Law Regarding the Allotment and Use of Water					
Measure	2009	2010	2011	2012	2013
5.1.1 % of fish species of management concern that are managed to self-sustaining levels, in cooperation with affected States and others, as defined in approved management documents (GPRA)	100% (23/23)	100% (23/23)	100% (23/23)	100% (23/23)	100% (23/23)
5.1.2 % of populations of native aquatic non-T&E species that are self-sustaining in the wild, as prescribed in management plans – Fisheries (PART)	99% (142/143)	99% (142/143)	99% (142/143)	99% (142/143)	99% (142/143)
5.2.1 % of populations of native aquatic non-T&E species managed or influenced by the Fisheries Program for which current status (e.g., quantity and quality) and trend is known - Fisheries (PART)	75%	76%	77%	78%	79%
5.2.2 % of populations of native aquatic non-T&E species with approved management plans - Fisheries (PART)	55%	55%	56%	56%	57%
5.3.1 % of tasks implemented, as prescribed in management plans - Fisheries (PART).	27%	28%	29%	30%	31%
5.5.1 The condition of NFHS mission critical water management assets, as measured by the DOI FCI, is x. (GPRA)	NA	NA	NA	NA	NA
7.12.1 % of populations of aquatic threatened and endangered species (T&E) that are self-sustaining in the wild - Fisheries (PART).	NA	NA	NA	NA	NA
7.12.2 % of populations of aquatic threatened and endangered species (T&E) with known biological status that are self-sustaining in the wild - Fisheries (PART).	NA	NA	NA	NA	NA
7.12.3 % of aquatic T&E populations managed or influenced by the Fisheries Program for which current status (e.g., quantity and quality) and trend is known - Fisheries (PART)	NA	NA	NA	NA	NA
7.12.4 % of aquatic T&E populations managed or influenced by the Fisheries Program with approved Recovery plans - Fisheries (PART)	NA	NA	NA	NA	NA

7.12.5 % of tasks implemented as prescribed in Recovery Plans - Fisheries (PART)	NA	NA	NA	NA	NA
12.2.4 # of activities conducted to support the management/control of aquatic invasive species - Fisheries (PART)	1	1	1	1	1
DOI Strategic Goal: Resource Protection					
Mission Goal: Protect the Nation's natural, cultural and heritage resources					
DOI End Outcome Goal 3: Protect Cultural and Natural Heritage Resources					
Measure	2009	2010	2011	2012	2013
DOI Strategic Goal: Recreation					
Mission Goal: Improve recreation opportunities for America					
DOI End Outcome Goal 1: Improve the Quality and Diversity of Recreation Experiences and Visitor Enjoyment on DOI Lands.					
Measure	2009	2010	2011	2012	2013
15.4.1 % of mitigation tasks implemented as prescribed in approved management plans - Fisheries (PART)	NA	NA	NA	NA	NA
15.4.6 % of fish populations at levels sufficient to provide quality recreational fishing opportunities - Fisheries (PART)	100%	100%	100%	100%	100%
15.4.10 Pounds per dollar (lbs/\$) of healthy rainbow trout produced for recreation – Fisheries (PART).	NA	NA	NA	NA	NA
DOI End Outcome Goal 2: Expand Seamless Recreation Opportunities with Partners					
Measure	2009	2010	2011	2012	2013
15.8.10 # of waters where recreational fishing opportunities are provided – Fisheries (PART) (GPRA)	NA	NA	NA	NA	NA
DOI Strategic Goal: Serving Communities					
Mission Goal: Improve protection of lives, property and assets, advance the use of scientific knowledge, and improve the quality of life for communities we serve					
DOI End Outcome Goal 3: Fulfill Indian Fiduciary Trust Responsibilities					
Measure	2009	2010	2011	2012	2013
DOI Strategic Goal: Management Excellence					

Mission Supporting Goal: Manage the Department to be highly skilled, accountable, modern, functionally integrated, citizen-centered and results oriented					
DOI End Outcome Goal 2: Advance Modernization/Integration					
Measure	2009	2010	2011	2012	2013
52.1.2 # of volunteer participation hours are supporting Fisheries objectives for Hatcheries - (GPRA)	NA	NA	NA	NA	NA
52.1.3 # of volunteer participation hours are supporting Fisheries objectives for FWCO - (GPRA)	800	800	800	800	800